

Price Rigidity in the UK

by

Yang Li

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Thesis Supervisors

Prof. Huw Dixon (Primary)

Dr. Peng Zhou (Secondary)

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Abstract

This thesis is an empirical study on UK CPI price quote data (Mar 1988-Dec 2019) provided by the Office for National Statistics. It extends the study by Zhou and Dixon (2018). I follow Dixon and Grimme (2022) to divide price spells into four subsets which are (+, +), (+, -), (-, -), and (-, +) spells. A (+, +) spell is a price spell that started with a price increase then ended with another price increase. The questions that have been answered in this thesis are first how each type of price spell behaves over time? Second, have prices become more flexible since the 2008 financial crisis? Third, what are the determinants of nominal rigidity? I first used the cross-section method developed by Dixon (2012), then I did some non-parametric and semi-parametric analysis (Cox proportional hazard model). Finally, I used panel regression with fixed and random effects to find the determinants of size of price changes. Here are some stylized facts on the UK CPI data: 1: The average price spell in the UK is about 10 months, and (+, +) spells have the longest average duration while (+, -) spells have the shortest average duration. 2: The proportion of (+, +) spells is the biggest, and more than 50% of the spells are (+, +) spells in the services sector. 3: The average frequency of price changes, which is defined as the percentage of price quotes that changed in each month, is about 21.42%. 4: The 12-month spike pattern that was widely seen in previous literature was only found in (+, +) spells. 5: Prices have become more rigid since the 2008 financial crisis. 5: Heterogeneity can be found among the 11 COICOP divisions. 6: Macro factors matter in the price setting process, and it takes about 3 months for them to have significant effects on nominal rigidity. 7: Monthly effects and regional variations are significant. 8: Our model is good in terms of goodness of fit for the goods sector.

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General Introduction

This thesis tries to answer three very important questions. Firstly, how does each type of price spell behave over time? Secondly, have prices become more flexible since the 2008 great financial crisis? Thirdly, what are the determinants of price rigidity in the UK? There has been a long history of work on empirical price data. Whilst one can of course go further back in history, a good place to start is the interwar period. Gardiner Means (1935) looked at BLS data on wholesale prices for 374 items from 1926-33. He found that 50% changes less than once every four months; 25% less than once every ten months; 13% less than 5 times in eight years. Rufus Tucker (1938) looked at US historical data and found that it had been much the same in the 19th Century. More recently, Alan Kackmeister (2007) looked at US retail data from 1889-91 and also found long durations of prices (over half of prices did not change at all in 24 months). In the UK, Hall and Hitch (1939) found similar results for a smaller sample of firms. In subsequent decades, there was research on prices, but these tended to be for specific industries and items, from newspaper prices to biscuits.¹

However, at the start of the new century there was an explosion of price data used in empirical price studies. The CPI and PPI price-quote microdata became accessible to some researchers. In Europe, there was the Inflation Persistence Network, where most Eurozone central banks gained access to this data from their respective National Statistical Institutes (NSIs). The results of the Eurozone studies were well summarized in Dhyne et al (2006). Simultaneously in the US, there was a study by Mark Bilal and Peter Klenow (2004). These studies tended to

¹ See the excellent summary of these papers in Kackmeister (2006) Table 1.

concentrate on the frequency of price changes in the data at the aggregate and disaggregated levels and the implied duration of price spells (which is best thought of as the reciprocal of the frequency). The monthly frequencies, which are defined as the percentage of price quotes that changed in each month, estimated varied between 10% of prices changing and 30% across countries, with even more extreme variations between different items or classes of goods and services within economies. A price-spell is a period of time when a particular seller charges the same price for the same good over a period of time. The frequency of 10% implies that the average spell lasts for 10 months; the frequency of 30% implies that the average spell lasts for 3.3 months.

Since many new Keynesian models were calibrated with price-spells lasting 12 months, these empirical findings were viewed as problematic. Patrick Kehoe (2004) commented that the short price-spells were problematic for “sticky-price enthusiasts”

“Observed price stickiness is short. On the empirical side Bils and Klenow (2003) and Klenow and Kryvtsov (2003) have dug up some interesting BLS data on individual goods price that shows that a key feature of the data is that the average time between price changes is relatively short, about 4 months. . . ”

There then followed a series of studies that used “filters” that resulted in increasing the average duration of price spells. The simplest of all was to remove sales, which typically consisted of short price spells starting with a drop which was soon reversed in full (or almost in full). A variety of filters were introduced to remove sales, as outlined for example in Nakamura and Steinsson (2008). If the before and after sales prices were the same, you could join together the

three spells into one much longer spell. Alternatively you could keep the two spells on either side and simply ignore the spell identified as a sale. Either way, the frequency of price changes fell as you took out the price changes associated with sales leading to an increase in the average spell length. Another method was to introduce “reference prices”. It was observed that prices might temporarily move around, but that they often returned to the same “reference” value. The idea was just to focus on the reference price and ignore the others. In practice, this means taking a window and using the modal price within that window. In effect, the modal (reference) price replaces other prices. This will remove sales, but also other “temporary” prices and of course lead to longer spells. Indeed, Patrick Kehoe and Vrnilu Midrigan concluded that “prices are sticky after all”, meaning after performing such filters (Kehoe and Midrigan 2015).

In this thesis, I adopt a different methodology developed by Huw Dixon in a series of papers. The first one was published as a working paper by the European Central Bank in 2006 (Dixon 2006), and later in Dixon (2012). The idea is that the distribution of price spells (and hence the frequency and mean price-spell) is not the best measure of nominal rigidity. What is really relevant is the cross-sectional distribution. In order to understand this, we can consider a simple example. There are two products which set their prices each month. Product 1 sets a different price each month, and so there are 12 one-month spells. Product 2 sets the same price for 12 months and so has one spell for the year. Below is a table containing durations of price spells for two products. Since product 1 sets a new price every month, there are twelve price spells for 12 months, and the durations for these price spells are all equal to 1. For product 2, it has only 1 price spell for every 12 months, and the duration for this price spell is equal to 12.

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>
Product 1	1	1	1	1	1	1	1	1	1	1	1	1
Product 2	12											

If we look at the frequency of price change (percentage of price quotes that changed in each month) over the year, it averages 0.54 (13/24): it is 0.5 for 11 months (February to December when only product 1 changes) and 1 in January when both prices change. Next, we can look at the average duration of a price spell. This is $1.9 = 24/13$ (12 one-month spells with 1 twelve-month spell). Clearly, $1.9 = 1/0.54$. However, if we take a cross-sectional view over the year, we have two products: one sets its price every month and the other once per year. Averaging across the two products gives us 6.5 months (13/2).

What matters most from the economic point of view is the distribution and average spell across products, not the distribution of price-spell durations (DD) itself and related statistics of frequency. The reason for this is that different products have different frequency of price changes, and we have different number of observations for different kinds of products. If you simply take the average on the duration of price spells, your result is going to be dominated by those products that you have more observations i.e. dominated by the ones that change prices more frequently product 1 in the previous table, and this is not going to be a good measure of the economy as a whole. The distribution across products is a *cross-sectional* distribution of durations (DAF). However, fortunately, there is a 1-1 relationship between the distribution of price spells and the corresponding cross-sectional distribution. This result was derived in Dixon (2006, 2012) and developed in Dixon and Le Bihan (2012) and Tian and Dixon (2022). What is perhaps the most important property of both DD and DAF is their 1-1 relationship with the survival function and hazard function. This is important, because we can use already existing estimation strategies for the Survival and hazard functions (notably the Kaplan-Mayer non-parametric estimator of the

survival function and the Cox semi-parametric proportional hazard model) as starting points for the estimation of the DAF.

The best way to think of the CPI micro data is as a panel dataset since it has an unbalanced panel structure. We record the price quotes for different products over a very long time period on a monthly basis, and a lot of these products are only available for certain months instead of the entire sample period. Each month there are observations of largely the same prices. Whilst there is some turnover and replacement of which prices are in the data set, we can exploit the panel structure to capture the DAF. There is a great diversity of behavior across different products: some prices change often (for example fresh vegetables, petrol), whilst others remain fixed for prolonged periods. The products with rapidly changing prices will generate a lot of price spells over time, whilst those with infrequent changes will generate few (as in our example above, where product 1 generated 12 per year as opposed to product 2 which generated just one per year). In DD, each spell has an equal weight which is reflected in the mean spell length, which is quite short in the CPI data for many countries. This was exactly what was behind the observation of Patrick Kehoe in 2004. The essence of the cross-sectional approach is that it weights price-spells by their duration: longer spells matter more than short spells. A simple way to understand this is to think of taking a snapshot of the economy in a particular month. What is the probability of observing a randomly chosen price spell in that month? Assuming that the start of the spell is random, a one period price spell has only one chance of being observed that month: it has to start exactly at that month. However, a 12 month spell has 12 chances: it can start any time in the preceding 11 months as well as the actual month itself to be observed. The 12-month spell is twelve times more likely to be observed than the 1 month spell in cross-section. This is a purely statistical point. However, as we saw from the two-product example, the cross section

reflects the structure of the economy. We can think of this in the way the CPI inflation statistic is constructed each month: prices are divided into different categories and weighted by expenditure shares. If we describe the structure of the economy, we use data from a particular period (output, GVA etc.). In this thesis I will adopt the framework developed by Huw Dixon that links together the survival function, hazard function and the distribution of price spells in both forms (unconditional DD and cross-sectional DAF).

According to Dhyne et al (2006), prices are more rigid in the Euro area compared to the USA. There are a lot of price decreases in the data. The different pricing behavior is driven by the heterogeneity across different products, and other factors like shop type, seasonality, and product specific inflation are also important for the price setting process. The pricing patterns are very different across retailers. Another study of price rigidity using micro-data by Klenow and Malin (2010) found other interesting facts like these prices change at least once a year. Similarly, they also found heterogeneity among different products plays an important role in the pricing setting process, but the probability of resetting a price does not increase with age of the price. There are many small price changes in the data, and changes in wage are clearly related to changes in price. A more recent study by Gautier (2022) used a much larger data set which covers four major economies (Germany, France, Italy, Spain) in the Euro area. They found heterogeneity across products but not across countries. The percentage of price quotes change, which is known as the frequency of price change, is about 12-14% in each month, and this number is smaller when excluding sales.

How firms adjust prices for their products is an important question in monetary economics because theory says nominal rigidity or sticky prices is the reason changes in the price levels can have real effects on output in the short run. When there's inflation in the

economy, everyone only observes his/her own prices, people do not realize that all prices have gone up in the short run. Therefore, people's wages stay the same due to this information lag. For example, a person who goes to groceries every day can realize that the prices for potatoes become higher on the same day of the price increase. But for other products, for example a computer, this person may find out the price changes for computer many months later via ads or from a friend. Given that the unit labor cost is fixed in the short term, these firms will hire more employees to make more profits since they can sell their products at higher prices in the short run. Over time, people start realizing that all prices have gone up, so their wages start to increase resulting that everything going back to its original level but with higher prices. So, we say money is neutral in the long run.

When firms try to decide whether to adjust their prices, there are many questions that need to be answered. As Ball and Romer (1990) say that nominal rigidity alone is not enough to generate real effects on output. In fact, it's the combination of nominal costs of price adjustments and real rigidities which come from imperfect goods and labor markets. There are two major branches of pricing models. One group of them is called time dependent pricing models (TDP), and the others are called state dependent pricing models (SDP). For TDP models, the longer a price has stayed the same the higher probability of resetting it in the next period. Two examples of TDP models are Calvo (1983) and Taylor (1980) models, and one major difference between these two is that you know exactly how many periods that a price will stay the same in a Taylor where in a Calvo model you do not have this information. For SDP models, the probability of resetting prices depends on the state of the economy. These firms face a profit maximization problem, they are reluctant to raise their prices because they are afraid of losing customers for doing so as mentioned by Rotemberg (1982) and Lünnemann and Wintr (2011). Another

important reason proposed by Mankiw (1985) is that these firms must pay a fixed cost before they can adjust their prices. One example is the menu cost model, suppose you walk into a restaurant, and you would have to browse these dishes with prices on a menu to place your order. The restaurant must print a new list of menus if there are substantial changes in the prices and this is accounted for as an extra cost to the restaurant. Some empirical evidence for the menu cost model has been found by Golosov and Lucas (2007). For SDP models, macro factors are important for the decision of resetting prices, evidence is found by Leine (2010). Some studies have found evidence for both TDP and SDP, see Baudry et al. (2007) and Kehoe and Midrigan (2015). The simple menu cost model has been criticized for not explaining price dispersions and many small price changes are temporary, but later correcting these issues, Midrigan (2011) finds greater real effects from monetary shocks by comparing regular prices (exclude sales) and posted prices (include sales). Besides sticky prices, another extension called sticky information was proposed by Mankiw and Reis (2002). Firms are able to adjust their prices every period, but they update their information only infrequently (with a probability). The related theory of rational inattention was put forward by Mackowiak and Wiederholt (2009), whereby the decision to update inflation is made optimally rather than by chance. However, both theories are inconsistent with the evidence on as mentioned before, each person only observes his/her own prices including the decision makers in these firms. So, these firms do not adjust their pricing strategy because these decision makers have not noticed all prices are increasing in the short run.

This thesis is organized as follows: In chapter 1, I'm showing how each type of price spell over the length of time since it started using the Kaplan and Meier (1958) estimator. I'll derive the hazard functions for each type of price spell and examined for heterogeneity among different divisions and UK regions. I'll compared the price setting process between the goods

and services sector. I'll also study the impact of the 2008 financial crisis on UK CPI retailer level price quotes data using both the Kaplan and Meier estimator and the cross-section method developed by Dixon (2012), and the log-rank test will be used to compare these survival curves. In chapter 2, I'll use the Cox proportional hazard model to find the determinants of price rigidity. The dependent variable will be the durations of price spells, and I'll include a lot of macro and micro covariates in the model in order to check whether there is evidence for SDP. Recall that the SDP says the price setting process depends on the state of the economy, thus these macro covariates are expected to have effects on the survival curves. A benchmark model with a full set of time dummies will also be estimated to examine the time effects on the survival curves, and this model should provide some evidence on the TDP pricing model. In chapter 3, I'll use the panel regression method to find determinants of the size of price changes. The dependent variable here is going to be the absolute percentage change in prices, and this will be properly defined later in chapter 3.

This thesis can be closely linked to two papers, Zhou and Dixon (2019) and Dixon and Grimme (2022). In Zhou and Dixon (2019), they also used UK CPI retailer level price quotes data, but their data only covered 1996m1 to 2008m1 while the data used in this thesis covered a much wider range which is from 1988m3 to 2019m12. They also used the Cox PH model, but I'll include more covariates in the model in order to gain a better understanding of the price setting process. For Dixon and Grimme (2022), they partitioned the price spells into four subsets (+, +), (+, -), (-, -), and (-, +), and estimated multinomial logit and probit models to find the determinants of price changes. The problem is that the logit model is essentially a cross-section econometric method which ignores the panel structure of the data. Survival analysis is more appropriate for this study since our data has an unbalanced panel structure. Another major

difference is that they used German firm-level survey data. This thesis is the first study on partitioned price spells that uses UK CPI retailer level price quotes data.

Chapter 1 Measuring Price Rigidity in the UK

1.1 Introduction

In this chapter we aim to measure price rigidity using the frequency of price changes and duration of price spells, and we also aim to answer the question that have prices become more flexible since the 2008 great financial crisis? The frequency of price changes refers to the percentage of prices being reset in each period. The higher frequency means higher price flexibility, and vice versa. In theory, firms are reluctant to raise prices due to the existence of fixed adjustment costs i.e. menu costs, but more firms will be willing to raise their prices to gain more profits since the adjustment costs become relatively smaller as inflation goes up. A lot of literatures tried to establish a link between inflation and frequency of price changes, and a lot of them found a positive relationship between these two, see Barro (1972), Ball et al. (1988), Golosov and Lucas (2007), Mackowiak and Smets (2008), Nakamura and Steinsson (2008), and Gagnon (2009) while Bils and Klenow (2004) found no evidence of such relationship exist between these two. Bunn and Ellis (2012) find a lot of small price changes in the data and goods prices change more frequently than services prices. Later Eichenbaum et al. (2014) find that these small changes in prices are measurement errors that if excluded prices would become stickier. As there are many distinct products in the economy, the differences in pricing strategy among them are huge. For example, prices for gasoline change more frequently than the price to get a haircut. Empirical evidences of heterogeneity in the price setting process among different kinds of products have been found by Baudry et al. (2007). Prices can also be categorized into regular prices and temporary prices, for example sales, and these regular prices last longer than temporary prices, see Kehoe and Midrigan (2015). Berardi et al. (2015) studied

the impact of the 2008 financial crisis, and they found that prices are more flexible after the crisis given that the frequency has gone up.

1.2 Data

There are several data sources for collecting these micro datasets., and the most popular micro data being used for this is the price quotes data collected by national statistical agencies, for example the U.S. Bureau of Labor Statistics (BLS) in the US, and the Office for National Statistics (ONS) in the UK. The price quotes that you see on store shelves are collected from retailers across the whole country, and they cover everything that you can buy from the stores. Besides the consumer price quotes, there are also Producer Price Index price quotes collected from producers. Theoretically, you should observe similar price movements from both CPI and PPI data since they both are price quotes for the same products, but that is not consistent with what the data suggests. The reason is because the ways that these two indices are constructed are different to serve different purposes. The CPI data can reflect the consumers' income levels since these retailer might charge higher prices if the income level of their customers become higher while the PPI data is trying to get rid of the revenue gained from these retailers so that it can reflect real output growth. Lots of studies using micro data have been done both in the U.S. and EU. Baudry et al. (2007) and Beradi et al. (2015) focused on the French CPI data, while Dhyne et al. (2006) included many EU countries (excluding UK) in their data set. CPI data from the UK was studied by Dixon and Tian (2017) and Dixon et al. (2020). Studies using UK CPI and PPI data were done by Bunn and Ellis (2009), Bunn and Ellis (2012), and Zhou and Dixon (2018).

The second source of micro data is called scanner data. When you check out at the till, the products' bar codes will be scanned by the machine, and these prices will be uploaded to their database. The difference between scanner data and retailer data is that these prices are

recorded when the products are being sold while for retailer data are the ones you see from their shelves. The scanner data can provide us additional information on the number of purchases for each product. The retailer level price quotes are usually collected by ONS agents once a month while the scanner price quotes are being updated every day, and this is one advantage for using scanner data since the price setting is a continuous process. But one drawback from using scanner data is that different products are being sold at different frequencies, therefore you will end up having very few observations for products that are sold less frequently. Some recent studies using scanner data were done by Midrigan (2011) and Eichenbaum et al. (2014) both using US data.

The third source is survey data where you design some questions for your research participants. Survey data can provide us some qualitative information for the products, for example you can your participants in the survey how would you rate on the levels 1 to 10 this product etc. Most studies were done using US data by Golosov and Lucas (2007), Leine (2011), and Levy et al. (2020), while Dixon and Grimme (2022) used German firm level survey data.

The last source of micro data is the internet or online data collected using web scraping tools. With the increased popularity of online shopping, there is need to compare these online prices with retailer prices. In theory, some internet prices should be lower than offline prices as sellers can reduce their rental and transportation costs by having less retailers. Different results have been obtained from comparing online prices in the US and EU. Lünnemann and Wintr (2011) found online prices are more rigid in the US than the euro area while Cavallo (2017) found that more than 70% of these online prices are identical to offline prices, and the frequencies and sizes of price changes are also similar to offline prices.

The data used in this study is UK data provided by the Office for National Statistics, and its CPI retailer price quotes data. These price quotes are collected once a month. Some price quotes are collected centrally by making phone calls while others are collected locally by ONS staff visiting these stores. In January each year, they select a bunch of representative products to represent consumers' baskets. The dataset covers monthly price quotes data from 1988 March to 2019 December (32 years/382 months). Data from 1988 March to 1996 Jan was provided by Richard Davies who is a professor at University of Bristol. On item level, for example eggs (pack of 6), you can buy them from store A or store B, you may get different price quotes for the same product if store A is located in London and store B is located somewhere in Northern Ireland. The number of price trajectories in our dataset is 1,125,379, and there are about 330,000 price quotes being collected each month across the UK. Since our data covers an exceptionally long time, you would see some products leave the data at some time point while some new products enter the data. Therefore, this data has an unbalanced panel structure. If a product was unavailable for less than or equal to 3 months, we assume its price stayed the same for the missing periods. For these months that this particular product, the ONS puts a 0 for its price quote, and they put the letter "M" in the indicator column to represent that the price quote for this product in this month was missing. What I did to these missing price quotes was to fill out these missing values using the previous available price quote of this product. If the missing periods were longer than 3 months, when it came back to the data it would be treated as a new product. Sometimes one product can be replaced by another product, and these two products are treated as the same product since they are perfect substitutes. One special type of price quote is sales, some people argue that sales should be included in the data as they are also price changes while others argue that sales should be excluded since they are temporary. We will examine the

results both with and without sales in this study. Some useful terminologies are introduced in the following table.

Table 1-1 Price Spells and Price Trajectories

Fresh Turkey Steaks per KG	2005(03)-2005(10)	2005(11)-2006(03)	2006(04)-2006(07)
price spells	4.48 price spell 1	4.99 price spell 2	4.98 price spell 3

The above table contains one price trajectory for “Fresh Turkey Steaks per KG” in a chained shop located in Scotland, and it covers the period from Mar. 2005 to Jul 2006. If the price for this product stays the same for at least 1 month, since the price setting process is continuous and we only observe once a month, then we call it a price spell. As you can see from the table above, there are three price spells on this price trajectory, and the duration for price spell 1 is 8 months. The number of products that have trajectories greater than 120 months (10 years) is 53,011. Some examples of products that have trajectories roughly equal to 10 years are bread and cereals and recreational and sporting services like services provided by golf courses, gyms, and bowling alleys. The number of products that have trajectories longer than 240 months (20 years) is 6,958. Some examples of products that have trajectories roughly equal to 20 years are medical products e.g., bandages and plasters, some games and toys also have about 20 years of trajectories e.g., electronic games, fireworks, and stamps for collection. The number of products that have trajectories longer than 260 months (30 years) is 149. Examples of products that have trajectories roughly equal to 30 years are all final products for clothing for all age groups, electronic appliances e.g., razors, hair dryers, and electronic toothbrushes, and household textiles like fabrics, pillows, and shopping bags. The following table shows some statistics for the trajectories. We can see that the mean is greater than the median, so it is positively skewed. A

2.5 skewness also suggests that there is more weight on the left tail of the distribution. The value of the kurtosis is big which suggests that there are many outliers compared with the normal distribution.

Table 1-2 Basic Statistics of Price Trajectories

	1%	25%	Median	75%	95%	Mean	Std.	Skewness	Kurtosis
Price Trajectory	1	7	22	83	118	35.84	42.82	2.5	8.55

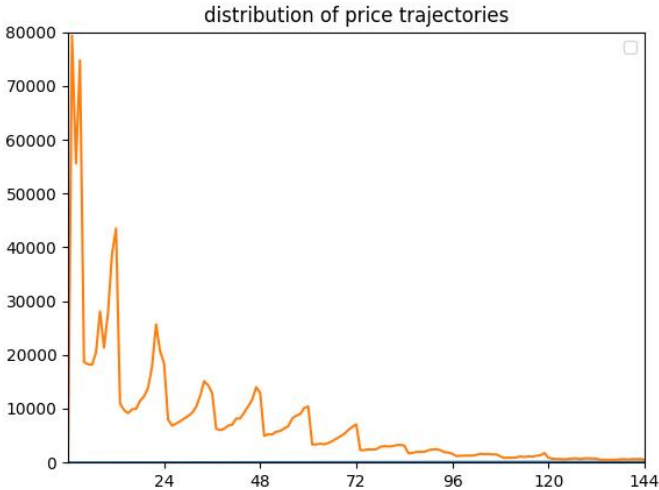


Figure 1-1 Distribution of Length of Price Trajectories

The above figure shows you the distribution of trajectories, and we can see that there is a 12-month spike pattern in the graph. There are about 1,125,379 price trajectories in the data.

There are two types of shops in the data. According to the definition made by the ONS, one is multiple shops, which have ten or more outlets, and the other type is independent shops that have less than 10 outlets. There are more price trajectories for multiple shops, and their price trajectories seem to last longer than independent shops.’ The number of multiple shops is about

twice as many as the number of independent shops, and the length of their trajectories is more dispersed as you can see from the higher standard deviation in the table.

Table 1-3 Basic Stats of Price Trajectories for Independent and Multiple Shops

Shop Type	Mean	Median	Std.	Skewness	Kurtosis	Obs
Multiple	38.84	23	46.13	2.42	7.64	745,426(66.24%)
Independent	30.32	19	35.15	2.35	8.21	368,142(32.71%)
Other						11,811(1.05%)
Total						1,125,379

These trajectories can also be grouped according to locations. There are thirteen regions in the UK according to the ONS. The average length of trajectories for each region is close to each other which is around 36 months. The standard deviations are similar as well except a lower value calculated for Northern Ireland, and this is since Northern Ireland is further apart from the other regions. The South East region has the most price trajectories while London is only ranked no. 2 from this list.

Table 1-4 Basic Stats of Price Trajectories for 12 UK Regions

Region	Mean	Median	Std.	Skewness	Kurtosis	Obs
Unknown	41.33	20	61.50	2.71	7.67	8,382(0.74%)
London	36.33	22	43.52	2.49	8.49	121,552(10.8%)
South East	35.92	22	42.78	2.41	8.05	159,064(14.14%)
South West	35.00	22	40.99	2.47	8.34	100,987(8.97%)
East Anglia	38.27	23	43.98	2.38	7.56	82,181(7.3%)
East Midlands	35.99	22	43.23	2.50	8.40	81,234(7.22%)
West Midlands	35.06	22	41.67	2.54	8.80	98,566(8.76%)
Yorkshire & Humber	35.04	22	41.32	2.47	8.55	95,546(8.49%)
North West	35.72	22	41.49	2.46	8.56	117,970(10.49%)
North	34.10	20	43.59	2.65	9.12	66,678(5.92%)
Wales	36.61	22	45.18	2.52	8.08	59,244(5.26%)
Scotland	36.31	22	44.13	2.58	9.21	91,551(8.14%)
Northern Ireland	35.17	22	39.89	2.28	7.36	42,424(3.77%)
Total						1,125,379

According to the Classification of Individual Consumption by Purpose (COICOP) all products and services can be grouped into twelve divisions. Consider the following example: on product level, you can buy beef from different suppliers or brands, and these products might have different names created by these producers. On item level, all these beef products are just being grouped as beef. On the class level, beef, lamb, and chicken etc. are all grouped under meat. Finally on division level, meat products along with other food products are grouped together under food and non-alcoholic beverages. There are twelve divisions according to COICOP. There are very few observations for division ten education services especially for the early years in the data. Therefore, education services are not included in this study.

Table 1-5 COICOP Structure

Level	<i>Example</i>
Product	Beef brand A, brand B etc.
Item	Beef
Class	Meat
Division	Food and non-alcoholic beverages
Aggregate	Twelve divisions in total

The average trajectories are quite different in each division, and same results are found by Dhyne et al. (2006) and Baudry et al. (2007) across sectors. The longest price trajectory, which is about 44 months, is from health-related products, and these products also show the highest standard deviation which suggests these products' trajectories also vary a lot within the health division. For information and communication products, their average price trajectory is only about 28 months which is 16 months less than the health division.

Table 1-6 Basic Stats of Price Trajectories for 11 COICOP Divisions

Divisions	Mean	Median	Std.	Skewness	Kurtosis	Obs
Food and non-alcoholic beverages	37.59	22	47.98	2.70	8.83	268,964(24.8%)
Alcoholic beverages, tobacco, and narcotics	39.67	24	47.70	2.43	7.39	51,446(4.74%)
Clothing and footwear	32.97	20	38.60	2.24	7.51	214,351(19.76%)
Housing, water, electricity, gas, and other fuels	36.68	22	46.57	2.65	10.04	34,144(3.15%)
Furnishings, household equipment and routine household maintenance	35.61	22	42.35	2.60	9.58	144,973(13.37%)
Health	43.98	30	52.08	2.38	6.76	15,136(1.4%)
Transport	35.85	24	39.41	2.14	6.45	48,893(4.51%)
Information and communication	28.34	19	30.61	2.80	11.84	4,287(0.4%)
Recreation, sport, and culture	36.82	24	39.92	2.70	13.77	103,060(9.5%)
Education services						
Restaurants and accommodation services	39.77	28	41.54	1.86	5.00	127,171(11.73%)
Miscellaneous Goods and Services	41.12	25	47.17	2.38	7.97	72,100(6.65%)
Total						1,084,525

The duration of a price spell is defined as the time elapsed since this price quote has stayed the same. For example, the price for an apple in Jan. was one pound each, then in Feb. its price increased to two pounds each and stayed the same until May. The duration for this price quote is three. The average duration of price spells in this data is only about 4.2 months. This is

because the frequencies of price changes are quite different in each division or sector. Some sectors change prices more frequently thus resulting in a lot of short spells observed on each price trajectory. Thus, simply taking the average of price spells is not a good measure of the economy wide price rigidity, and this is why I used the cross-section method developed by Dixon(2012).

Table 1-7 Basic Stats of Duration of Price Spells

	1%	25%	Median	75%	95%	Mean	Std.	Skewness	Kurtosis
Duration	1	2	3	5	12	4.20	4.28	4.18	34.84

1.2.1 Truncation

Let's go back to our price trajectory table again. For price spell 1 we know when it ended, but we don't know when it started. As you can see that, we don't know whether the price for this product in Feb 2005 is the same as we see in Mar 2005. 2008. Similarly, we know when price spell 3 started, but we do not know when it will end. Excluding price spell 1 is called left truncation, while excluding price spell 3 is called right truncation. Price spells 1 and 3 are called incomplete spells.

Table 1-8 Truncation Example

Fresh Turkey Steaks per KG	2005(03)-2005(10)	2005(11)-2006(03)	2006(04)-2006(07)
price	4.48	4.99	4.98
spells	price spell 1	price spell 2	price spell 3

We examine the effects of different truncation techniques using the following table. After getting rid of these incomplete spells, the average durations are smaller than their original values. In theory, people would expect a longer average duration after getting rid of all incomplete spells because these incomplete spells are shorter than complete spells. But, the average duration of

price spell is smaller for both sides truncated data. The reason is that if you remove 2 price spells from each price trajectory, the proportion of smaller price spells will be even bigger thus resulting a smaller average duration.

Table 1-9 Truncation Results

Duration	<i>Mean</i>	<i>1%</i>	<i>25%</i>	<i>Median</i>	<i>75%</i>	<i>95%</i>
Original	4.20	1	2	3	5	12
Left	4.05	1	2	3	4	11
Right	4.07	1	2	3	4	11
Both	3.82	1	2	3	3	10

The frequencies of price changes are given in the following table. The data is divided into two subsamples according to the 2008 financial crisis. The average frequency of price changes in the UK is about 21.42%, and it is slightly higher in the post-crisis period. Overall, there are more price increases. The percentage of price increases decreases after the crisis while the percentage of price decreases increases a little bit less than 1%. This result is different from what Baudry et al. (2007) found that frequencies for price increases and decrease are the same using French CPI data. The decreased frequencies after the 2008 financial crisis also contrast the results found by Berardi et al. (2015) using French data.

Table 1-10 Frequency of Price Changes

Frequencies	<i>full sample</i>	<i>pre-crisis</i>	<i>post-crisis</i>
price increases	11.57	12.01	10.86
price decreases	9.84	9.32	10.69
both	21.42	21.34	21.55

After removing sales from the data, the average frequency dropped about 4% to 17.53%. The frequencies are significantly lower in the post-crisis period which is given by more than 3%

less than the pre-crisis period. The frequency of price increases dropped more than the frequency of price decreases after the crisis. The reason for these results is because there are more sales in the post-crisis period.

From fig 1.2 we can see that when CPI inflation is higher, there are more price changes although the correlation is weak, and this result is the same as results found by Ball et al. (1988), Golosov and Lucas (2007), Gagnon (2009), and Dixon et al. (2020). The reason for this weak comovement between inflation and frequency of price changes is because inflation can positively affect the frequency of price increases and negatively affect the frequency of price decreases, and these two effects can almost offset each other when combined together as mentioned by Gagnon (2009) and Dixon and Grimme (2022). If we look at the frequencies from price increases only, the positive relationship is bigger between CPI inflation and frequencies. And, for frequencies from price decreases, they seem to move oppositely with inflation. This makes sense, because nobody wants to lower their prices when all prices are increasing in the economy. These graphs combined can explain why there exists such weak positive relationship between inflation and frequencies of price changes which was found by Nakamura and Steinsson (2008). Petrella et al. (2018) found that frequency of price changes comoves only with CPI deflation, and it has shifted from procyclical to countercyclical after the great financial crisis. Although Petrella et al. (2018) also studied UK CPI data, they applied the filter that was first mentioned by Nakamura and Steinsson (2010b) to filter out all sales prices in their paper. The data that's being studied here, there is a column called "indicator box" that marks all sales prices with a letter "S", and I could easily remove all sales prices using this information. In addition, they also removed all recovery price quotes, which are the price quotes that right after a sale ends, in the data while we here examine both cases with and without sales but always keep recovery price quotes in the data.

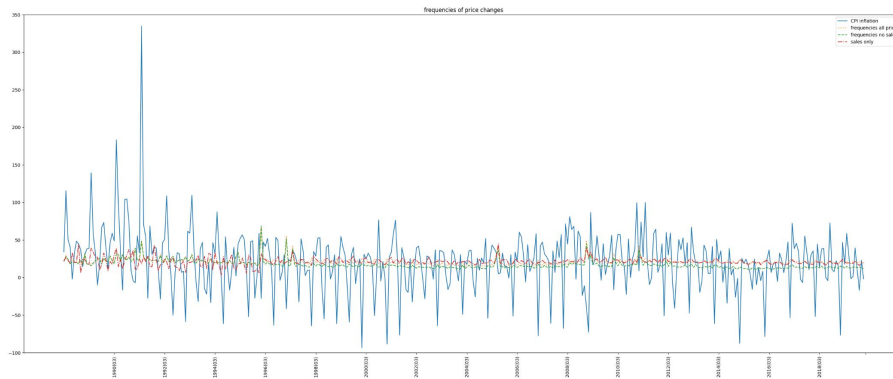


Figure 1-2 Frequencies of Price Changes

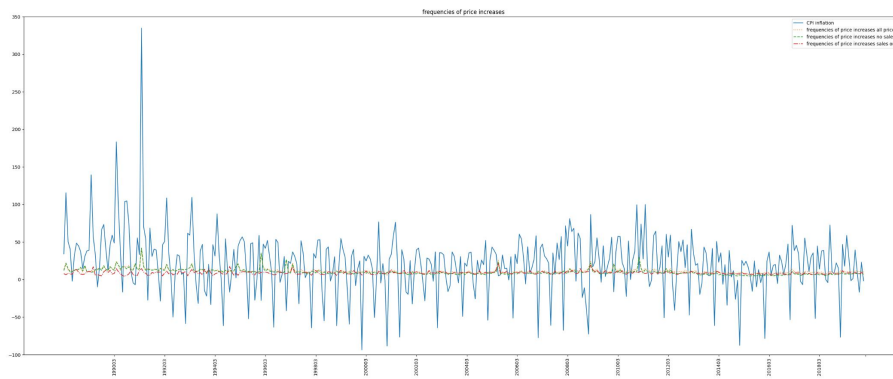


Figure 1-3 Frequencies of Price Increases

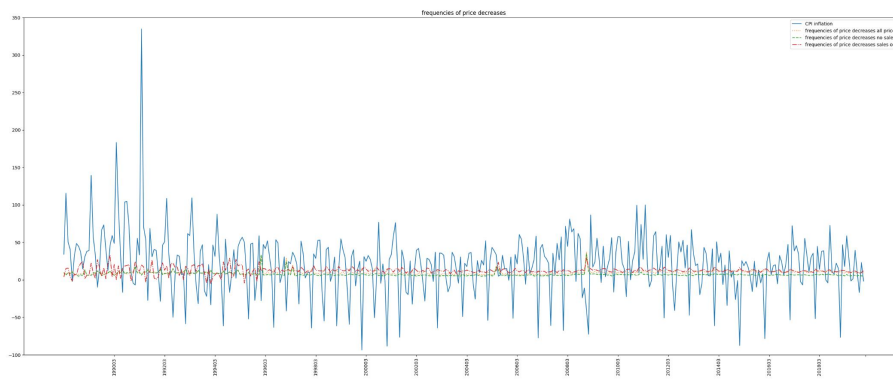


Figure 1-4 Frequencies of Price Decreases

Sales contribute a lot to the fluctuations in CPI inflation. As we can see from the following figure, the peaks for sales normally appear 1 or 2 periods before the peaks for CPI inflation. After the sales seasons, there is a lot of recovery prices which are higher than sales prices, and this contribute a lot to CPI inflation. This was also found by Berardi et al. (2015) using French CPI data.

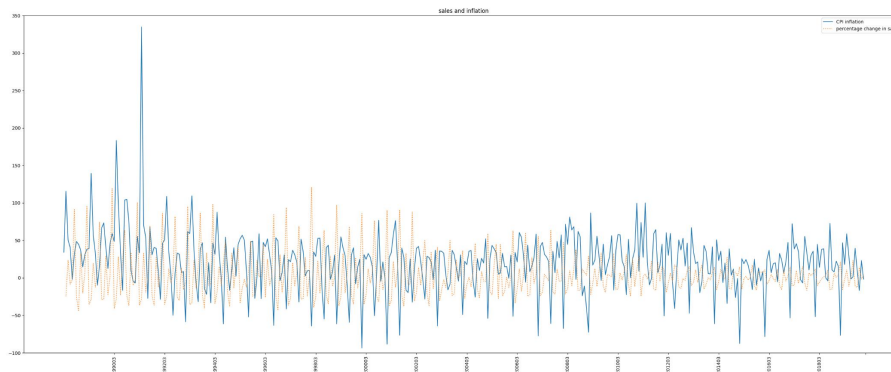


Figure 1-5 Sales and Inflation

One popular theory is that inflation can cause price dispersion which leads to welfare loss. We can check how standard deviation, kurtosis, and skewness react to CPI inflation on a graph. Standard deviation, which can be used to measure price dispersion, does not seem to have a strong relationship with CPI inflation. Kurtosis and skewness on the other hand seem to comove with CPI inflation, and kurtosis is more volatile than skewness. The positive relationship between inflation and kurtosis was also found by Dixon et al. (2020).

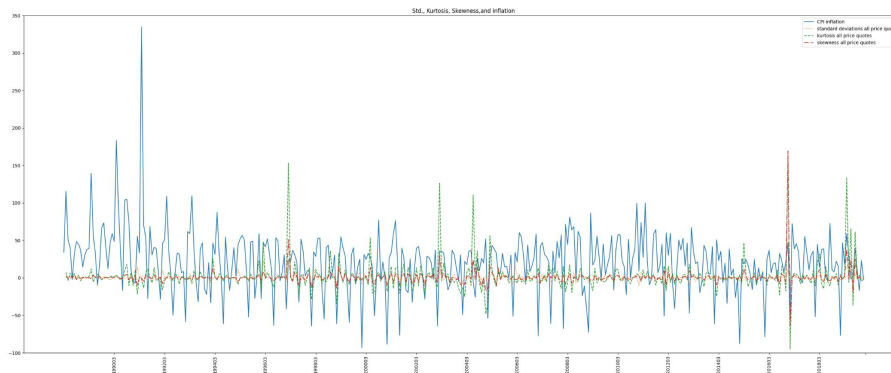


Figure 1-6 Std., Kurtosis, and Inflation

The general price level in the UK economy has gone up since the great financial crisis. After excluding sales in the data, the average price quotes become smaller. The reason is because sales are normally found in products that have higher prices. By excluding sales in the data, you actually removed a lot of high price quotes, and the result is a smaller average price quote.

Table 1-11 Basic Stats of Price Quotes (1)

	Full Sample			Pre-Crisis			Post-Crisis		
	average price quotes	geometric mean	median	average price quotes	geometric mean	median	average price quotes	geometric mean	median
Unit: GBP									
All Price Quotes	46.20	6.00	4.74	37.03	5.00	3.94	61.34	7.64	6.05
No Sales	41.67	5.63	4.40	33.88	4.72	3.69	54.56	7.13	5.58
Sales Only	129.8	20.12	17.62	124.3	21.78	19.28	138.9	17.38	14.88

Prices are more dispersed after the crisis according to the increased standard deviation here. Standard deviation almost doubled in the post-crisis period, and so did kurtosis which means the distribution of these price quotes are fatter tailed. Skewness only increased a little bit, but they are still much smaller than the average price quotes which means they are still positively skewed.

Table 1-12 Basic Stats of Price Quotes (2)

	<i>Full Sample</i>			<i>Pre-Crisis</i>			<i>Post-Crisis</i>		
Unit: GBP	<i>Std.</i>	<i>Kurtosis</i>	<i>Skewness</i>	<i>Std.</i>	<i>Kurtosis</i>	<i>Skewness</i>	<i>Std.</i>	<i>Kurtosis</i>	<i>Skewness</i>
All Price Quotes	172.40	155.19	9.12	128.97	119.68	8.17	244.17	213.88	10.67
No Sales	160.90	177.58	9.76	120.41	141.44	8.64	227.82	237.32	11.62
Only	321.21	52.36	5.55	290.49	43.89	5.29	372.00	66.36	5.98

1.3 Non-Parametric Method

1.3.1 Survival Function

In this section, we define the survival and hazard functions in discrete time. Here, our study subject is price spells, there are some terminologies I'd like to introduce first. A price spell is when the price of a product stays the same for some time, since we have monthly data a price spell can be greater or equal to 1 month. Note that the smallest measured price spell is 1 month, and this is because price setting is a continuous process, but we only observe it once a month. For example, we collected a price quote for one product that's priced at 1 pound per pack on 15th of Jan., by the time we collected this price quote this price change could have happened days ago. At the starting month of a price spell, we say this subject is born, or it enters our study. At the ending month of the spell, we say this subject has died, or it leaves our study. We are interested in the length from the starting date to the ending date, or the duration of this spell. The survival function tells you the probability that a price quote will survive past a certain time point. For example, it gives you the answer to a question like what is the probability of observing the same price quote for milk 300ml three months later?

The survival function can be written as:

$$S(t) = \Pr (T > t), F_T (t) = 1 - S(t) \quad (1.01)$$

where T represents a random lifetime. The range of our S(t) is between 0 and 1 since it is a probability function. Note that in the initial period S(t) is equal to 1, and in the last period it should equal to 0. So, we can say that S(t) is a non-increasing function. F_T is the cumulative density function of T.

1.3.2 Hazard Function

Like the survival probability, if the studying subject did not survive from Feb to Mar, then we say the death event has occurred. The proportion of price spells that died from last period to this period is called the hazard rate. Consider the following example, we have the number of price spells in Jan, Feb, and Mar. In Feb, two spells died with only eight spells left. So, we say eight spells survived from Jan to Feb, and this gives us a survival probability of 80%. The hazard rate is simply 20%.

time	Jan	Feb	Mar
number of spells	10	8	6

To estimate the survival function, we can use the estimator created by Kaplan and Meier (1958). Let d be the number of death events, and let F be the longest price spell. Let i be the length of the spells, where i = 1, ..., F. The letter n which represents the number of price spells at risk, these spells survived from last period, but they could die in the next period, and that is why they are called spells at risk. S(t) can be written as:

$$\hat{S}(t) = \prod_{t_i < F} \frac{n_i - d_i}{n_i} \quad (1.02)$$

To estimate the hazard function, we have the Nelson (1972)-Aalen (1978) estimator:

$$\hat{H}(t) = \sum_{t_i < F} \frac{d_i}{n_i} \quad (1.03)$$

The cumulative hazard function is just adding up the hazard rates cumulatively until the last period. In the last period, this should be equal to 1 as all price spells will die eventually. But be careful that in our data we have spells that we do not observe their death events, so things can be different here.

In the initial period, the survival probability is one, and the number of death events d_i is 0 since all subjects are alive at the beginning otherwise, they won't enter our study. Let i be the length of a price spell, there exists a relationship between the survival function and the hazard function such that:

$$\hat{S}(i) = \prod_{t=1}^F (1 - \hat{H}(t)) \quad (1.04)$$

Dixon (2012) derived three distributions to compare these pricing models, and I will show these one by one. Before discussing the three distributions, we need to define \bar{h} which is given by the following equation:

$$\bar{h} = \frac{1}{\sum_{i=1}^F \hat{S}_i} \quad (1.09)$$

where the denominator $\sum_{i=1}^F \hat{S}_i$ is simply the sum of all survival probabilities.

1.3.3 The Three Distributions

1.3.3.1 Distribution of Durations

The first distribution is called the distribution of durations, where a duration is just how long a price spell lasts. The length from the beginning to the end can take $i = 1, \dots, F$. The distribution of durations can tell us the proportion of spells that last exactly i periods. We know the survival probability \hat{S}_i , and it represents the probability for that price spell surviving to the i th period. In order to have spells last for exactly i periods, this spell must die in i_{t+1} period, and the probability can be represented by the hazard rate which is \hat{h}_i . Now we have the proportion of spells that last exactly i periods:

$$\hat{\alpha}_i^d = \hat{S}_i \hat{h}_i \quad (1.10)$$

1.3.3.2 Distribution of Ages

Age is how long a price spell has lasted since its birth. Similarly, the distribution of ages is just the proportion of spells that has “lived” $i = 1, \dots, F$ periods. To get the proportion of price spells at age i we have the following:

$$\alpha_i^A = \bar{h} S_i \quad (1.11)$$

where S_i indicates that a spell can survive to period i , and \bar{h} can guarantee the time that it's lived can add up. The relationship between the distribution of durations and distribution of ages can be expressed by the following equation:

$$\alpha_i^A = \frac{\bar{h}}{h_i} \alpha_i^d \quad (1.12)$$

1.3.3.3 Duration Across Firms

The Duration Across Firms (DAF) refer to the length of a price spell from its birth event to its death event. The DAF can be expressed as:

$$\hat{\alpha}_i = \bar{h}i\hat{h}_i\hat{S}_i \quad i = 1, \dots, F \quad (1.13)$$

Recall eq (1.10), we know $\hat{S}_i\hat{h}_i$ gives us the spells that last exactly i periods, then time \bar{h} will give us those spells for a single cohort. Next, we multiply i to get all cohorts with spells that last exactly i periods. The relationship between DAF and distribution of ages can be written in the following equation:

$$\alpha_1 = \alpha_1^A - \alpha_2^A$$

$$\alpha_i = i (\alpha_i^A - \alpha_{i+1}^A)$$

$$\alpha_F = F \alpha_F^A \quad (1.14)$$

1.4 Dual Hazard Model

So far we have just considered the length of a price-spell and not considered how it began or ended. In this this thesis I am arguing for the sub-division of price-spells to better understand how prices behave. We can subdivide price-spells into two subsets depending on whether they end with a price-increase or price-decrease. These two subsets can be further divided into two, depending on whether they start with an increase or decrease. That gives us a partition of the whole sample of uncensored spells.

According to Dixon and Grimme (2022), the hazard functions can be estimated for each of the four subsets outlined above. A price spell could either start with a price increase or a price

decrease, similarly, it could end with either a price increase or a price decrease, so we have four different types of hazard rates. Denote $h(+, +)$ for the hazard function of price spells that start with a price increase, then end with a price increase. So, the four hazards are $h(+, +)$, $h(+, -)$, $h(-, -)$, and $h(-, +)$. The following table gives you some examples of different types of price spells. The price quote for product A increased from 2 to 3 in Feb, then stayed the same for 3 months. It then increased to 5 in May. So, product A has a $(+, +)$ price spell with 3 months duration. Similarly for product B, the price quotes for B decreased from 3 to 2 in Feb, then stayed the same for 3 months. In the end, it increased to 3 in May. So, product B has a $(-, +)$ price spell with 3 months duration.

time	Jan	Feb	Mar	Apr	May
A	2	3	3	3	5
B	3	2	2	2	3

Since one of the questions we are trying to answer in this chapter is have prices become more flexible after the 2008 great financial crisis, next we split our dataset into two subsets. The pre-crisis sample is from 1988m3 to 2007m12, and the post-crisis sample is from 2008m1 to 2019m12. We could also single out the year of 2008 as the crisis sample, but we have about 10 years of data in the pre and post crisis samples, so single out 1 year's data as the crisis period does not make big differences compared with more than 10 years of data. Note that we can only use uncensored price-spells for this analysis. With left-censored data we do not observe how the spell began and with right censored data how the spell ended.

Note that if we had complete uncensored data, there would be an identity: every price spell that ends with an increase (decrease) would correspond to a spell that starts with an increase (decrease). This identity would mean that the proportion of spells with $(+, -)$ would be exactly

equal to the proportion with (-, +). Whilst we find that these proportions are quite close in the data, they do sometimes differ by 1-2% of the total. The reason is the presence of censored spells. We might observe a spell beginning with an increase, but the previous spell is left out if it is left censored, and vice versa for right censored spells.

Based on the data from the following table, we can see that most of the price spells started with a price increase then ended with another price increase. The price spells that both started and ended with a decrease was the least common to find in the data. This could reflect the fact that people were less willing to lower their prices. We can compare (+, +) and (+, -), the proportion of the first type of spells were much greater than the second type which means that people were reluctant to reduce prices. For the services sector, (+, +) took more than half of the total spells, and the proportion of spells that started with a price increase took about 70% of the total spells. This is much greater than this number in the goods sector, which is only about 58%. For pre- and post-crisis periods, we observe more (+, -) spells and less (+, +) spells after the crisis. In Appendix 3 we show the corresponding proportions after removing sales from the data, the proportion of (+, +) increased while the proportion of (+, -) spells decreased. The total number of price spells is 2,462,838 with 1,361,576 spells from the pre-crisis period sample and 793,505 spells from the post-crisis period sample. The sum of the two numbers from pre- and post-crisis periods is 2,155,081 which is smaller than 2,462,838. The reason is because break a lot of complete spells that covers 2007m12 and 2008m1 by splitting the dataset, and we then removed all these incomplete spells.

Table 1-13 Proportions of Four Types of Spells for Goods and Services Sectors

with sales	<i>Full Sample</i>				<i>Goods Sector</i>				<i>Services Sector</i>			
proportion	(+,+)	(+,-)	(-,-)	(-,+)	(+,+)	(+,-)	(-,-)	(-,+)	(+,+)	(+,-)	(-,-)	(-,+)
full sample	39%	22%	17%	22%	35%	23%	19%	23%	54%	17%	11%	19%

pre-crisis	39%	22%	18%	22%	36%	23%	19%	22%	54%	16%	11%	19%
post-crisis	37%	24%	18%	22%	34%	24%	19%	23%	51%	18%	11%	20%

These numbers are very different in each division. Proportions of (+, +) spells are very high in division 2 alcoholic beverages, tobacco, and narcotics, and division 11 restaurants and accommodation services. These goods and services are not necessary goods or services as you see in division 1 contains necessary food and non-alcoholic drinks that most people require which has a much lower proportion of (+, +) spells. Information and communication on the contrary have the lowest proportion of (+, +) spells and highest proportion of (-, -) spells. This must be to do with all these cheap data or text monthly packages offered by the suppliers. After removing sales, these proportions become only slightly different which is around 1% difference for most of them.

Table 1-14 Proportions of Four Types of Spells for 11 COICOP Divisions

Divisions (with sales)	(+,+)	(+,-)	(-,-)	(-,+)
Food and non-alcoholic beverages	37.54%	21.93%	18.55%	21.97%
Alcoholic beverages, tobacco, and narcotics	58.16%	15.81%	8.72%	17.32%
Clothing and footwear	29.74%	27.96%	20.06%	22.23%
Housing, water, electricity, gas, and other fuels	41.24%	21.10%	11.50%	26.15%
Furnishings, household equipment and routine household maintenance	30.63%	23.13%	20.15%	26.09%
Health	48.72%	18.06%	13.62%	19.60%
Transport	38.09%	21.88%	15.57%	24.46%
Information and communication	23.07%	26.31%	27.09%	23.53%
Recreation, sport, and culture	29.28%	22.89%	24.64%	23.18%
Restaurants and accommodation services	66.41%	11.03%	6.58%	15.98%
Miscellaneous Goods and Services	41.20%	21.96%	15.26%	21.59%

Changes between pre- and post-crisis periods among goods are small, as you can see from the following table only about 2% for most of them. We can see some tremendous changes in the three divisions. Firstly, for health division, the proportion of (+, +) spells is much lower (about 18% drop) in the post-crisis period, and all the other three types of spells have about 6% higher proportion each. Secondly, for transport services and goods, (+, +) spells dropped about 4% after the crisis while (-, +) and (+, -) spells both increased about 2-4%. Finally, for information and communication services, (+, +) spells increased about 10% in the post-crisis period, and the proportion of (-, -) spells decreased about 10%.

Table 1-15 Proportions of Spells for 11 COICOP Divisions pre- and post-crisis

Divisions (with sales)	(+,+)		(+,-)		(-,-)		(-,+)	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Food and non-alcoholic beverages	37.44 %	35.76 %	21.36 %	24.03 %	18.90 %	19.11 %	22.31 %	21.10 %
Alcoholic beverages, tobacco, and narcotics	58.94 %	56.62 %	14.94 %	18.10 %	8.34% %	9.42% %	17.77 %	15.87 %
Clothing and footwear	30.38 %	29.05 %	28.21 %	28.39 %	19.89 %	20.54 %	21.52 %	22.02 %
Housing, water, electricity, gas, and other fuels	39.55 %	40.06 %	21.47 %	21.71 %	11.91 %	12.61 %	27.06 %	25.62 %
Furnishings, household equipment and routine household maintenance	29.83 %	31.87 %	23.24 %	23.67 %	21.26 %	19.41 %	25.66 %	25.05 %
Health	57.60 %	39.55 %	15.19 %	21.77 %	10.64 %	16.03 %	16.57 %	22.64 %
Transport	37.88 %	33.83 %	21.07 %	25.63 %	16.85 %	14.37 %	24.20 %	26.17 %
Information and communication	19.27 %	29.17 %	26.45 %	25.99 %	31.34 %	21.93 %	22.93 %	22.91 %
Recreation, sport, and culture	28.53 %	28.52 %	22.81 %	23.62 %	26.52 %	24.31 %	22.14 %	23.55 %

Restaurants and accommodation services	65.27 %	67.87 %	11.14 %	11.36 %	7.64%	5.66%	15.95 %	15.11 %
Miscellaneous Goods and Services	41.64 %	39.35 %	21.43 %	23.79 %	15.30 %	15.96 %	21.62 %	20.90 %

The proportions of each type of price spell across each region are similar suggesting there is no regional heterogeneity in the UK.

Table 1-16 Proportions of Price Spells for 12 UK Regions

Region (with sales)	(+,+)	(+,-)	(-,-)	(-,+)
Unknown	29.73%	25.42%	19.00%	25.84%
London	38.82%	22.12%	17.04%	22.02%
South East	39.03%	21.95%	17.02%	22.00%
South West	39.52%	21.65%	16.87%	21.96%
East Anglia	39.23%	21.81%	17.21%	21.75%
East Midlands	39.14%	21.79%	17.34%	21.72%
West Midlands	38.78%	21.78%	17.38%	22.06%
Yorkshire & Humber	38.81%	22.05%	17.21%	21.93%
North West	38.93%	21.72%	17.32%	22.03%
North	37.87%	21.95%	17.84%	22.34%
Wales	38.16%	21.70%	17.86%	22.28%
Scotland	38.36%	22.05%	17.69%	21.90%
Northern Ireland	38.17%	22.65%	17.61%	21.57%

Interesting results are found in the pre- and post-crisis periods across each region as shown in the table below. The proportions for (+, +) spells all decreased in the post-crisis period, but we can see some a more than 5% drop in the Northern Ireland region. Similar large changes can be found in the other three types of spells in Northern Ireland. This different pattern we found in Northern Ireland is probably due to it is located further from the rest of the UK and the cost of living there is less expensive while England, Scotland, and Wales are located closer to each other thus probably have similar price setting process.

Table 1-17 Proportions of Spells for 12 UK Regions pre- and post-crisis

Region (with sales)	(+,+)		(+,-)		(-,-)		(-,+)	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Unknown	34.19 %	25.09 %	25.40 %	27.20 %	18.12 %	17.88 %	22.30 %	29.83 %
London	38.49 %	37.51 %	22.12 %	23.32 %	17.47 %	17.80 %	21.92 %	21.37 %
South East	38.94 %	37.04 %	21.66 %	23.68 %	17.55 %	17.69 %	21.85 %	21.60 %
South West	40.05 %	36.44 %	21.09 %	23.83 %	17.21 %	17.74 %	21.65 %	21.99 %
East Anglia	39.54 %	37.26 %	21.47 %	23.31 %	17.50 %	17.95 %	21.49 %	21.48 %
East Midlands	39.65 %	36.90 %	21.09 %	24.14 %	17.79 %	17.75 %	21.47 %	21.21 %
West Midlands	39.15 %	36.85 %	21.44 %	23.46 %	17.42 %	18.10 %	22.00 %	21.59 %
Yorkshire & Humber	39.11 %	36.43 %	21.60 %	23.90 %	17.44 %	18.05 %	21.85 %	21.62 %
North West	39.36 %	36.57 %	21.24 %	23.77 %	17.53 %	18.18 %	21.88 %	21.48 %
North	38.71 %	35.24 %	21.45 %	23.93 %	17.62 %	19.05 %	22.22 %	21.78 %
Wales	38.31 %	36.70 %	21.56 %	23.17 %	17.94 %	18.59 %	22.19 %	21.53 %
Scotland	38.24 %	36.82 %	21.86 %	23.48 %	18.03 %	18.39 %	21.88 %	21.32 %
Northern Ireland	40.92 %	34.03 %	21.95 %	24.23 %	16.28 %	19.66 %	20.84 %	22.07 %

These numbers are very different for different shop types. First, (+, +) spells dominate all other types of spells, and this is more obvious in the independent shops. This can reflect that prices in these multiple shops are more stable than independent shops. Besides (+, +) spells, the proportions for the other three types are all little bit higher for multiple shops as they are more flexible to deal with price volatilities. After removing sales from the data, the proportion of (+, +) spells for independent shops increased almost 4%, which means these independent shops are more willing to have these sales. This could be the result that independent shops are doing worse to deal with economic shocks than multiple shops.

Table 1-18 Proportions of Prices Spells for Independent and Multiple Shops

Shop Type (with sales)	(+,+)	(+,-)	(-,-)	(-,+)
Multiple	37.66%	22.27%	17.96%	22.11%
Independent	43.58%	20.51%	14.47%	21.44%

These proportions show similar changes after the financial crisis in 2008. One exception is the proportion of (-, +) spells, this number is smaller in the post-crisis period for multiple shops while it is bigger for independent shops.

Table 1-19 Proportions of Spells for Independent and Multiple Shops pre- and post-crisis

Shop Type (with sales)	(+,+)		(+,-)		(-,-)		(-,+)	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Multiple	38.38	36.06	21.77	23.91	17.97	18.55	21.88	21.48
	%	%	%	%	%	%	%	%
Independent	42.43	40.13	20.70	22.38	15.50	15.52	21.37	21.96
	%	%	%	%	%	%	%	%

1.5 Hazard and Survival Function Plots

First let us plot the hazard functions from four types of price spells on one graph. We can see that these hazard functions behave differently. For the blue solid line which represents hazards functions from (+, +) spells, there is a spike 1 period before period 12, and there is another spike 12 months later, so on and so forth. This 12-month spike pattern or seasonality is only shown for (+, +) spells, and this is a consistent finding with Dixon and Grimme (2022). The hazard rates for (+, +) spells are smaller than hazard rates for the other three types of spells in the first 7 or 8 months. Although survival functions and hazard functions look quite differently on the graphs, but they can be easily derived from one to the other by definition. They also tell you similar stories, recall the hazard rate is the percentage of death events at a specific time point. In

Figure 1-8 we can see there is a spike for (+, +) spells at month 11 on the hazard function plot which means that the percentage of the death event is very high in that period. Similarly, there is a huge drop for (+, +) spells in month 11 on the survival function plot which suggests the same thing. For the survival function plots, the blue line (+, +) spells is above the other which suggest higher survival probability in each period, similarly the hazard function plots suggest low hazard rates for the (+, +) spells as it is below the other lines except for the spikes. They both suggest (+, +) spells are more rigid than the others. One advantage of using the hazard function is that it allows us to see the effects from the covariates on the instantaneous hazard rates from a semi-parametric model which I'll introduce in the second chapter. Hazard functions will be used for analysis throughout this thesis.

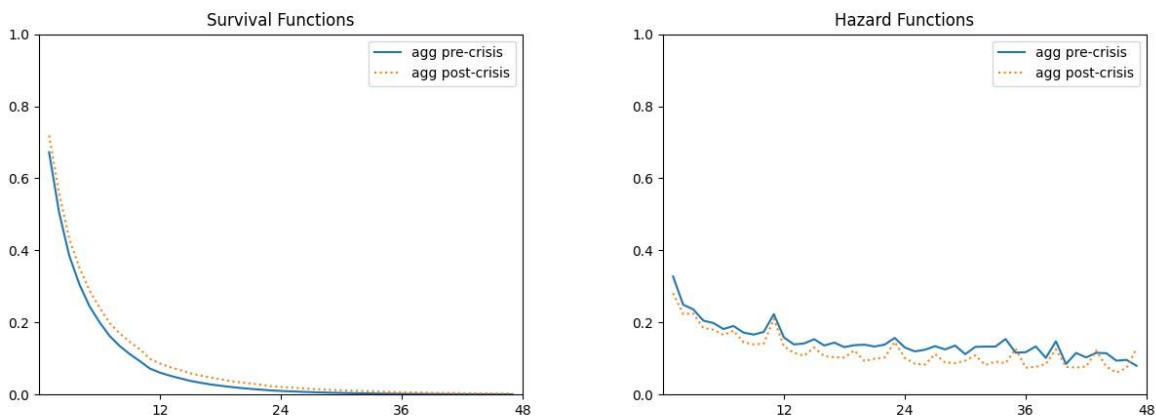


Figure 1-7 Survival and Hazard Functions at Aggregate Level

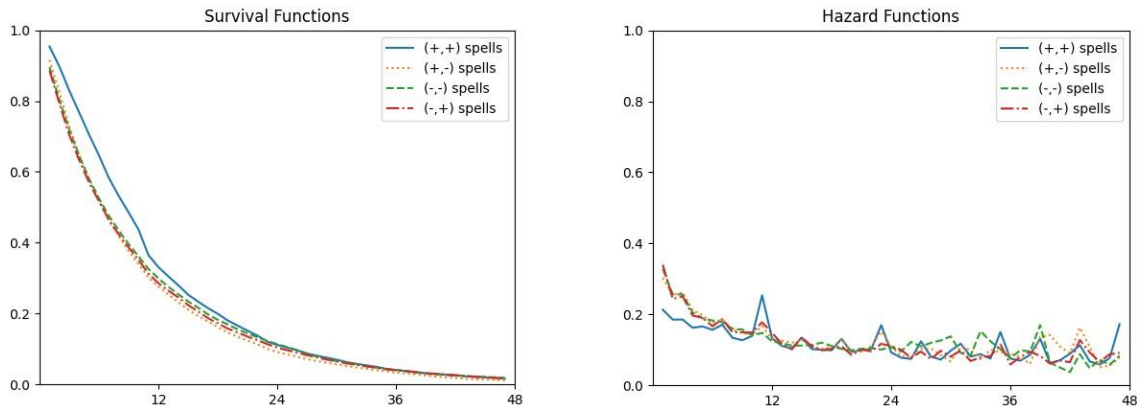


Figure 1-8 Survival and Hazard Functions for Four Types of Price Spells

Now we compare each type of hazard functions between pre- and post-crisis periods using the following figures. We can see that the hazard rates are higher in the pre-crisis period which is indicated by the blue solid line in the figures. Around period 36, we can see some crossing between these two lines. Since higher hazard rates mean prices are more flexible, we can say that prices are generally more rigid in the post-crisis period.

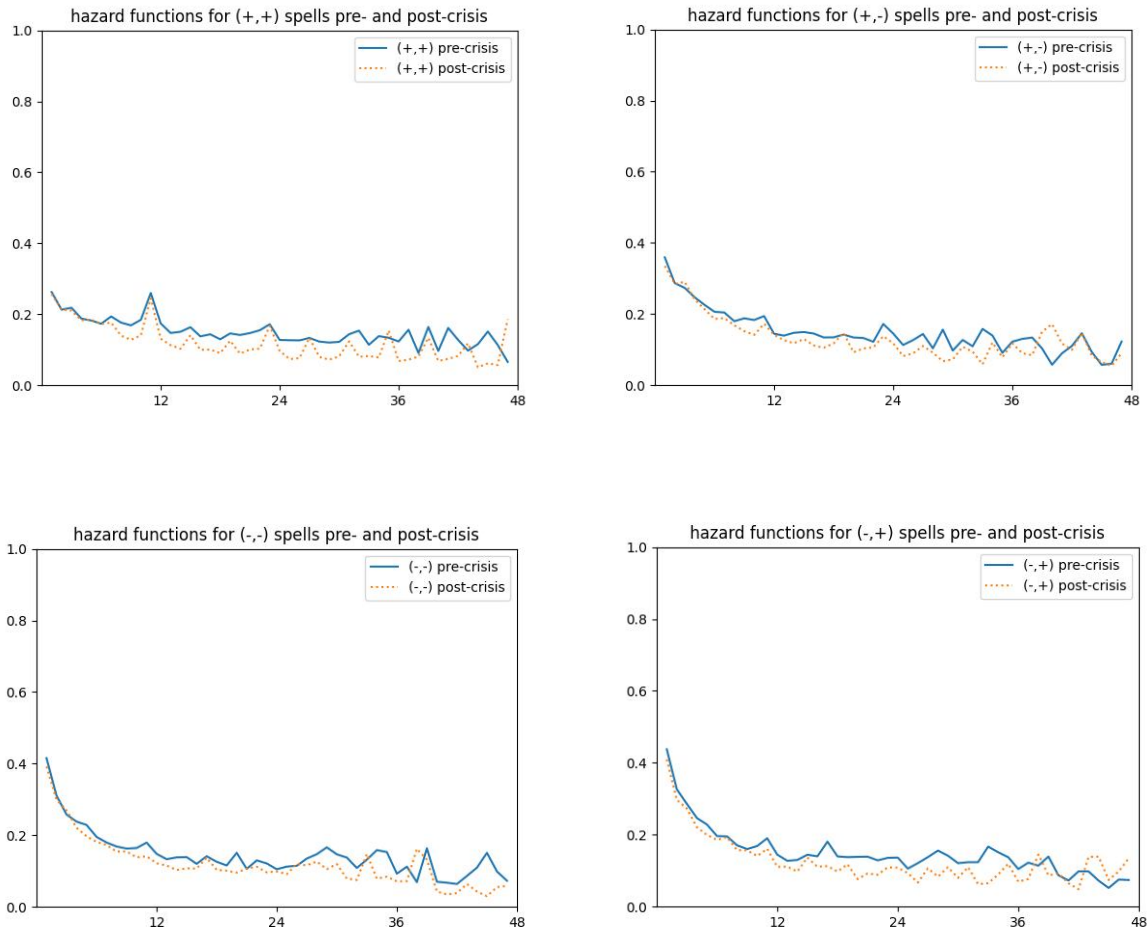


Figure 1-9 Hazard Functions pre- and post-crisis

1.5.1 The log-rank test

There is a simple test called the log-rank test that can be used to test whether there is significant survival difference between different survival curves.

The procedure is simple, you just need to create this table and fill in these numbers for each period. The letter d in the table is the number of death event. A price quote might survive from the last period, but it still has a chance to die in this period, that's why these price quotes are called prices at risk as shown in the following table. After creating this table, you can then compare the hazard ratio for each period. For example, suppose people who smoke are twice as

riskier to get lung cancer compared to non-smokers in Jan 2022. So, the hazard ratio in Jan 2022 is 2. The alternative hypothesis for the log-rank test is that this hazard ratio varies over time, for example it could become 2.4 in Nov 2022. The null hypothesis is that for any time you calculate this hazard ratio, it should always equal to 2, in other words the hazard ratio is a constant and it does not vary over time.

Table 1-20 Log-rank Test Example

	Dead	At Risk	Total
Pre-crisis	d_{pre}	n_{pre}	$d_{pre}+n_{pre}$
Post-crisis	d_{post}	n_{post}	$d_{post}+n_{post}$
Total	d_{total}	n_{total}	$d_{total}+n_{total}$

Let us denote $i = 1, 2, 3, \dots, F$ the length of months has elapsed since the start of a price spell, where F is duration of the longest price spell. Let $n_{pre,i}$ and $n_{post,i}$ denote the number of spells at risk in each group at time i , and $d_{pre,i}$ and $d_{post,i}$ denote the number of deaths in each group at time i . Finally, we define $n_i = n_{pre,i} + n_{post,i}$ and $d_i = d_{pre,i} + d_{post,i}$. If we use the letter $g = pre-, post-$ crisis to denote the two groups, then $n_{g,i}$ follows a hypergeometric distribution with expected value $E_{g,i} = d_i \frac{n_{g,i}}{n_i}$ and variance $V_{g,i} = E_{g,i} \left(\frac{n_i - d_i}{n_i} \right) \left(\frac{n_i - n_{g,i}}{n_i - 1} \right)$, the null hypothesis is that the hazard functions from each group are the same, $H_0: h_{pre}(t) = h_{post}(t)$. The test statistic Z for all $i = 1, 2, 3, \dots, F$ can be obtained by the following formula:

$$Z_g = \frac{\sum_{i=1}^F (d_{g,i} - E_{g,i})}{\sqrt{\sum_{i=1}^F V_{g,i}}} \text{ for } g = pre - crisis \text{ or } post - crisis \quad (1.15)$$

The log-rank test follows a chi-squared distribution with degrees of freedom equal to one. The log-rank test gives the same weight to all calculations. In table 1-21, I show the log-rank test results comparing pre- and post-crisis survival curves at aggregate level. According to the P

value in table 1-21, which is smaller than 0.05, we got, we can reject the null hypothesis in favor of accepting the alternative hypothesis that there is significant survival difference between pre- and post-crisis period. Same tests were also applied to the partitioned survival curves, and from the p-values we can conclude that there is significant survival difference between pre- and post-crisis period for all four types of price spells.

Table 1-21 Log-rank Test Results

pre- and post-crisis survival difference test	Test Statistic	P-value
aggregate level	5,232.15***	<0.005
(+,+) spells	200.81***	<0.005
(+,-) spells	1,768.31***	<0.005
(-,-) spells	191.27***	<0.005
(-,+) spells	679.15***	<0.005

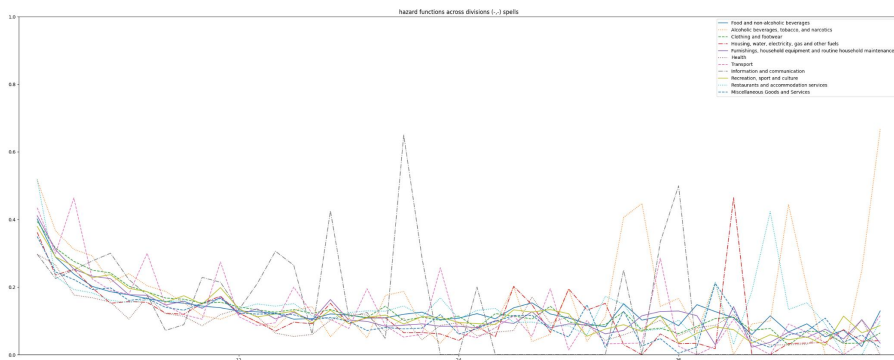
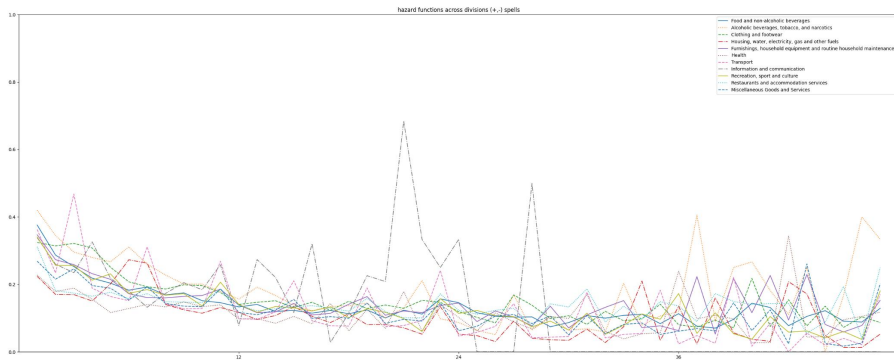
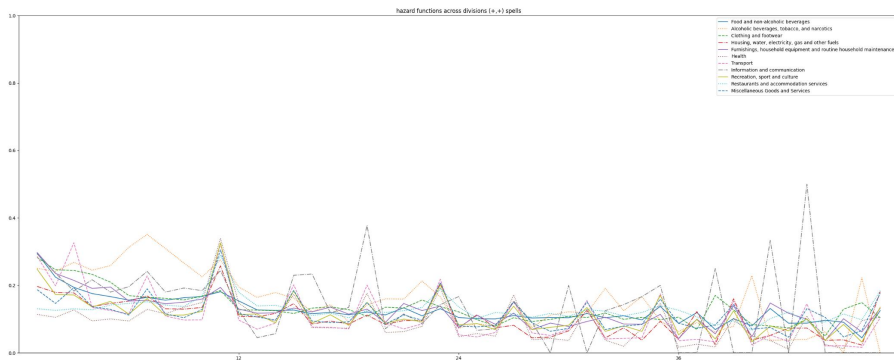
In table 1-22, I use the log-rank test for heterogeneity among divisions, regions. As well as between independent and multiple shops, and between goods and services sectors. For divisions, the null hypothesis is all 11 survival curves that derived from 11 divisions are identical. As you can see from the following table, we should reject the null hypothesis of no survival difference given these very small p-values.

Table 1-22 Log-rank Test Results among Divisions, Regions, independent and multiple shops

	Test Statistic	P-value
divisions	2,483.28***	<0.005
regions	1,293.48***	<0.005
shop type	16,777.81***	<0.005
goods and services	20,719.9***	<0.005

1.5.2 Hazard function plots for each division

We then compare these hazard functions across 11 COICOP divisions using both the log-rank tests and the hazard functions. The log-rank tests are used for testing whether there is significant survival difference before and after the great financial crisis at aggregate level as well as for the partitioned spells. The hazard rates for (+, +) spells for food & non-alcoholic beverages and information & communication divisions are higher than the rest indicating prices in these two divisions change more frequently than the others. Also, we see more spikes on the graph for information and communication. For the other three types of spells, their hazard functions are more volatile as there are more spikes. The differences among divisions are also much bigger for (+, -), (-, -), and (-, +) spells. We can see that these hazard lines co-move for (+, +) spells, but not for the other types.



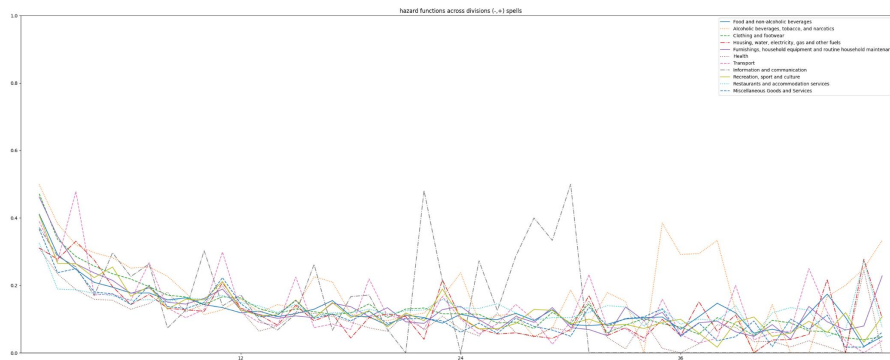


Figure 1-10 Hazard Functions Across 11 COICOP Divisions

For food and non-alcoholic beverages, like the aggregate level hazards, hazard rates for (+, +) spells starts lower than the other three then slowly catches up. The hazard rates for (+, -) and (-, +) spells have similar movements, while hazards for (-, -) spells tend to move slightly differently as shown on the graph. The results from the log-rank tests show that there is significant survival difference before and after the great financial crisis in 2008.

Table 1-23 Log-rank Test Results for Food and Non-alcoholic Beverages

Food and non-alcoholic beverages	Test Statistic	P-value
aggregate level	3,344.32***	<0.005
(+,+) spells	593.87***	<0.005
(+,-) spells	751.02***	<0.005
(-,-) spells	217.17***	<0.005
(-,+) spells	379.65***	<0.005

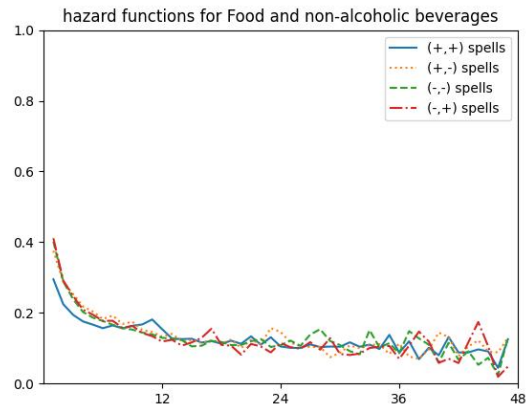
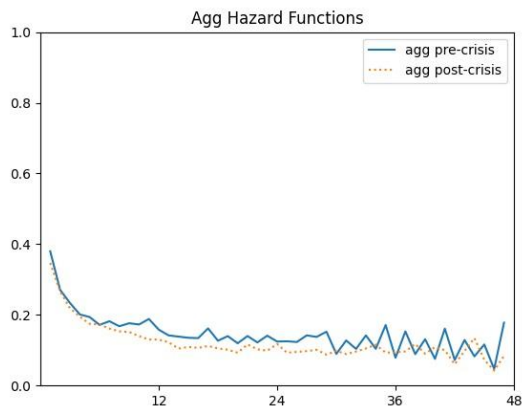
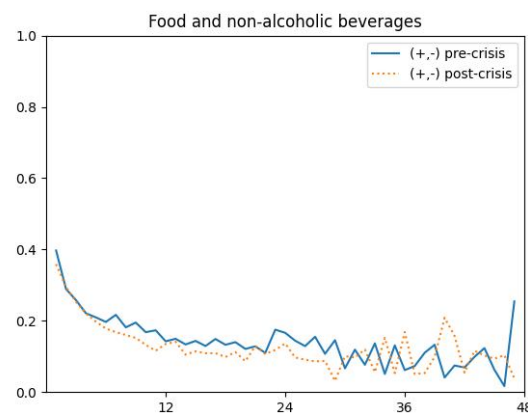
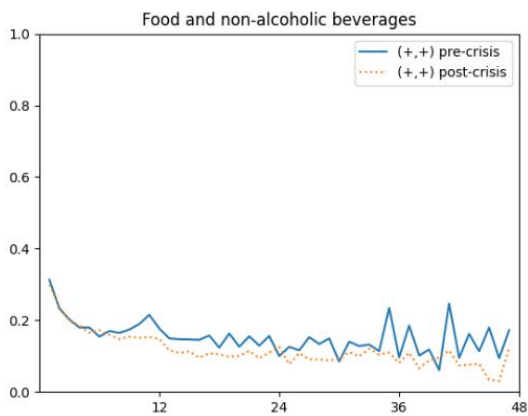


Figure 1-11 Hazard Functions for Food and Non-Alcoholic Beverages

There are not many spikes in the first twenty-four periods. Hazard rates are always higher in the pre-crisis period for (+, +) spells while hazard lines cross each other several times starting around period 28 for the other three types of spells.



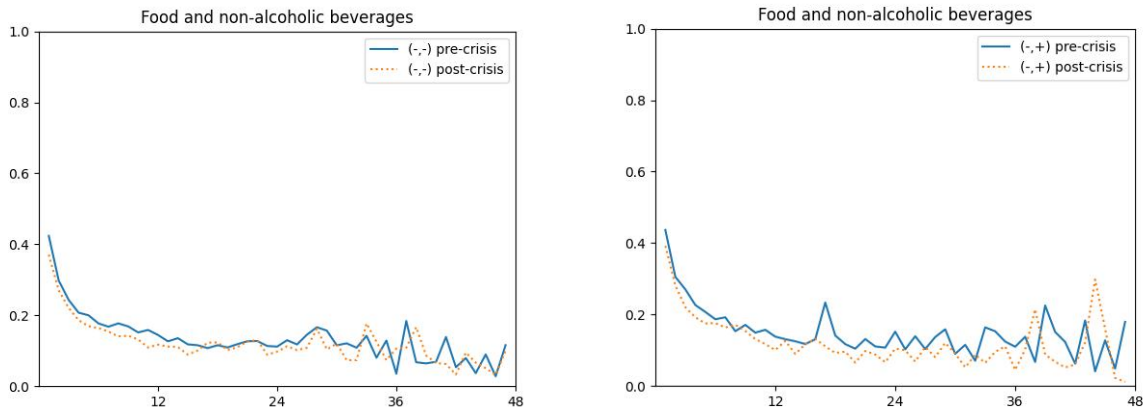


Figure 1-12 Hazard Functions for Foods and Non-alcoholic Beverages pre- and post-crisis

For alcoholic beverages, tobacco, and narcotics, the differences among the four types of spells are big, and the hazard lines are more volatile compared to food and non-alcoholic beverages.

Table 1-24 Log-rank Test Results for Alcoholic Beverages, Tobacco, and Narcotics

Alcoholic beverages, tobacco, and narcotics	Test Statistic	P-value
aggregate level	197.66***	<0.005
(+,+) spells	179.2***	<0.005
(+,-) spells	258.81***	<0.005
(-,-) spells	20.19***	<0.005
(-,+) spells	54.9***	<0.005

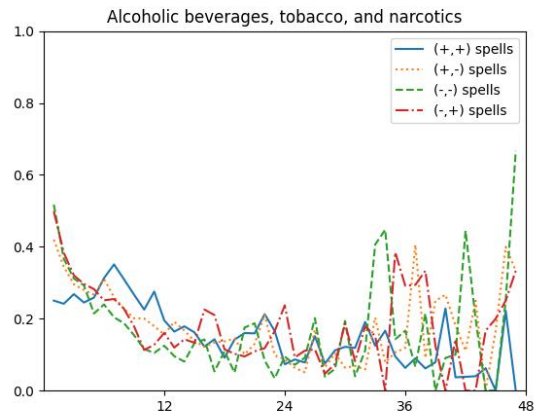
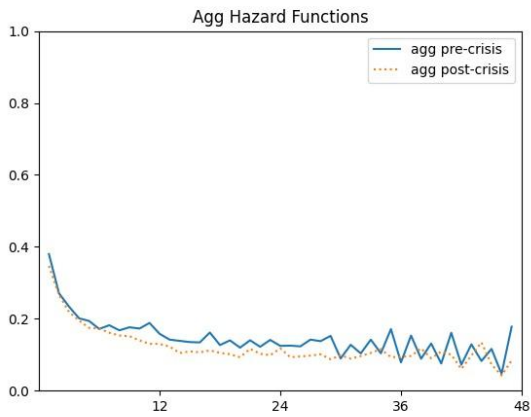
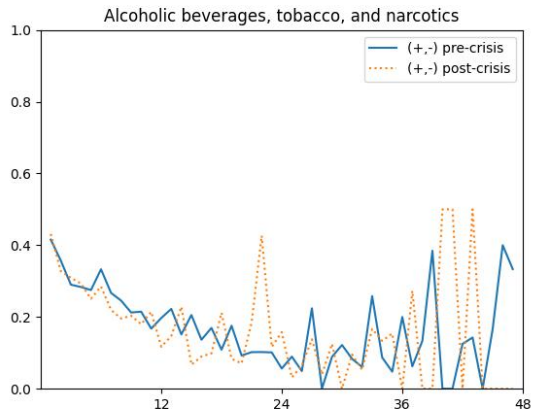
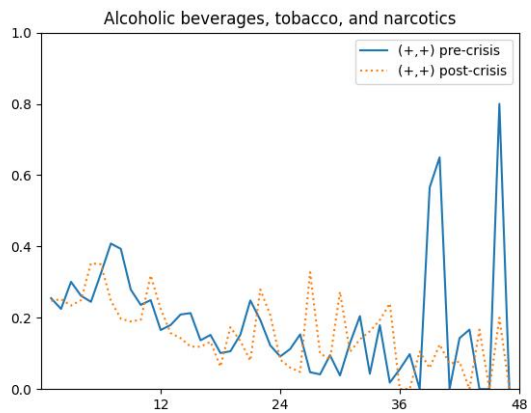


Figure 1-13 Hazard Functions for Alcoholic Beverages, Tobacco, and Narcotics

For (-, -) and (-, +) spells, their hazard rates become 0 after about 36 periods, and that means no prices can last longer than 36 periods in the post-crisis period.



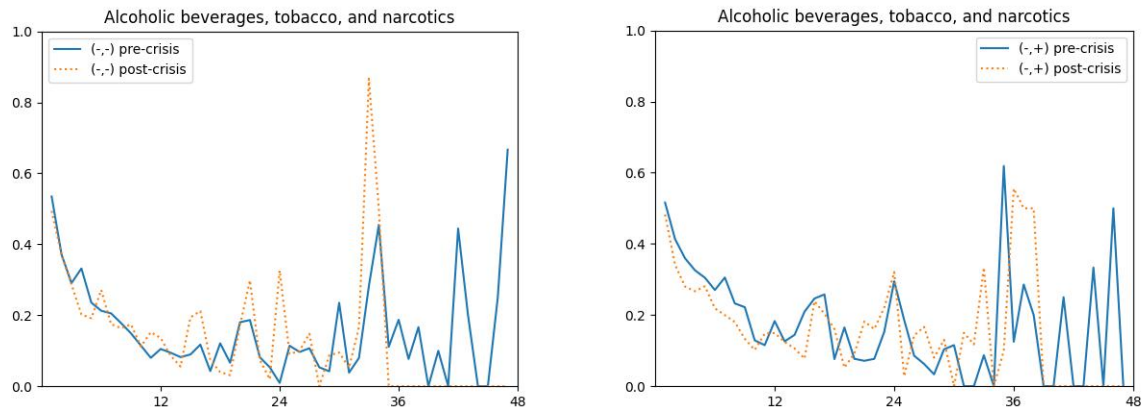


Figure 1-14 Hazard Functions for Alcoholic Beverages, Tobacco, and Narcotics pre- and post-crisis

For clothing and footwear, these hazard functions are a bit like the ones we see from food and non-alcoholic drinks division. There are not too many differences among the four types of spells.

Table 1-25 Log-rank Test Results for Clothing and Footwear

Clothing and footwear	Test Statistic	P-value
aggregate level	1,196.88***	<0.005
(+,+) spells	33.32***	<0.005
(+,-) spells	427.03***	<0.005
(-,-) spells	232.9***	<0.005
(-,+) spells	240.53***	<0.005

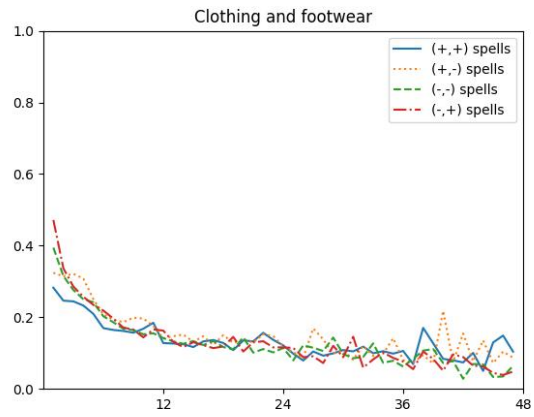
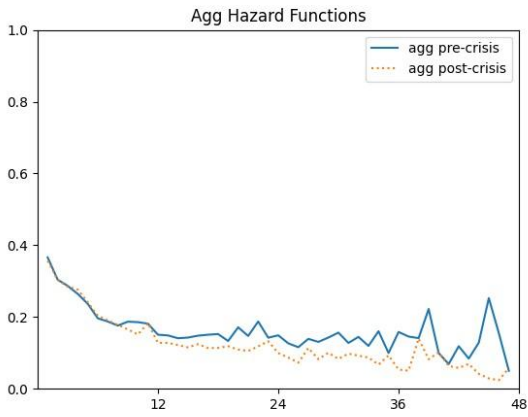
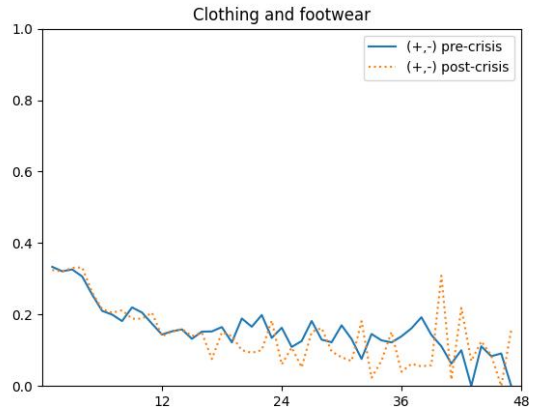
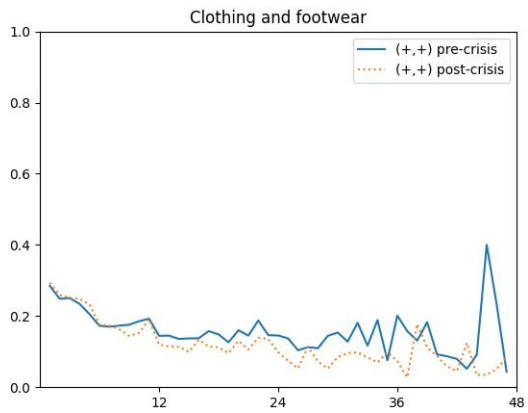


Figure 1-15 Hazard Functions for Clothing and Footwear

For (+, +), (-, -), and (-, +) spells, the hazard rates are higher in the pre-crisis period, but for (+, -) spells, hazard rates in the post-crisis period become higher after about 40 periods.



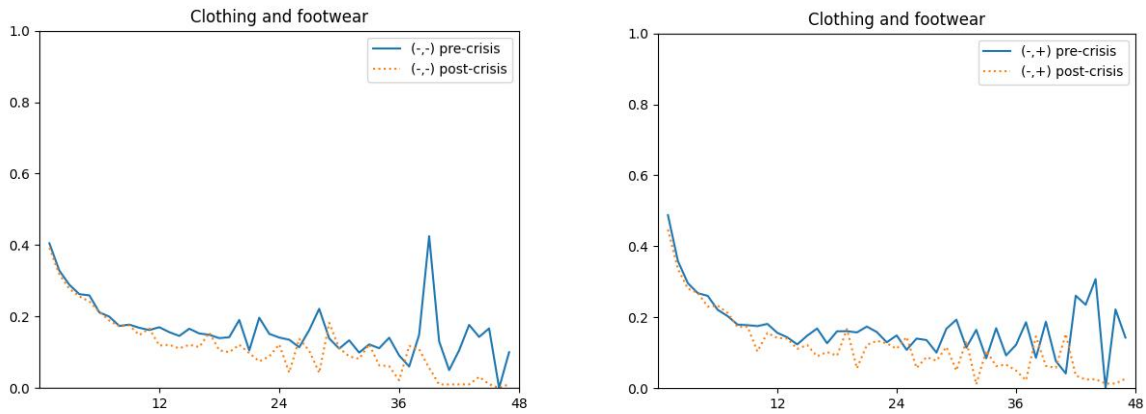


Figure 1-16 Hazard Functions for Clothing and Footwear pre- and post-crisis

For housing, water, electricity, gas and other fuels, the hazard rates for (+, +) and (+, -) spells seem to move similarly. The hazard rates for (+, -) spells are also small for the starting a few periods which you normally you would only observe this for (+, +) spells. The log-rank test results show us that there is no significant survival difference before and after the great financial crisis for price spells that started with a price cut.

Table 1-26 Log-rank Test Results for Housing, Water, Electricity, Gas, and Other Fuels

Housing, water, electricity, gas, and other fuels	Test Statistic	P-value
aggregate level	139.46***	<0.005
(+,+) spells	7.11***	0.01
(+,-) spells	13.19***	<0.005
(-,-) spells	1.39	0.24
(-,+) spells	0.92	0.34

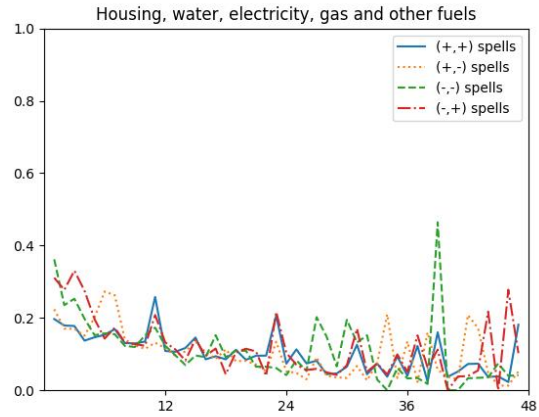
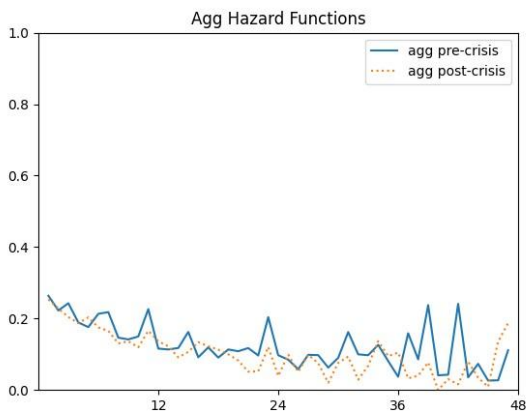
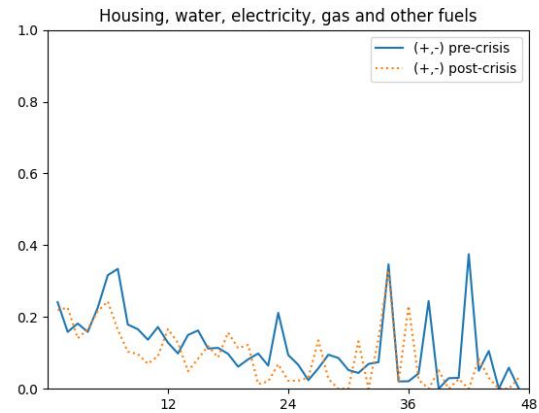
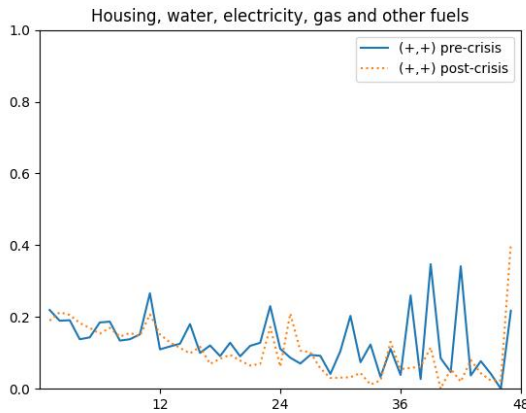


Figure 1-17 Hazard Functions for Housing, Water, Electricity, Gas, and Other Fuels

Hazard rates are higher for the pre-crisis period in most parts of the hazard functions. We can see some big spikes in the post-crisis period for (-, -) around period 14 and onwards.



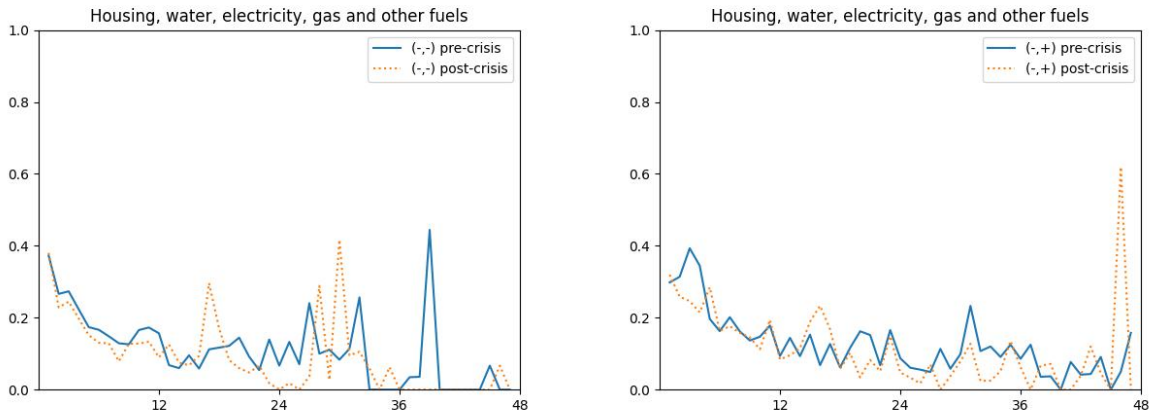


Figure 1-18 Hazard Functions for Housing, Water, Electricity, Gas, and Other Fuels pre- and post-crisis

For furnishings, household equipment and routine household maintenance, we see a lot of spikes in the hazard function after 36 periods for (+, -) spells. For (+, -) spells, the log rank test result is only significant at 5% and 10% significant level.

Table 1-27 Log-rank Test Results for Furnishings, Household Equipment, and Routine Household Maintenance

Furnishings, household equipment and routine household maintenance	Test Statistic	P-value
aggregate level	2,791.59***	<0.005
(+,+) spells	60.24***	<0.005
(+,-) spells	5.65**	0.02
(-,-) spells	6.49***	0.01
(-,+) spells	37.76***	<0.005

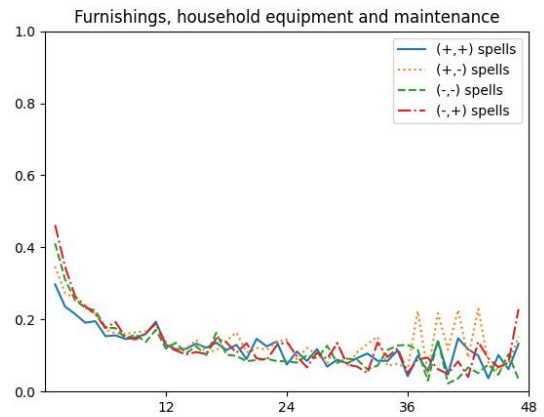
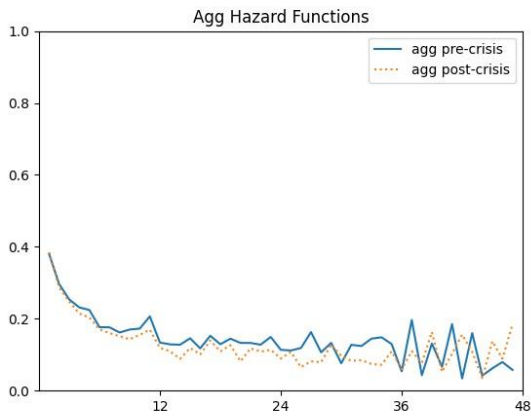
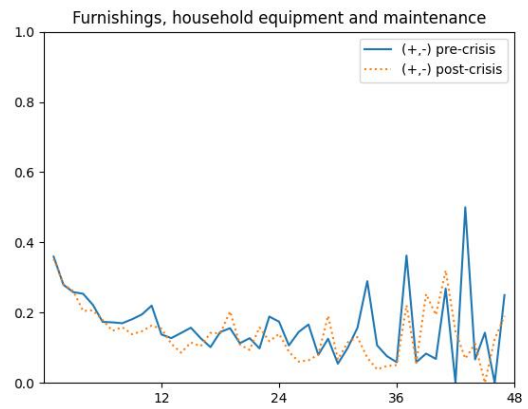
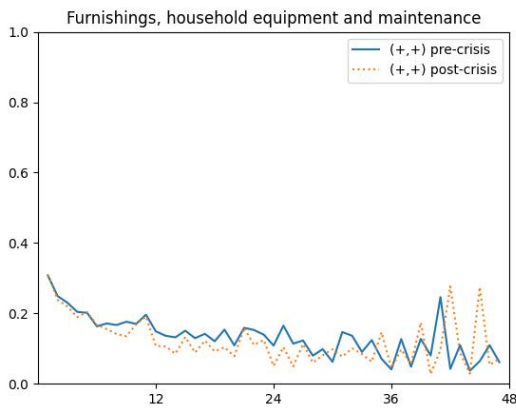


Figure 1-19 Hazard Functions for Furnishings, Household Equipment, and Maintenance

After the first 14 to 16 periods, we begin to see some big differences in the hazard functions between pre- and post-crisis periods. In general, prices are flexible in the pre-crisis period.



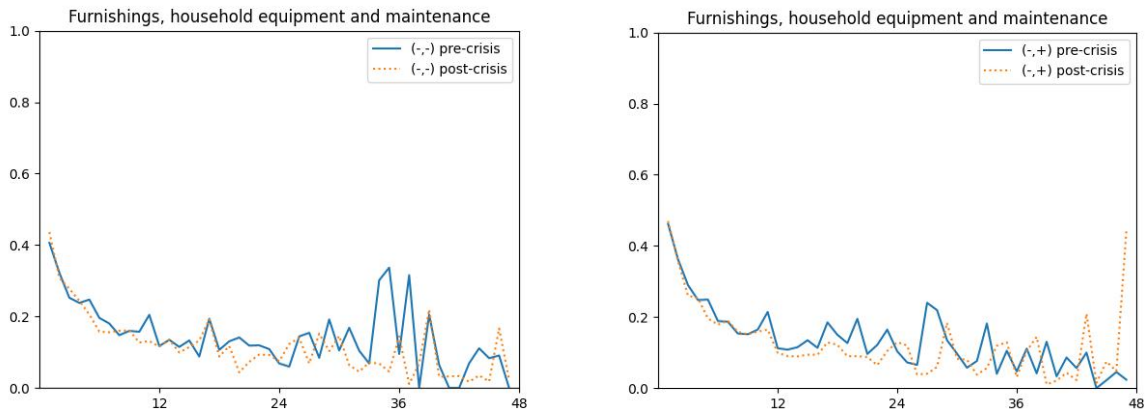


Figure 1-20 Hazard Functions for Furnishings, Household Equipment, and Maintenance pre- and post-crisis

For the health division, there are large spikes in the hazard functions especially for (+, +) spells and (+, -) spells, and there is no evidence of survival difference found for (+, +) spells.

Table 1-28 Log-rank Test Results for Health

Health	Test Statistic	P-value
aggregate level	123.5***	<0.005
(+,+) spells	1.18	0.28
(+,-) spells	27.25***	<0.005
(-,-) spells	19.1***	<0.005
(-,+) spells	55.28***	<0.005

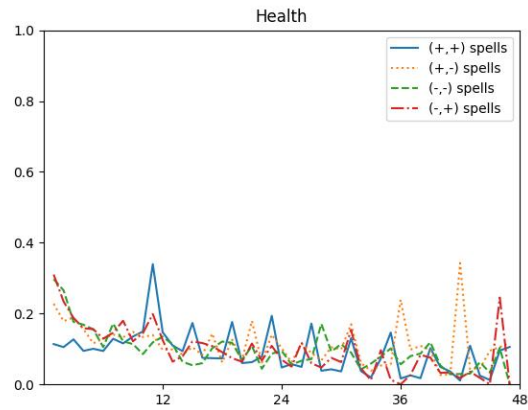
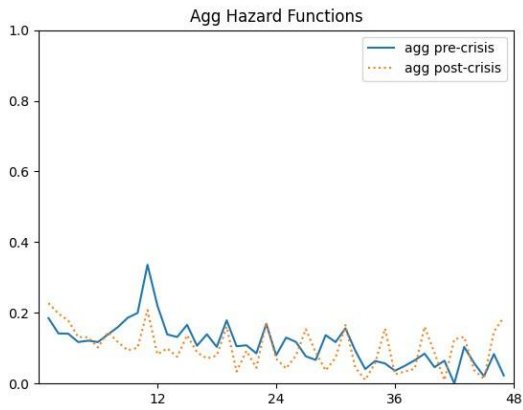
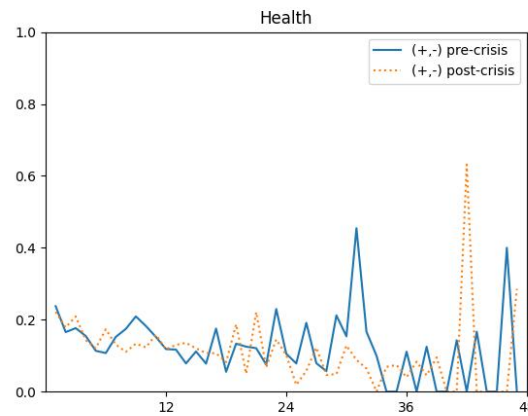
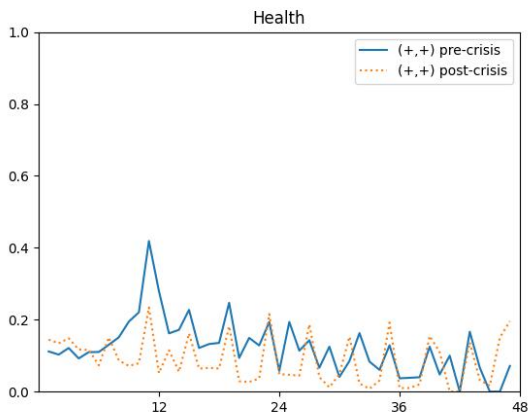


Figure 1-21 Hazard Functions for Health

Spells start with a price increase have higher hazard rates in the pre-crisis period. For spells start with a price cut, in the first 2 years the hazards rates in pre- and post-crisis periods are close. From 24 months onwards, prices in the post-crisis period seem to be a little more flexible.



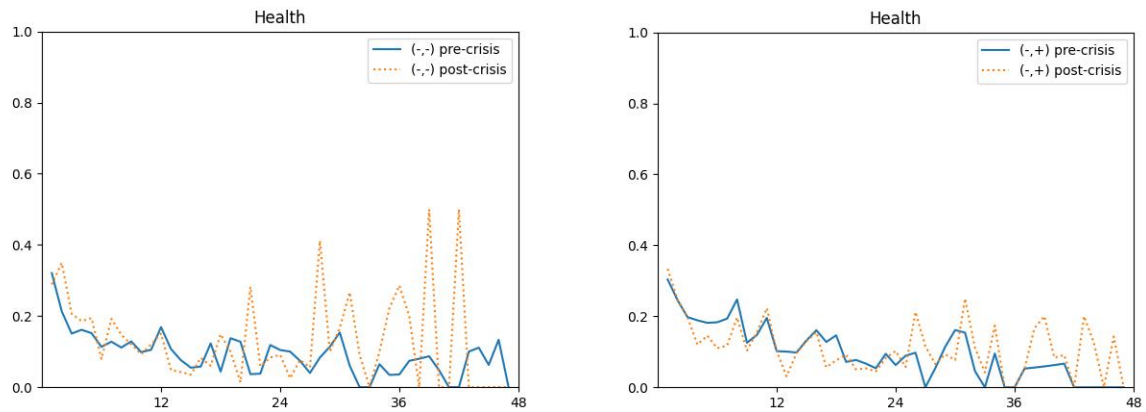


Figure 1-22 Hazard Functions for Health pre- and post-crisis

For the transport division, all four types of spells have similar movements, and all of them show a 4-month spike pattern.

Table 1-29 Log-rank Test Results for Transport

Transport	Test Statistic	P-value
aggregate level	15,143.92***	<0.005
(+,+) spells	6.51***	0.01
(+,-) spells	268.46***	<0.005
(-,-) spells	30.37***	<0.005
(-,+) spells	159.41***	<0.005

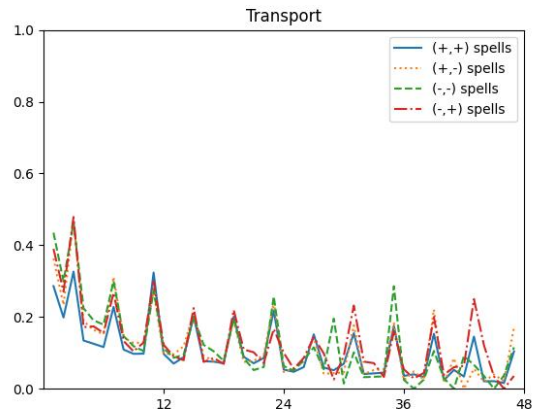
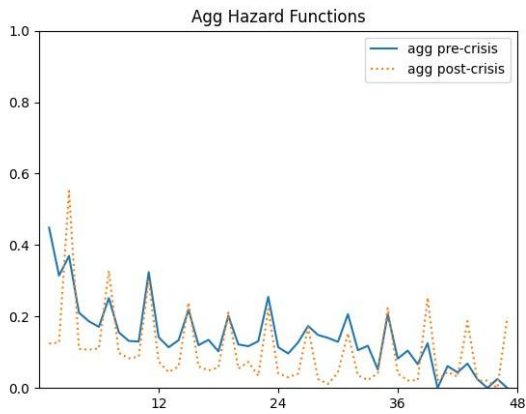
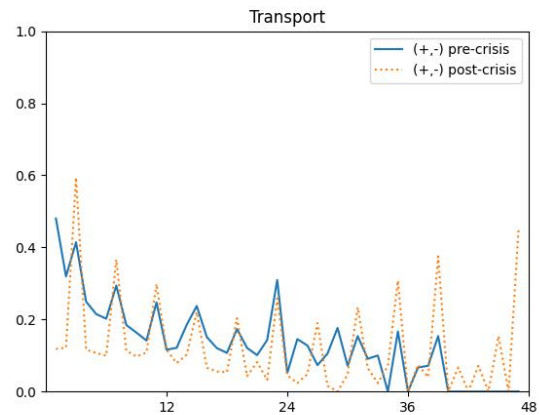
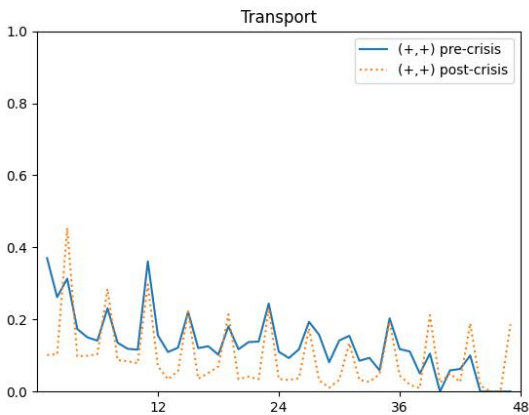


Figure 1-23 Hazard Functions for Transport

The differences between the pre- and post-crisis in the hazard functions are big, especially in the initial period. In period 1, hazard rates are much higher in the pre-crisis period for all these hazard functions. In general prices seem to be more flexible in the pre-crisis period as you can see that the blue solid line is above the orange dashed line for most of the time. But, at each 3-month spike point, hazard rates in the post-crisis period become higher than hazard rates in the pre-crisis period.



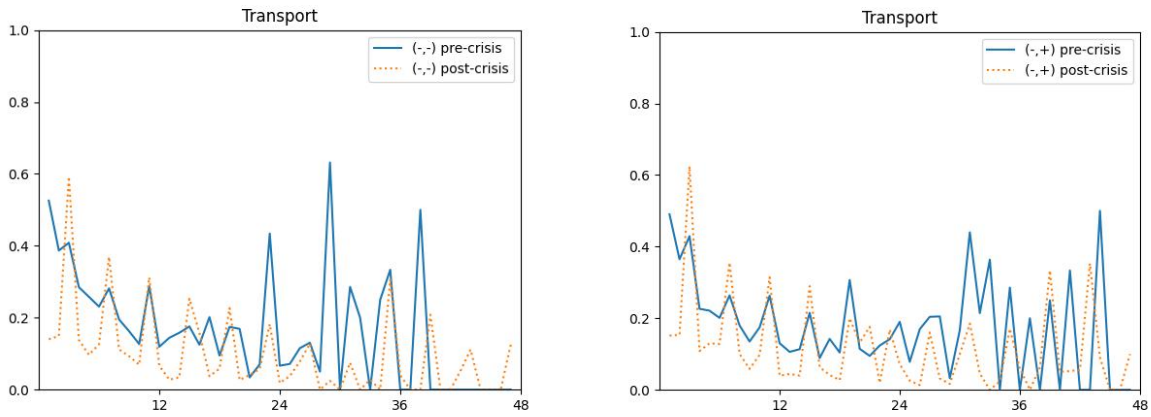


Figure 1-24 Hazard Functions for Transport pre- and post-crisis

For information and communication, prices in this division are very flexible. The hazard rates for most spells drop to 0 after about 36 periods except for (+, +) which last a little longer. Some large spikes in the hazard functions can be found for all types of price spells. There is no survival difference found for (-, -) spells.

Table 1-30 Log-rank Test Results for Information and Communication

Information and communication	Test Statistic	P-value
aggregate level	309.08***	<0.005
(+,+) spells	46.45***	<0.005
(+,-) spells	19.35***	<0.005
(-,-) spells	0.33	0.56
(-,+) spells	48.1***	<0.005

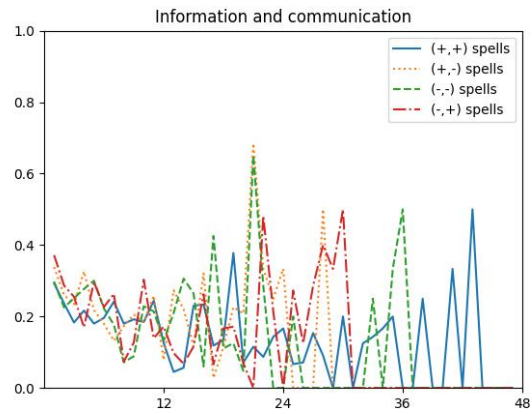
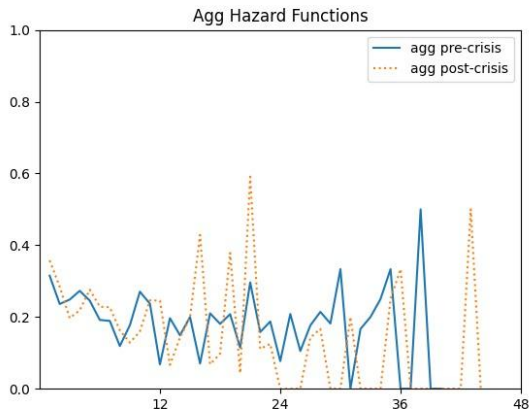
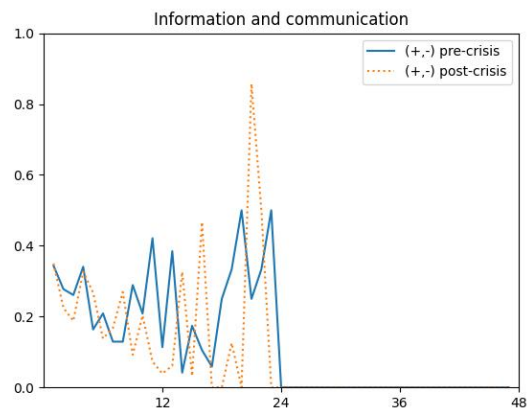
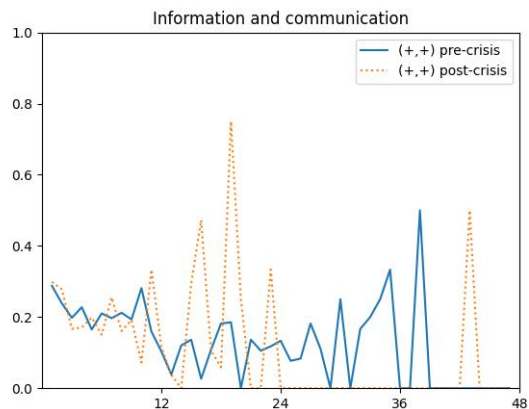


Figure 1-25 Hazard Functions for Information and Communication

For (+, +) spells, these prices are more flexible in the post-crisis period as we can see that only a few spells can survive past 24 periods, but there are some extreme values in the post-crisis sample. Comparable results can be found for (-, -) and (-, +) spells which have hazard rates drop to 0 after 24 periods. For (-, +) spells, they can last little longer up to about 32 periods. Overall, prices in the information and communication divisions are very flexible. Prices in the information and communication sector change very frequently, as you can see from the hazard function plots not a lot of price spells can survive longer than 24 months especially for (+,-), (-,-), and (-,+) spells.



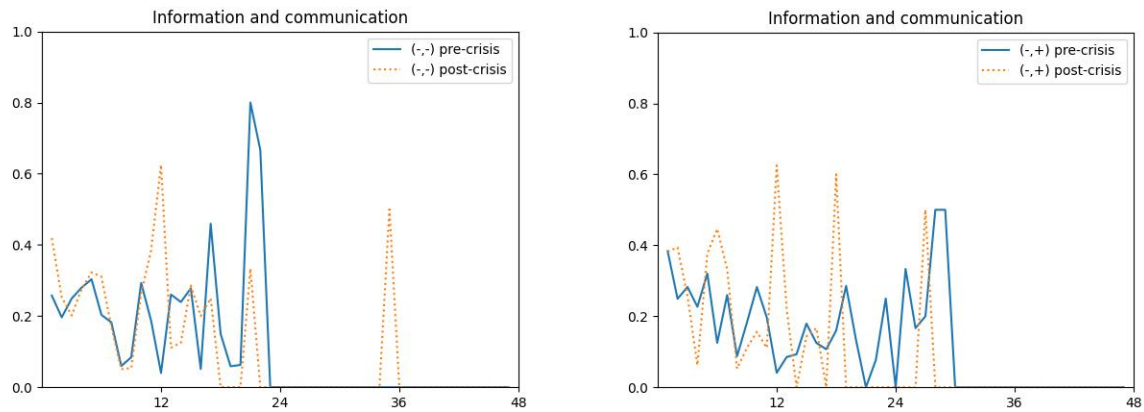


Figure 1-26 Hazard Functions for Information and Communication pre- and post-crisis

For recreation, sport and culture, there seems to be a 3-month spike pattern in the hazard functions. Like most of the hazard functions, the (+, +) hazard line is below the other three lines at the beginning few periods, then it slowly catches up with the other 12 months later. No evidence of survival difference found for (-, -) spells.

Table 1-31 Log-rank Test Results for Recreation, Sport, and Culture

Recreation, sport, and culture	Test Statistic	P-value
aggregate level	7,562.9***	<0.005
(+,+) spells	335.37***	<0.005
(+,-) spells	121.68***	<0.005
(-,-) spells	0.18	0.67
(-,+) spells	215.24***	<0.005

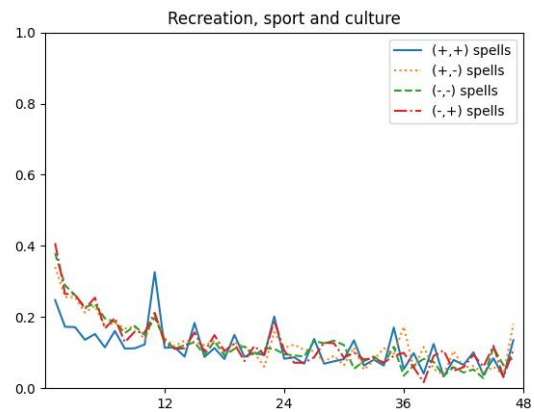
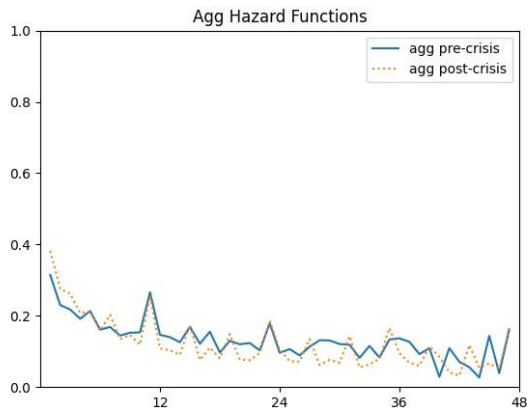
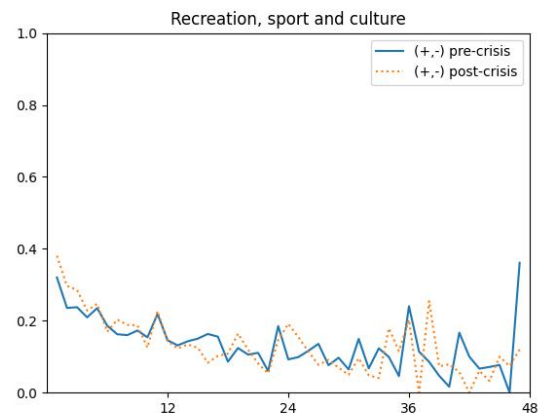
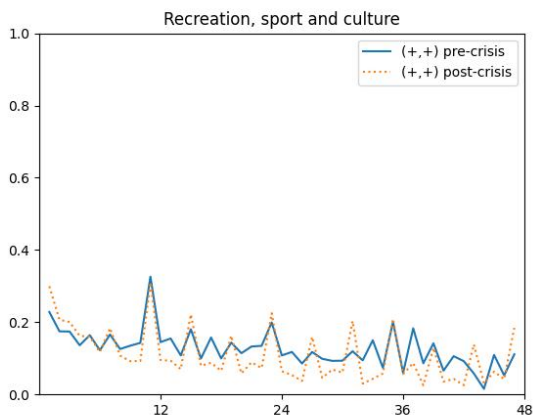


Figure 1-27 Hazard Functions for Recreation, Sport, and Culture

For (+, +) spells, their hazard rates are clearly higher in the pre-crisis period. The rest three types of spells, their hazard functions do not have any clear pattern, and the hazard rates in the pre- and post-crisis periods are similar to each other, but there is no clear evidence from the graph that one is significantly greater than the other.



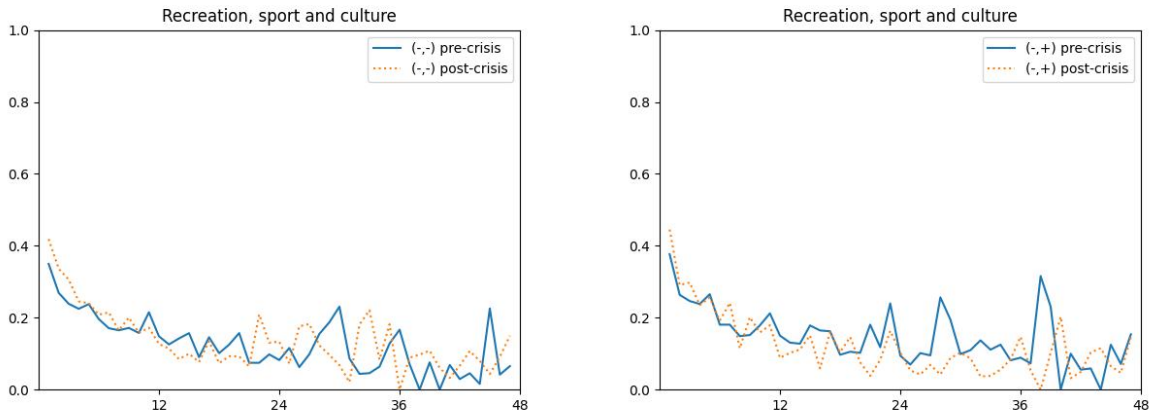


Figure 1-28 Hazard Functions for Recreation, Sport, and Culture pre- and post-crisis

For restaurants and accommodation services, (-, -) spells have exceedingly high hazard rates in the first few periods, as the from period 36 to 48. The hazard function for (+, +) spells shows the 12-month spike pattern.

Table 1-32 Log-rank Test Results for Restaurants and Accommodation Services

Restaurants and accommodation services	Test Statistic	P-value
aggregate level	1,846.58***	<0.005
(+,+) spells	19.39***	<0.005
(+,-) spells	11.08***	<0.005
(-,-) spells	40.75***	<0.005
(-,+) spells	28.32***	<0.005

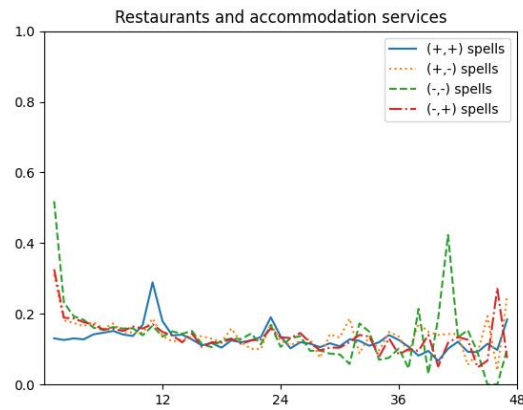
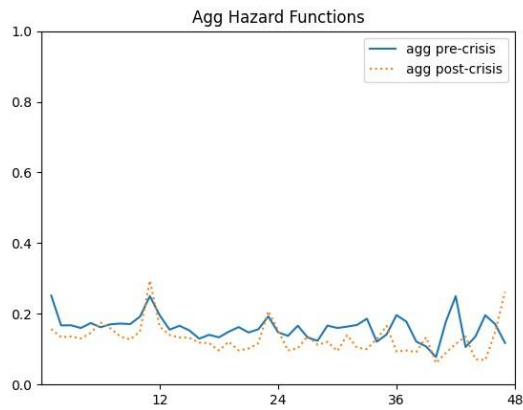
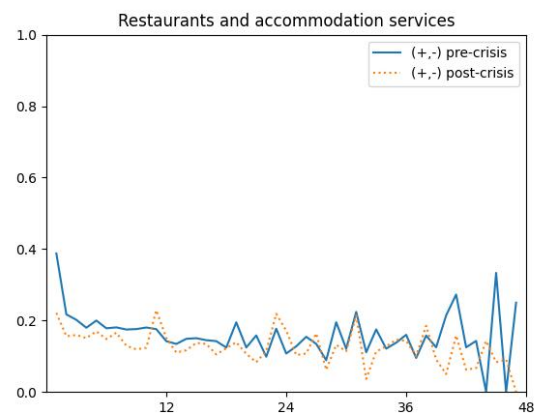
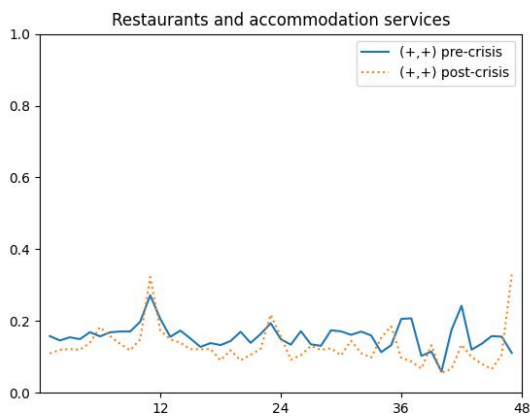


Figure 1-29 Hazard Functions for Restaurants and Accommodation Services

A similar pattern can be found here, that is prices are more flexible in the pre-crisis period. We can see big spikes towards period 48 from the hazard functions for (+, -), (-, -), and (-, +) spells.



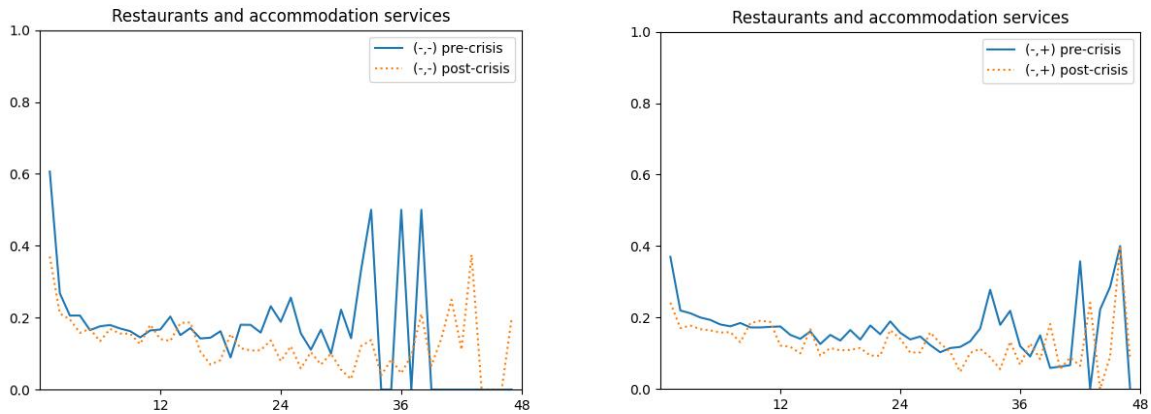


Figure 1-30 Restaurants and Accommodation Services pre- and post-crisis

Finally, for miscellaneous goods and services. We can see there is a spike in the hazard functions every 3 months. Like previous graphs, a lot of (+, +) spells can survive the first 6 months, then a lot of portions of them will die within 12 months as shown by the spike in period 12 on the graph. The log-rank test result for (-, -) spells is only significant at 5% and 10% significance levels.

Table 1-33 Log-rank Test Results for Miscellaneous Goods and Services

Miscellaneous Goods and Services	Test Statistic	P-value
aggregate level	3,073.61***	<0.005
(+,+) spells	194.76***	<0.005
(+,-) spells	186.43***	<0.005
(-,-) spells	3.75**	0.05
(-,+) spells	39.14***	<0.005

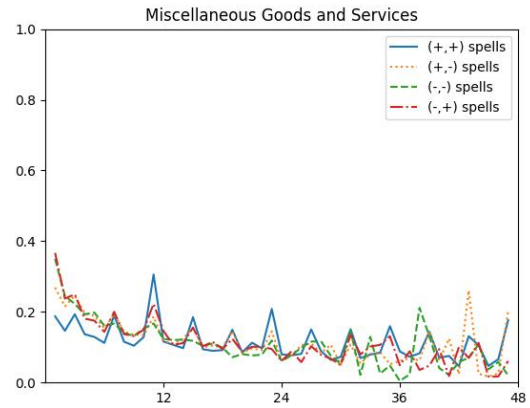
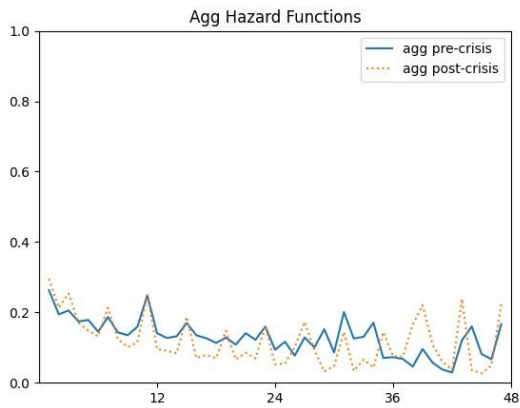
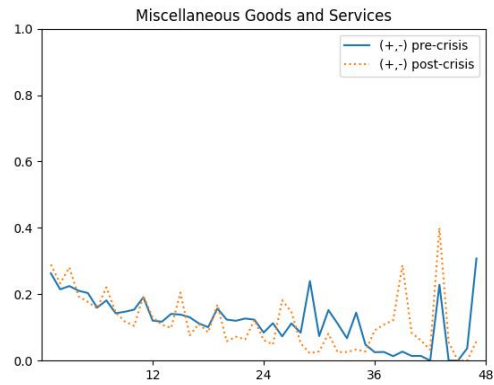
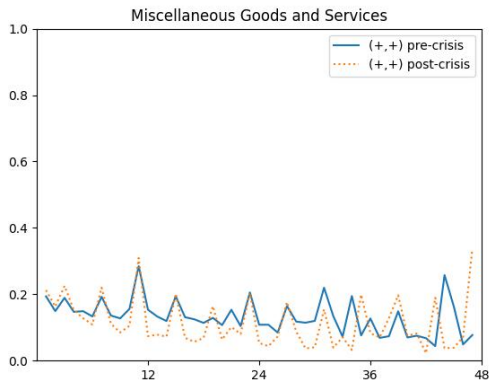


Figure 1-31 Hazard Functions for Miscellaneous Goods and Services

We can see the hazard rates in the pre-crisis period are higher, and we start to see some large spikes in the hazard functions from period 32 except for (+, +) spells.



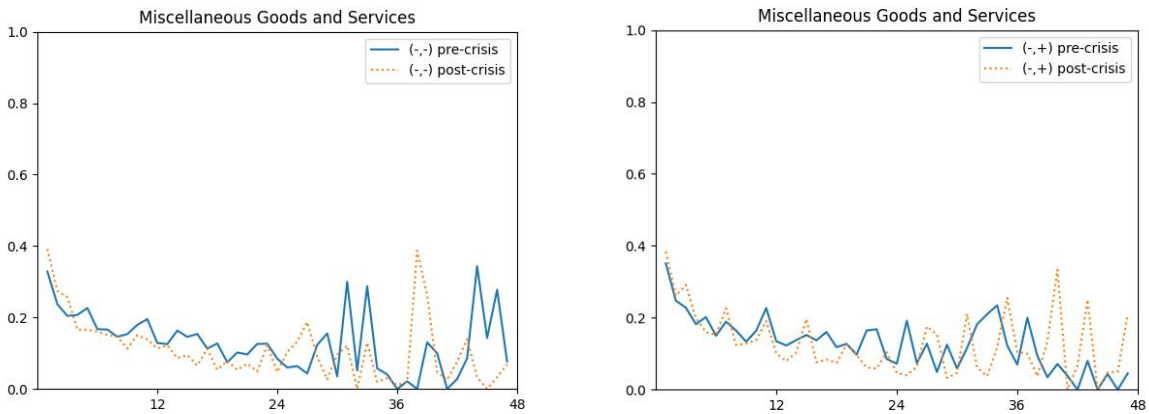
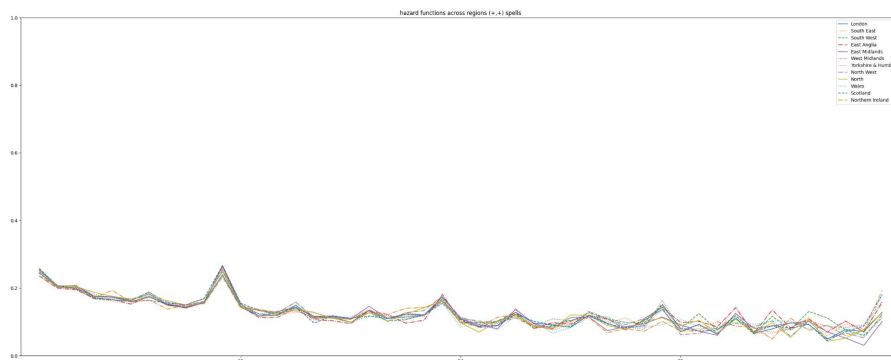


Figure 1-32 Hazard Functions for Miscellaneous Goods and Services pre- and post-crisis

1.5.3 Hazard function plots for each region

These hazard functions from different regions are similar except Northern Ireland occasionally being the outlier on the graph due to its geographic location. Again, we only observe this clear 12-month spike pattern in the hazard functions of (+, +) spells. Another interesting finding is that after excluding sales from the data, the hazard rates for Scotland become the biggest as shown in Appendix 6. A lot of sales are temporary; thus, they have short price spells. Prices will normally become more rigid if we exclude sales. These hazard rates indeed become smaller after removing sales, but the decreases in the hazard rates for Scotland are minor compared to other regions.



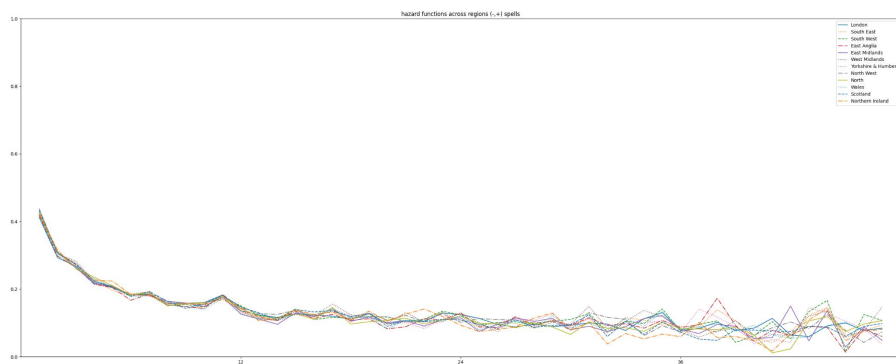
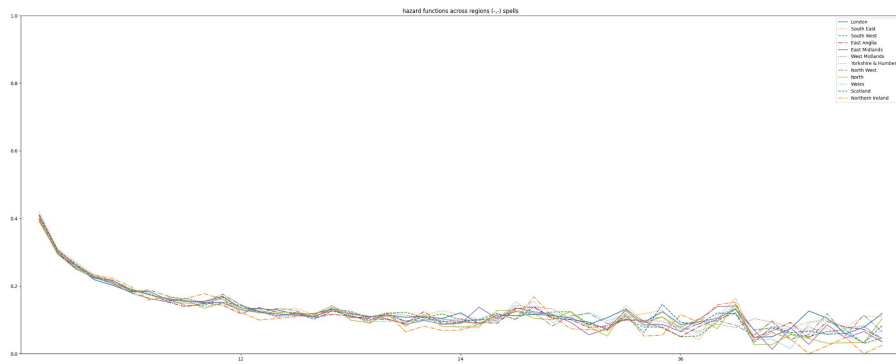
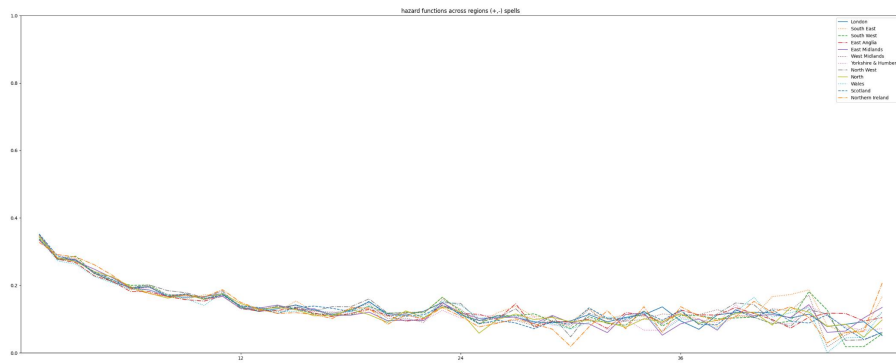


Figure 1-33 Hazard Functions Across 12 UK regions

Next, we will compare these hazard functions within each region like we just did for divisions. These hazard functions look like each other across these regions. Prices are more flexible in the pre-crisis period. For hazard functions of spells that start with a price increase, i.e.

(+, +) and (+, -) spells, we can see that the hazard rates in the first 3-4 periods are higher in post-crisis period for Northern Ireland, and this is quite the opposite from what we see in the hazard functions from the rest of regions. You can find hazard function plots for the other regions in Appendix 6 as they all show a similar pattern. For the log-rank test results, most of them show significant survival difference at 1% significance level, but London, East Midlands, Yorkshire & Humber, North West, and Northern Ireland are some exceptions. For these regions, survival differences for (+, +) and (-, -) spells are not so significant compared to the other regions. For London, and East Midlands, there is no significant survival difference found at the aggregate level.

Table 1-34 Log-rank Test Results for London

London	Test Statistic	P- value
aggregate level	1.24	0.27
(+,+) spells	1.4	0.24
(+,-) spells	52.5***	<0.005
(-,-) spells	0.04	0.84
(-,+) spells	6.65***	0.01

Table 1-35 Log-rank Test Results for East Midlands

East Midlands	Test Statistic	P- value
aggregate level	1.12	0.29
(+,+) spells	14.7***	<0.005
(+,-) spells	165.71***	<0.005
(-,-) spells	11.86***	<0.005
(-,+) spells	69.69***	<0.005

Table 1-36 Log-rank Test Results for Yorkshire & Humber

Yorkshire & Humber	Test Statistic	P- value
aggregate level	11.78***	<0.005

(+,+) spells	0.4	0.53
(+,-) spells	99.65***	<0.005
(-,-) spells	3.4*	0.07
(-,+) spells	10.63***	<0.005

Table 1-37 Log-rank Test Results for North West

North West	Test Statistic	P-value
aggregate level	146.62***	<0.005
(+,+) spells	0.19	0.67
(+,-) spells	131.83***	<0.005
(-,-) spells	3.72**	0.05
(-,+) spells	15.31***	<0.005

Table 1-38 Log-rank Test Results for Northern Ireland

Northern Ireland	Test Statistic	P-value
aggregate level	1,139.43***	<0.005
(+,+) spells	2.75*	0.1
(+,-) spells	113.34***	<0.005
(-,-) spells	62.76***	<0.005
(-,+) spells	115.56***	<0.005

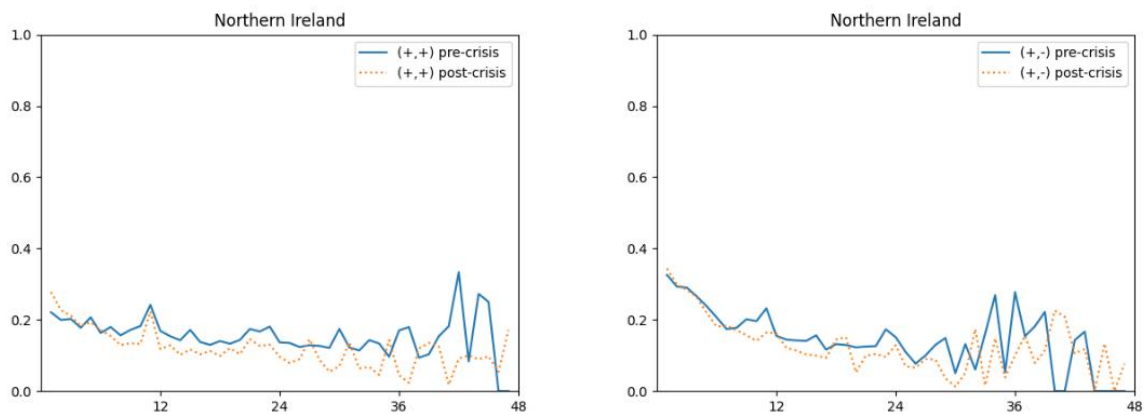


Figure 1-34 Hazard Functions for Northern Ireland pre- and post-crisis

1.5.4 Hazard function plots for multiple and independent shops

We then compare hazard functions between multiple and independent shops. The hazard functions from independent shops have more spikes as you can see from the graphs. The differences between multiple and independent shops are the biggest for (+, +) spells, for the other three types of spells the differences between their hazard functions are small. Moreover, the 12-month spike pattern is the most evident in the hazard function of (+, +) spells from independent shops.

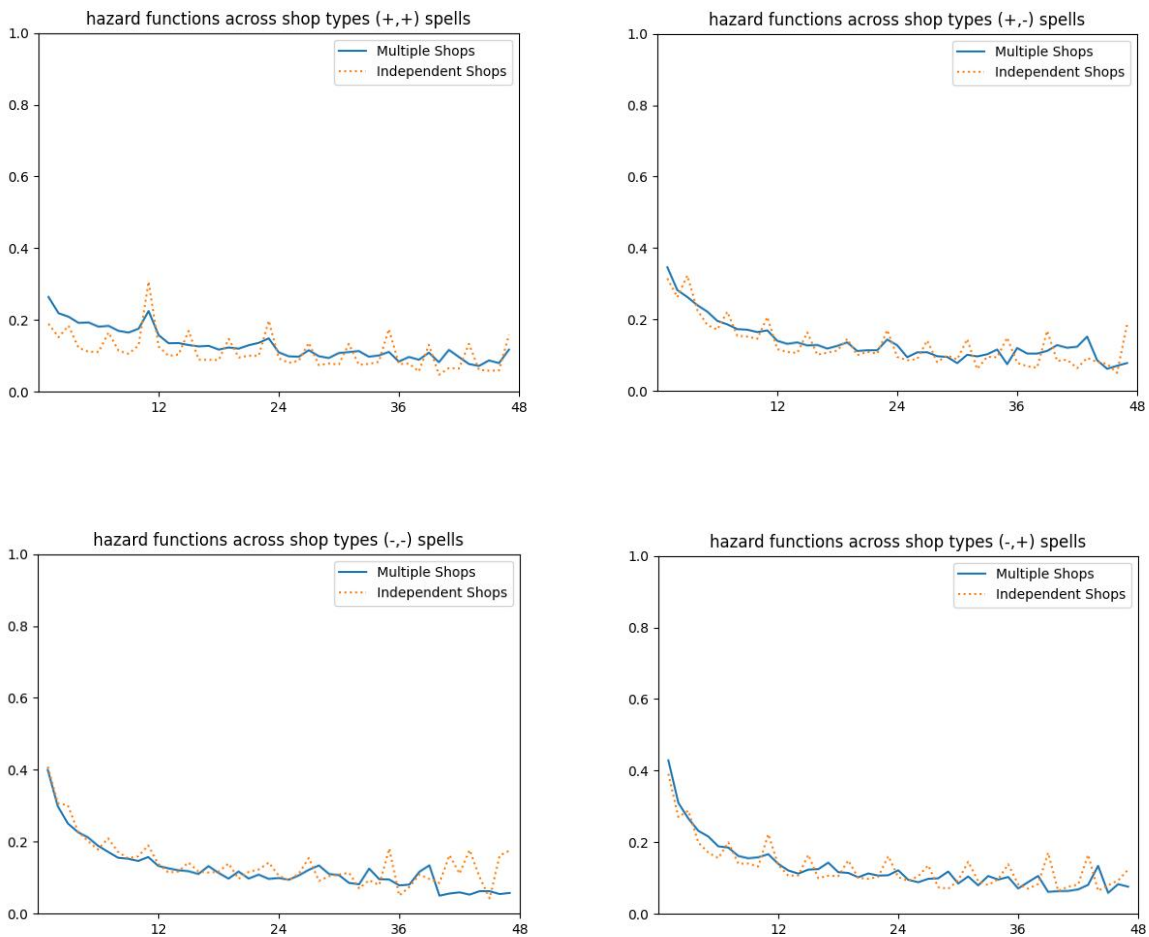


Figure 1-35 Hazard Functions for Independent and Multiple Shops

For multiple shops, a clear 12-month spike pattern can be found in the first two years in the hazard function of (+, +) spells as indicated by the blue solid line in the following graph.

Table 1-39 Log-rank Test Results for Multiple Shops

Multiple	Test Statistic	P-value
aggregate level	47.69***	<0.005
(+,+) spells	81.05***	<0.005
(+,-) spells	1,428.55***	<0.005
(-,-) spells	147.07***	<0.005
(-,+) spells	504.83***	<0.005

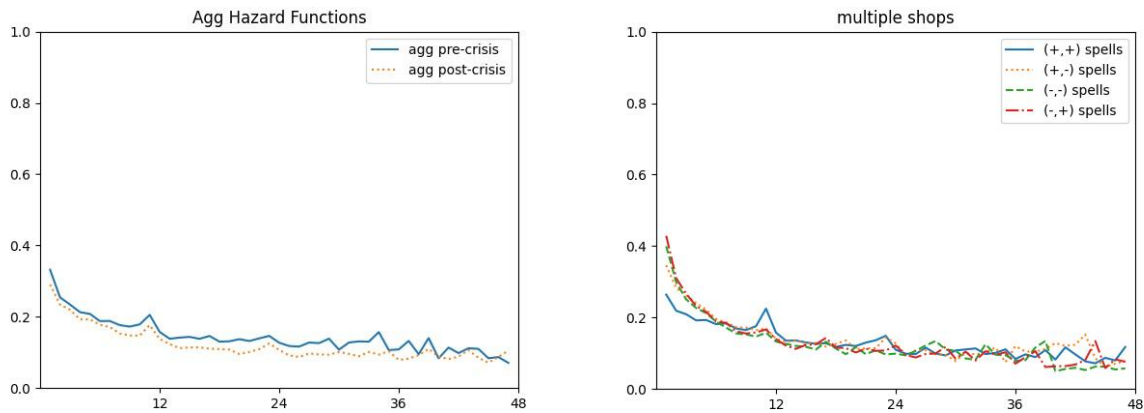


Figure 1-36 Hazard Functions for Multiple Shops

Prices are more flexible in the pre-crisis period as the hazard rates are higher, and the hazard function in the pre-crisis period appears to be spikier. Spells that start with a price cut have higher hazard rates in the beginning few periods than spells that start with a price increase.

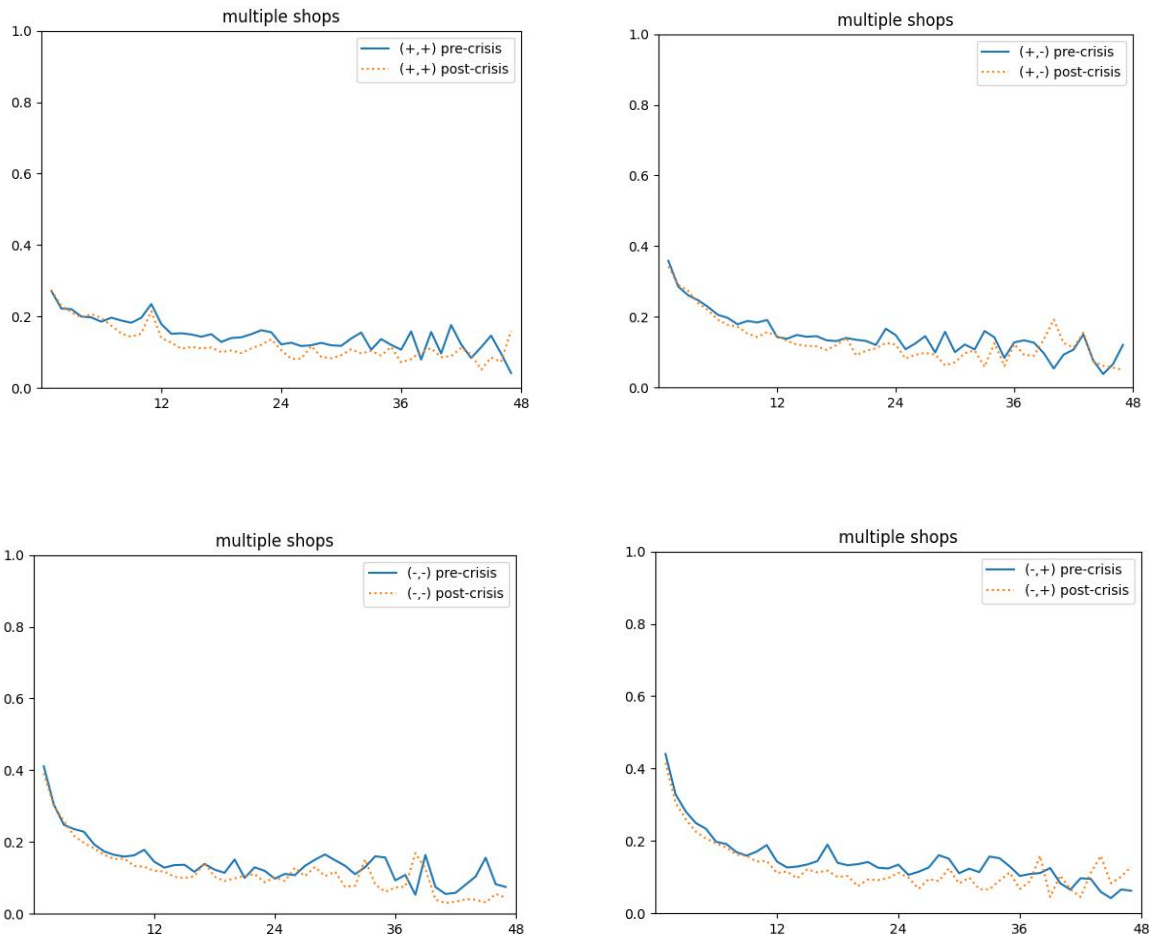


Figure 1-37 Hazard Functions for Multiple Shops pre- and post-crisis

For independent shops, we can see more spikes from these hazard functions than multiple shops. There is a 3-month spike pattern in the hazard functions, and it is a bit like the pattern we observe in the hazard functions from the transport division.

Table 1-40 Log-rank Test Results for Independent Shops

Independent aggregate level	Test Statistic	P-value
	1,059.14***	<0.005
(+,+) spells	205.47***	<0.005
(+,-) spells	400.59***	<0.005
(-,-) spells	64.54***	<0.005
(-,+) spells	231.37***	<0.005

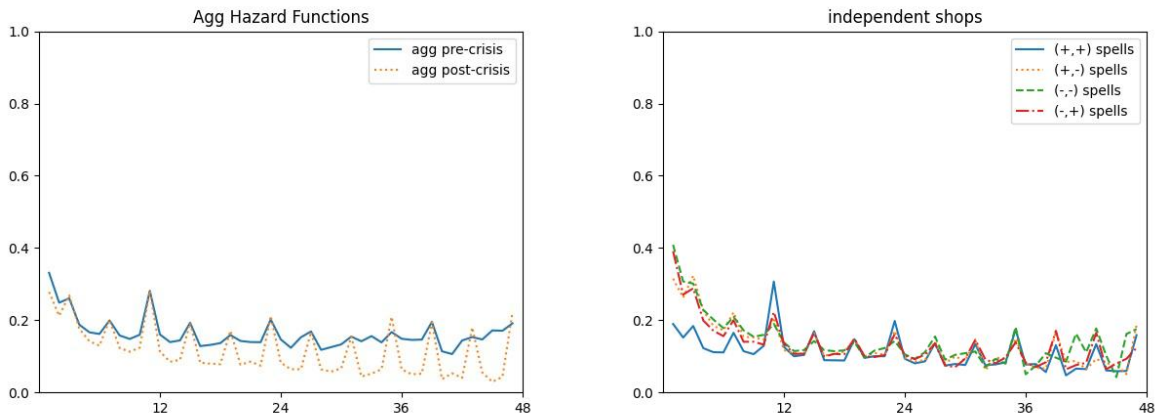
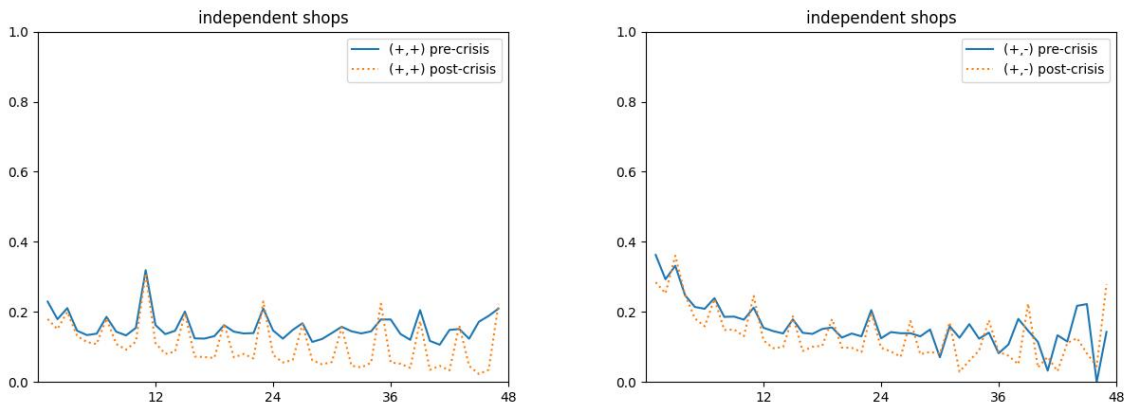


Figure 1-38 Hazard Functions for Independent Shops

Like multiple shops, prices are more rigid in the post-crisis period, and one thing that is new we see here is the 3-month spike pattern in the hazard functions. For the hazard function of (-, -) spells in the pre-crisis period, the hazard function is obviously flatter than the other hazard functions. These survival differences are significant according to the log-rank test results.



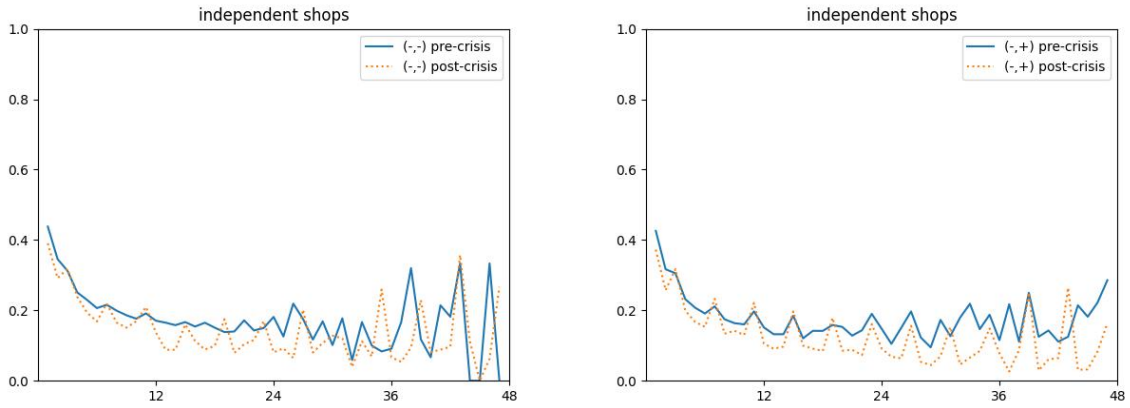
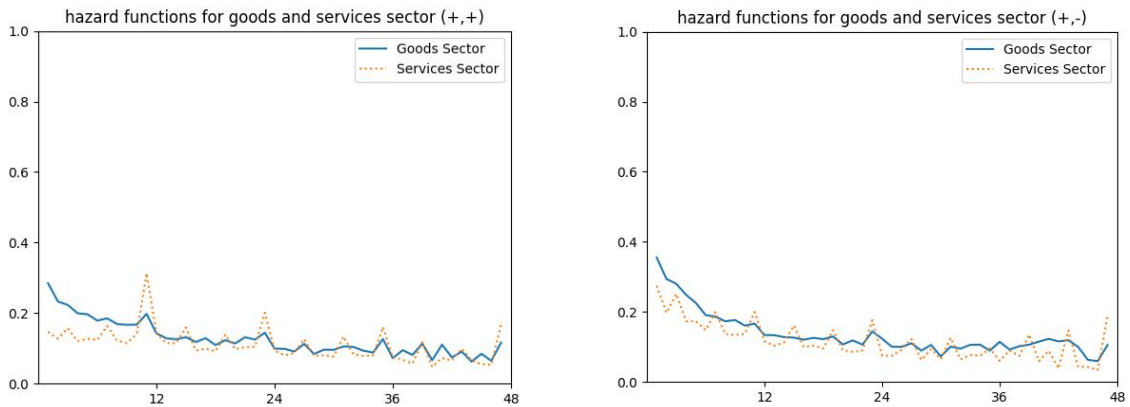


Figure 1-39 Hazard Functions for Independent Shops pre- and post-crisis

1.5.5 Hazard function plots for goods and services sector

Finally, we compare the hazard functions between goods and services sector in the following section. Hazard rates are higher in the goods sector, especially for these short spells that last less than a year. There are many spikes in the hazard functions in the services sector as you can see from the dashed orange line on the graphs.



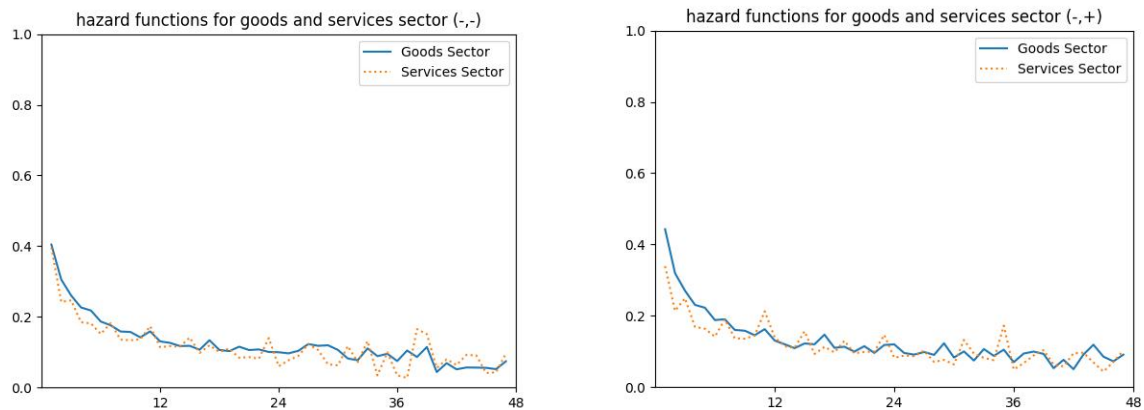


Figure 1-40 Hazard Functions for Goods and Services Sectors

For the goods sector, hazard function for (+, +) spells start lower than the other hazard functions similar to what we find in most of these hazard function plots. You can see the 12-month spike pattern from the hazard function for (+, +) spells. After the first 7 or 8 months, these hazard rates become similar. The log-rank test results are showing that there is no significant survival difference at the aggregate level, and this could be the result of the effects from each type of price spells cancelling each other.

Table 1-41 Log-rank Test Results for Goods Sector

Goods Sector	Test Statistic	P-value
aggregate level	2.51	0.11
(+,+) spells	193.3***	<0.005
(+,-) spells	1,355.37***	<0.005
(-,-) spells	173.51***	<0.005
(-,+) spells	630.62***	<0.005

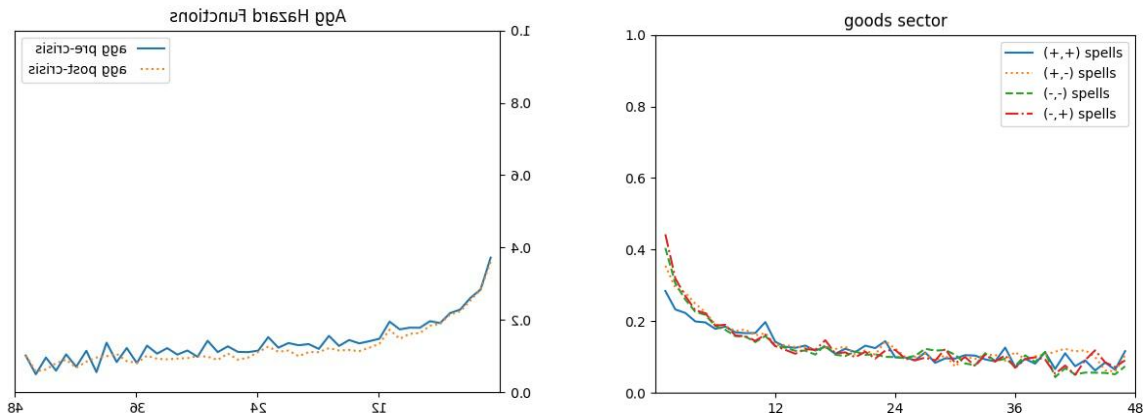
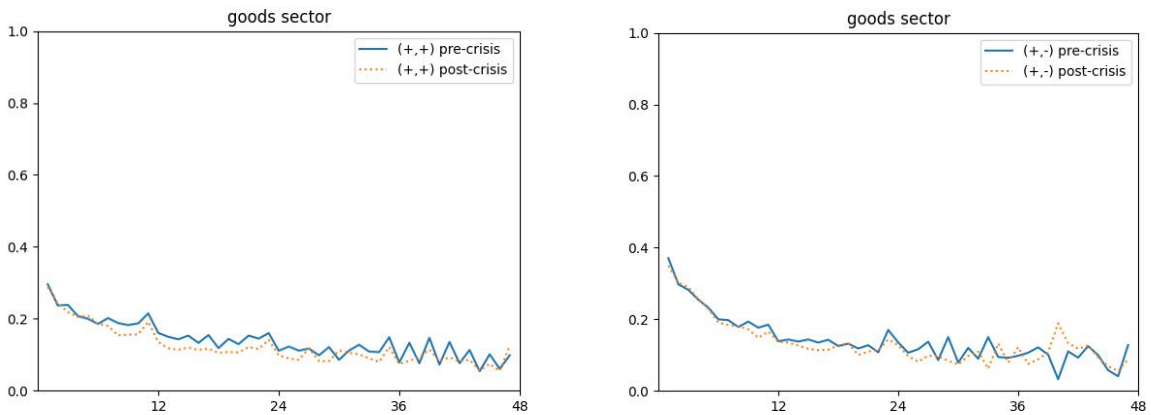


Figure 1-41 Hazard Functions for Goods Sector

There are not many differences in the hazard rates between pre- and post-crisis period in the first 12 months, but hazard rates become a little bit higher in the pre-crisis period after that. All four types of spells show a similar pattern except you can see some peak points from the hazard functions for (+, +) every 12 months. There are more spikes after period 24.



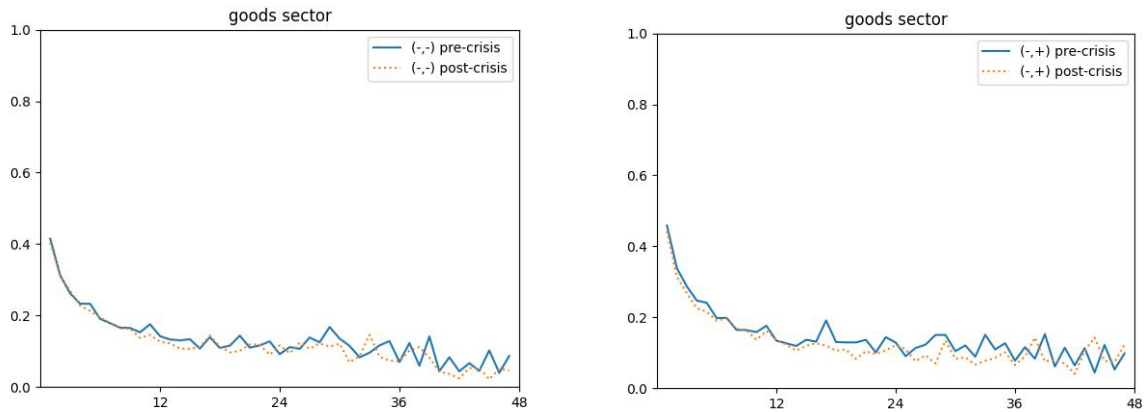


Figure 1-42 Hazard Functions for Goods Sector pre- and post-crisis

For the services sector, we can see more spikes from these hazard functions. The spikes for (+, +) are bigger than the hazard functions from the other three types of spells. The hazard function for (-, -) spells shows the highest hazard rates in the first few periods, and later they become relatively smaller than the rest starting from period 24. At aggregate level, the log-rank test result is only significant at 10% significance level, and (-, -) spells don't seem to be affected by the great financial crisis at all.

Table 1-42 Log-rank Test Results for Services Sector

Services Sector	Test Statistic	P-value
aggregate level	2.86*	0.09
(+,+) spells	48.24***	<0.005
(+,-) spells	332.04***	<0.005
(-,-) spells	1.48	0.22
(-,+) spells	98.35***	<0.005

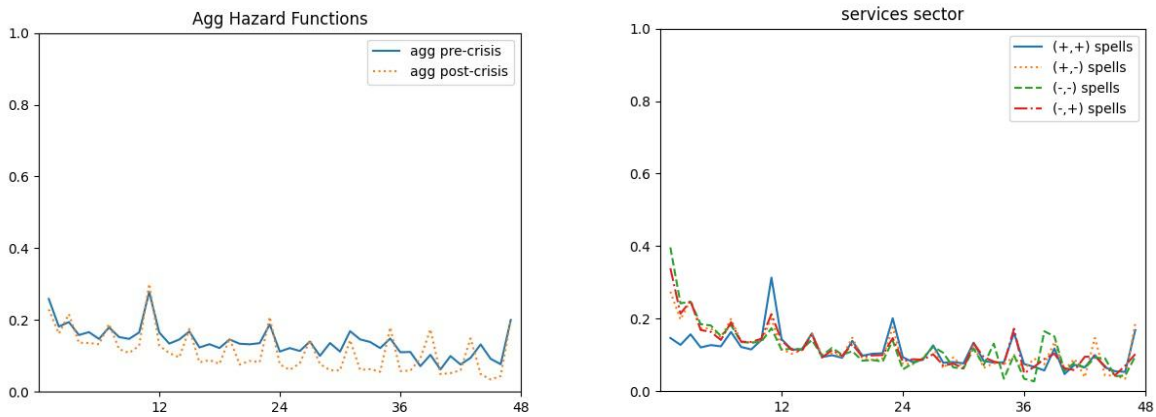
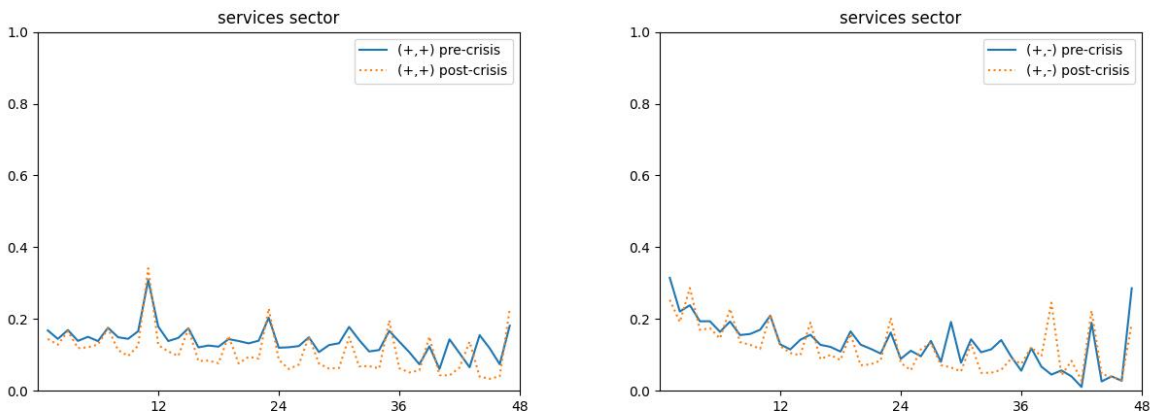


Figure 1-43 Hazard Functions for Services Sector

We can see hazard rates are higher in the pre-crisis period except for those peak points. Hazard rates in the first few periods are pretty small for (+, +) spells as we can see they are even smaller than 0.2 while the others are all around 0.4. These hazard rates are even smaller than the ones we see in the goods sector.



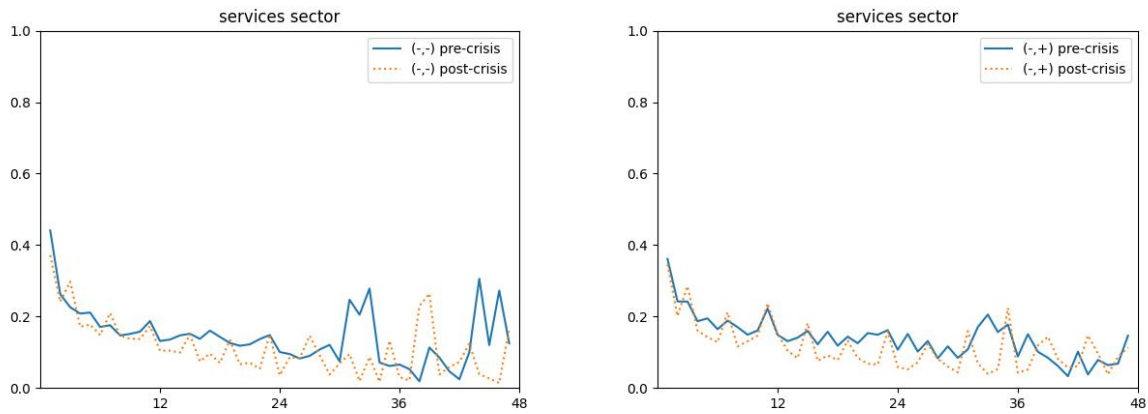


Figure 1-44 Hazard Functions for Services Sector pre- and post-crisis

1.6 Weights

Aggregate Survival Probabilities:

We have four types of price spells, and we can denote them as $I(++)$, $I(+)$, $I(--)$, and $I(-)$. Let $SS(i)$ be the subset of spells that lasts more than i periods and let $\#SS(i)$ be the number of spells in that subset. $\#SS(0) = \#I$ denote for total number of spells. So, for each subset we have $\#SS(++ , 0) = \#I(++)$, and so on. The survival probabilities can be written as:

$$S(i) = \frac{\#SS(i)}{\#SS(0)} = \frac{\#SS(i)}{\#I} \quad (1.16)$$

The subset $I(++)$ that lasts longer than i periods is:

$$SS(++ , i) = SS(i) \cup I(++) \quad (1.17)$$

The survival function for $I(++)$ is:

$$S(++ , i) = \frac{\#SS(++ , i)}{\#SS(++ , 0)} = \frac{\#SS(++ , i)}{\#I(++)} \quad (1.18)$$

The survival function of the total spells is just the sum of the four:

$$S(i) = \frac{\#SS(++ , i) + \#SS(+ - , i) + \#SS(- - , i) + \#SS(- + , i)}{\#I} \quad (1.19)$$

Substituting eq (1.19) into eq (1.20) we can get:

$$S(i) = \frac{\#SS(++ , i)\#I(++)}{\#I\#I(++)} + \frac{\#SS(+ - , i)\#I(+ -)}{\#I\#I(+ -)} + \frac{\#SS(- - , i)\#I(- -)}{\#I\#I(- -)} + \frac{\#SS(- + , i)\#I(- +)}{\#I\#I(- +)} \quad (1.20)$$

$$S(i) = S(++ , i) \frac{\#I(++)}{\#I} + S(+ - , i) \frac{\#I(+ -)}{\#I} + S(- - , i) \frac{\#I(- -)}{\#I} + S(- + , i) \frac{\#I(- +)}{\#I} \quad (1.21)$$

We can see that each survival function is weighted by the proportion of that type of spell, but there are no COICOP weights in this method.

Adding COICOP weights:

Spells can be partitioned into subsets according to COICOP divisions: $C(k)$, where $k = 1, 2, \dots, 12$. For each subset we have $SSC(k, i) = C(k) \cap SS(i)$. The survival probability for division k is then given by:

$$SC(k, i) = \frac{\#SSC(k, i)}{\#C(k)} \quad (1.22)$$

To get the aggregate survival function we just need to multiply each subset survival function by the COICOP weights $w(k)$:

$$S(i) = \sum_{k=1}^{12} SC(k, i)w(k) \quad (1.23)$$

We could also divide each division into subclasses, but the problem of that is we would have very little data under each subclass, so using COICOP division weights is the most appropriate way here.

Combining four types of spells:

Finally, we add the information of different types of spells:

$$SSIC(++ , k, i) = I(++) \cap SSC(k, i) \quad (1.24)$$

$$SIC(++ , k, i) = \frac{\#SSIC(++ , k, i)}{\#[C(k) \cap I(+, +)]} \quad (1.25)$$

Eq (1.25) tells us within division k , the i period survival probability of the type of spells that both start and exit with a price increase is the ratio between the number of these spells that last at least I periods and the total number of $(++)$ spells in division k . We can write down the weights for each division of each type of spell:

$$w_k(\tau) = \frac{\#(C(k) \cap I(\tau))}{\#C(k)} \quad (1.26)$$

$$SC(k, i) = \sum_{\tau=1}^4 SIC(\tau, k, i) w_k(\tau) \quad (1.27)$$

This suggests the natural weighting for the aggregate types:

$$SS(\tau, i) = \sum_{k=1}^{12} SIC(\tau, k, i) w(k) \quad (1.28)$$

The ONS publishes the COICOP division weights each year, weights from 1996, 2008, and 2018 are chosen, then the average of these three are used in this paper. The weights are adjusted for not having education services in our sample. From the following table we can see that people's consumption behavior has been changing. From 1996 to 2018, the weights on food and drinks have been dropping each year. The energy bills that people have to pay are more than

doubled in 2018 compared with 1996's. The top four expenditures (more than 10%) are energy, recreation, transport, and food.

Table 1-43 COICOP Weights

Adjusted	1996	2008	2018	average	in %
Food and non-alcoholic beverages	156	109	82	115.67	0.12
Alcoholic beverages, tobacco, and narcotics	70	42	33	48.33	0.05
Clothing and footwear	67	63	59	63.00	0.06
Housing, water, electricity, gas, and other fuels	134	115	300	183.00	0.19
Furnishings, household equipment maintenance	90	67	50	69.00	0.07
Health	7	22	21	16.67	0.02
Transport	154	152	124	143.33	0.15
Information and communication	21	23	20	21.33	0.02
Recreation, sport, and culture	131	152	120	134.33	0.14
Education services	0	0	0	0.00	0.00
Restaurants and accommodation services	111	137	97	115.00	0.12
Miscellaneous Goods and Services	48	99	76	74.33	0.08
total	989	981	982	984	1

The idea of applying weights to our data is related to consumers' consumption basket. People spend more money on some products compared to the other products. For example, people spend more money on pay their electricity bills than ice-creams, so a price increase on electricity bills will generate a greater effect on the overall price increases in the economy compared to a price increase on ice-creams. Similarly, for multiple and independent shops, when a chained supermarket like Tesco decides to raise prices, it will have bigger impacts on the overall price level compared to price increases in a local convenience store. So, it is reasonable to weight the survival probabilities by the number of stores in a multiple. But, there is one problem with this shop type weighting system, and that's because the prices for one product within one multiple shop could be different. For some multiple shops, they price the same products the same in every store while others multiple shops might have different prices for the

same products. According to “Consumer Prices Indices Technical Manual, 2019”, for the former type of multiple shops, these price quotes are centrally collected by the ONS by making phone calls or visiting their websites, and for the later type of multiple shops, the ONS will send agents to actually visit and record the local price quotes in each store. So, for a multiple shop with 10 stores that put different prices on the same products in each store, it can be treated as 10 different independent shops because there will be 10 different price trajectories collected in each store for the same product. My point is that if we weighted these price spells by the number of stores for that multiple shop, we would have the double counting problem. The dataset we have doesn’t provide information on which price quotes are centrally collected and which ones are locally collected. The best way to address this issue is to weight the spells by the shop weight to reflect the market shares.

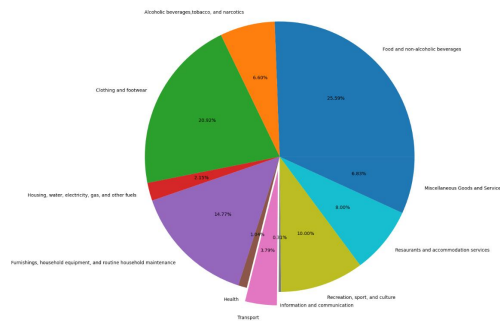


Figure 1-45 Average Share of Expenditure in Each COICOP Division

The unweighted hazard rates are bigger than the weighted hazard rates except at the peak points, and this indicates that weighted price spells are more rigid than unweighted ones. The log-rank test result suggests that there is significant survival difference between the weighted and unweighted price spells.

Table 1-45 Log-rank Test Result for Weighted and Unweighted Hazard Functions

	Test Statistic	P- value
weighted VS unweighted	10.95***	<0.005

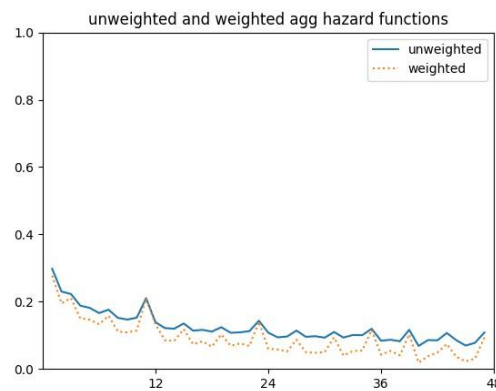


Figure 1-46 Unweighted and Weighted Aggregate Hazard Functions

1.7 Basic Statistics for the Hazard Functions

To get a better idea of the distribution of the hazard functions, next we examine the mean, median, standard deviation, and skewness. The mean is easy to find, and it is given by multiplying the time t by the density $f(t)$ and integrating. The easiest way to find the median is to look at the cumulative survival functions, then look at which t the survival function returns 50% or 0.5. The variance can measure how spread our data is.

Table 1-45 and 1-46 contains some basic statistics for the four types of price spells weighted by the COICOP and shop weights. The average duration for the age distribution is much smaller than Duration Across Firms (DAF). For both age and DAF, the average durations

for each type of price spells are longer than the unweighted ones. The average duration of price spells is more than 10 months in the UK. The variance for the age distribution is pretty small.

Table 1-45 Basic Stats of Age Distribution

Age	(+,+)		(+,-)		(-,-)		(-,+)	
	no	yes	no	yes	no	yes	no	yes
weights								
mean	5.38	5.85	4.05	4.92	3.86	4.75	3.72	4.62
median	3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00
variance	0.0015	0.0015	0.0021	0.0022	0.0021	0.0023	0.0022	0.0023
skewness	61.03	60.52	44.45	25.84	40.28	43.82	36.32	41.41
std.	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05

Table 1-46 Basic Stats of DAF

DAF	(+,+)		(+,-)		(-,-)		(-,+)	
	no	yes	no	yes	no	yes	no	Yes
weights								
mean	12.00	12.95	10.22	10.95	10.76	10.81	10.47	11.24
median	9.00	8.00	7.00	5.00	7.00	5.00	7.00	5.00
variance	0.1730	0.5486	0.5815	2.3481	0.7433	3.4781	0.8979	3.4811
skewness	7.21	4.89	4.22	2.77	4.36	2.76	3.66	2.78
std.	0.42	0.73	0.76	1.54	0.86	1.81	0.95	1.79

1.7.1 Basic Statistics Across COICOP Divisions

We use unweighted spells to compare DAF among four types of spells. Let's first examine the results across each COICOP division. Price spells in the health division have the longest spells while spells in the information and communication division are the shortest on average. Normally, (+, +) spells are the longest ones among the four types, but there are two exceptions here. One is alcoholic beverages, tobacco, and narcotics, for these products the longest price spells are (-, -) spells. The other one is the health division, and all four types of spells have similar mean durations with (-, -) spells a little bit longer than the rest.

Table 1-47 Mean DAF for 11 COICOP Divisions

DAF (mean)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	12.12	10.60	11.30	11.31
Alcoholic beverages, tobacco, and narcotics	7.16	7.18	8.80	6.97
Clothing and footwear	11.03	8.42	9.83	9.14
Housing, water, electricity, gas, and other fuels	14.49	14.28	13.47	11.90
Furnishings, household equipment maintenance	12.14	10.46	11.12	10.13
Health	16.04	15.22	16.22	15.34
Transport	13.28	9.89	8.93	9.51
Information and communication	9.90	8.06	8.32	8.67
Recreation, sport, and culture	13.77	10.87	10.61	10.53
Restaurants and accommodation services	12.83	12.05	10.96	11.98
Miscellaneous Goods and Services	13.84	12.78	13.22	12.41

Most of these spells are longer in the post-crisis period, and we can see some very big increases in the health and transport divisions. There are also drops in the average durations in the post-crisis period, like (-, -) spells in the health division, as well as (+, -) and (-, -) spells in the recreation, sport, and culture division.

Table 1-48 Mean DAF for 11 COICOP Divisions pre- and post-crisis

DAF (mean)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	10.48	9.34	10.41	9.58
post-crisis	12.98	11.69	12.73	12.84
Alcoholic beverages, tobacco, and narcotics(pre)	6.54	6.77	9.13	5.83
post-crisis	7.53	7.46	8.84	8.15
Clothing and footwear(pre)	9.90	7.82	8.16	7.61
post-crisis	11.48	8.20	10.19	9.71
Housing, water, electricity, gas, and other fuels(pre)	12.39	11.05	12.35	9.82
post-crisis	14.04	16.29	14.77	12.36
Furnishings, household equipment maintenance(pre)	10.61	9.37	9.53	8.77
post-crisis	12.85	11.07	11.22	11.05
Health(pre)	11.34	13.11	17.23	12.89
post-crisis	19.09	14.61	13.39	14.64
Transport(pre)	9.79	7.33	6.15	7.00

post-crisis	15.23	10.92	11.94	10.84
Information and communication(pre)	10.77	7.57	8.43	8.95
post-crisis	9.50	9.06	7.77	7.02
Recreation, sport, and culture(pre)	12.15	10.60	10.38	9.39
post-crisis	13.97	9.81	9.39	10.41
Restaurants and accommodation services(pre)	10.91	10.21	8.57	9.93
post-crisis	12.82	12.90	12.35	12.77
Miscellaneous Goods and Services(pre)	12.05	11.89	11.33	10.76
post-crisis	14.58	12.71	13.94	12.26

Most of the spells have a median around 10 for (+, +) spells and 8 for the other three types. The median for alcoholic beverages, tobacco, and narcotics is very small compared to other products, and this indicates there are a lot of short spells in this division.

Table 1-49 Median DAF for 11 COICOP Divisions

DAF (median)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	9	7	8	8
Alcoholic beverages, tobacco, and narcotics	6	5	5	4
Clothing and footwear	8	5	6	5
Housing, water, electricity, gas, and other fuels	11	9	10	7
Furnishings, household equipment maintenance	9	7	7	6
Health	11	12	12	11
Transport	10	6	5	6
Information and communication	11	7	7	7
Recreation, sport, and culture	11	7	7	7
Restaurants and accommodation services	11	9	8	9
Miscellaneous Goods and Services	11	9	9	9

In most cases, the median for these spells in the post-crisis period has stayed more or less the same or increased a little bit, but for transport division and restaurants and accommodation services division the median have increased more than 2 months.

Table 1-50 Median DAF for 11 COICOP Divisions pre- and post-crisis

DAF (median)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	8	7	7	7
post-crisis	9	8	9	8
Alcoholic beverages, tobacco, and narcotics(pre)	5	5	5	4
post-crisis	5	5	5	4
Clothing and footwear(pre)	7	5	5	5
post-crisis	8	5	6	6
Housing, water, electricity, gas, and other fuels(pre)	10	7	9	5
post-crisis	10	12	11	8
Furnishings, household equipment maintenance(pre)	8	7	6	5
post-crisis	9	8	7	6
Health(pre)	10	10	12	8
post-crisis	15	11	10	11
Transport(pre)	7	4	4	4
post-crisis	11	7	7	7
Information and communication(pre)	11	7	7	7
post-crisis	11	7	7	7
Recreation, sport, and culture(pre)	10	8	7	7
post-crisis	11	6	6	6
Restaurants and accommodation services(pre)	9	8	7	8
post-crisis	11	11	9	10
Miscellaneous Goods and Services(pre)	10	9	8	8
post-crisis	11	8	10	8

The standard deviations are pretty small and most of them are less than one. This means these products within each division have similar length of price spells. Two exceptions here are alcoholic beverages, tobacco, and narcotics division and the transport division, which have relatively big std. compared to others.

Table 1-51 Standard Deviations of DAF for 11 COICOP Divisions

DAF (std.)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	0.45	0.78	0.76	0.81
Alcoholic beverages, tobacco, and narcotics	0.87	1.42	1.75	1.97
Clothing and footwear	0.57	1.01	0.97	1.36

Housing, water, electricity, gas, and other fuels	0.30	0.38	0.53	0.71
Furnishings, household equipment maintenance	0.49	0.72	0.89	1.19
Health	0.23	0.27	0.35	0.38
Transport	0.48	1.03	1.39	1.13
Information and communication	0.58	0.85	0.76	0.90
Recreation, sport, and culture	0.31	0.68	0.83	0.87
Restaurants and accommodation services	0.29	0.42	1.01	0.45
Miscellaneous Goods and Services	0.29	0.46	0.54	0.59

For pre- and post-crisis standard deviations, a lot of these numbers have decreased in the post-crisis period. There are cases that we can observe increased std., and these are information and communication division, recreation, sport, and culture division, and miscellaneous goods and services division. All these divisions have a large portion of services products in them, we shall see more details of this when we compare goods and services sectors.

Table 1-52 Standard Deviations of DAF for 11 COICOP Divisions pre- and post-crisis

DAF (std.)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	0.54	0.92	0.90	1.04
post-crisis	0.45	0.70	0.58	0.65
Alcoholic beverages, tobacco, and narcotics(pre)	0.96	1.48	1.86	2.47
post-crisis	0.85	1.40	1.48	1.50
Clothing and footwear(pre)	0.62	1.08	1.16	1.66
post-crisis	0.61	1.08	0.97	1.23
Housing, water, electricity, gas, and other fuels(pre)	0.36	0.52	0.66	0.98
post-crisis	0.37	0.32	0.50	0.62
Furnishings, household equipment maintenance(pre)	0.59	0.82	0.99	1.37
post-crisis	0.49	0.69	0.96	1.19
Health(pre)	0.32	0.32	0.30	0.50
post-crisis	0.17	0.30	0.53	0.40
Transport(pre)	0.78	1.73	2.39	1.91
post-crisis	0.59	1.24	1.17	1.32
Information and communication(pre)	0.56	0.95	0.69	0.91
post-crisis	0.60	0.77	1.12	1.38
Recreation, sport, and culture(pre)	0.35	0.62	0.73	0.83
post-crisis	0.38	0.91	1.15	1.10
Restaurants and accommodation services(pre)	0.36	0.66	1.86	0.66

	post-crisis	0.30	0.31	0.51	0.35
Miscellaneous Goods and Services(pre)		0.34	0.48	0.57	0.62
	post-crisis	0.32	0.52	0.60	0.69

The differences among the skewness of these divisions are huge. Energy and health products are very positively skewed which means there are a lot of small price spells. But the mean duration for the health division is also very big, and this is the result of having some very long price spells in the distribution. The only negative skewed case is from the (+, +) spells from information and communication division, but this number is very small.

Table 1-53 Skewness of DAF for 11 COICOP Divisions

DAF (skewness)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	6.95	4.63	4.34	4.08
Alcoholic beverages, tobacco, and narcotics	1.34	1.53	2.17	1.51
Clothing and footwear	5.27	3.39	3.93	3.04
Housing, water, electricity, gas, and other fuels	11.72	13.92	6.50	6.94
Furnishings, household equipment maintenance	6.47	4.83	4.63	3.47
Health	22.28	11.79	12.12	11.42
Transport	6.81	3.79	2.83	3.11
Information and communication	-1.91	1.25	1.74	1.87
Recreation, sport, and culture	8.86	5.70	4.35	4.08
Restaurants and accommodation services	6.39	7.28	2.92	6.62
Miscellaneous Goods and Services	9.65	8.18	7.85	5.74

Skewness for all divisions have increased after the crisis. For the Health division, skewness has increased from 4.15 to 23.52 after the crisis, and that's almost 6 times bigger compared to the pre-crisis value.

Table 1-54 Skewness of DAF for 11 COICOP Divisions pre- and post-crisis

DAF(skewness)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	4.62	2.55	3.80	2.47

	post-crisis	8.89	5.30	6.47	7.43
Alcoholic beverages, tobacco, and narcotics(pre)		1.61	1.19	2.23	0.74
	post-crisis	2.97	1.76	2.59	2.76
Clothing and footwear(pre)		4.65	2.62	2.73	1.58
	post-crisis	5.67	2.97	4.32	3.01
Housing, water, electricity, gas, and other fuels(pre)		6.61	7.84	5.08	4.93
	post-crisis	11.06	13.24	7.59	7.04
Furnishings, household equipment maintenance(pre)		4.44	2.89	3.56	2.74
	post-crisis	7.89	4.47	4.37	4.26
Health(pre)		4.15	9.84	17.59	9.73
	post-crisis	23.52	12.06	6.43	9.18
Transport(pre)		3.60	1.93	0.90	1.57
	post-crisis	7.13	3.15	4.23	2.91
Information and communication(pre)		-0.41	0.60	2.06	2.14
	post-crisis	-2.49	2.68	0.69	0.01
Recreation, sport, and culture(pre)		6.23	4.19	4.66	2.87
	post-crisis	7.77	4.19	2.95	4.00
Restaurants and accommodation services(pre)		5.28	3.33	0.85	2.92
	post-crisis	6.14	6.04	6.54	7.82
Miscellaneous Goods and Services(pre)		6.03	6.06	5.83	4.45
	post-crisis	11.29	9.02	6.54	6.15

1.7.2 Basic Statistics Across Regions

There are not many differences across these regions, and (+, +) spells have the longest average duration.

Table 1-55 Mean DAF for 12 UK Regions

DAF (mean)	+,+	+,-	-,-	-,+
Unknown	12.48	10.92	11.56	9.95
London	12.06	10.13	10.61	10.55
South East	12.08	10.08	10.24	10.53
South West	12.05	10.09	10.68	10.36
East Anglia	12.33	10.78	11.39	10.93
East Midlands	11.92	10.41	10.94	10.74
West Midlands	11.78	10.23	10.58	10.33
Yorkshire & Humber	11.96	10.22	10.75	10.33
North West	11.61	9.69	10.33	10.06
North	11.75	10.43	11.12	10.57
Wales	12.33	10.67	11.37	10.89

Scotland	11.97	10.08	10.73	10.38
Northern Ireland	12.22	10.34	11.13	10.50

All these price spells in all regions have increased average duration in the post-crisis period.

Table 1-56 Mean DAF for 12 UK Regions pre- and post-crisis

DAF (mean)	+,+	+,-	-,-	-,+
Unknown(pre-)	12.60	11.80	12.31	11.47
post-crisis	12.04	10.06	10.28	8.21
London(pre-)	10.19	8.87	9.33	8.94
post-crisis	12.24	10.36	10.93	10.93
South East(pre-)	10.04	9.00	8.82	8.59
post-crisis	12.62	10.18	11.10	11.60
South West(pre-)	10.09	8.91	9.52	8.62
post-crisis	12.92	10.43	11.26	11.03
East Anglia(pre-)	10.19	9.24	10.02	8.65
post-crisis	12.42	10.83	11.55	11.63
East Midlands(pre-)	10.11	9.18	9.76	9.08
post-crisis	12.60	10.67	11.43	11.79
West Midlands(pre-)	10.02	9.06	9.19	8.51
post-crisis	12.51	10.74	11.57	11.47
Yorkshire & Humber(pre-)	10.07	8.75	9.34	8.85
post-crisis	12.73	10.75	11.51	10.99
North West(pre-)	9.93	8.66	8.88	8.58
post-crisis	12.19	10.16	10.99	10.94
North(pre-)	9.82	8.87	9.87	8.68
post-crisis	13.70	11.84	12.44	12.32
Wales(pre-)	10.66	9.54	10.39	9.12
post-crisis	13.22	11.36	11.96	12.22
Scotland(pre-)	10.05	8.58	9.21	8.43
post-crisis	12.99	10.96	11.41	11.46
Northern Ireland(pre-)	10.49	8.80	9.20	8.59
post-crisis	12.80	10.86	11.55	11.32

The medians for these price spells are the same, just like the mean duration spells across different regions are very similar.

Table 1-57 Median DAF for 12 UK Regions

DAF (median)	+,+	+,-	-,-	-,+
Unknown	10	8	9	7
London	9	7	7	7
South East	9	7	7	7
South West	9	7	7	7
East Anglia	9	7	7	7
East Midlands	9	7	7	7
West Midlands	9	7	7	7
Yorkshire & Humber	9	7	7	7
North West	9	7	7	7
North	9	7	7	7
Wales	9	7	7	7
Scotland	9	7	7	7
Northern Ireland	9	7	7	7

These medians have increased by 1 or 2 since the 2008 great financial crisis, and this means that there are more long price spells in the data.

Table 1-58 Median DAF for 12 UK Regions pre- and post-crisis

DAF (median)	+,+	+,-	-,-	-,+
Unknown(pre-)	11	9	10	9
post-crisis	8	7	7	6
London(pre-)	8	7	6	6
post-crisis	9	7	7	7
South East(pre-)	8	6	6	6
post-crisis	9	7	7	7
South West(pre-)	8	6	6	6
post-crisis	9	7	7	7
East Anglia(pre-)	8	6	7	6
post-crisis	9	7	7	7
East Midlands(pre-)	8	6	6	6
post-crisis	9	7	8	7
West Midlands(pre-)	8	6	6	6
post-crisis	9	7	7	7
Yorkshire & Humber(pre-)	8	6	6	6
post-crisis	9	7	7	7

North West(pre-)	8	6	6	6
post-crisis	9	7	7	7
North(pre-)	8	6	6	6
post-crisis	10	8	8	8
Wales(pre-)	8	7	7	6
post-crisis	10	8	8	8
Scotland(pre-)	8	6	6	6
post-crisis	10	7	7	7
Northern Ireland(pre-)	8	6	6	6
post-crisis	9	7	7	7

The standard deviations from (+, +) spells are the smallest, and all regions have similar numbers.

Table 1-59 Standard Deviations of DAF for 12 UK Regions

DAF (std.)	+,+	+,-	-,-	-,+
Unknown	0.36	0.49	0.44	0.64
London	0.42	0.78	0.85	0.90
South East	0.41	0.78	0.98	1.00
South West	0.41	0.78	0.89	0.96
East Anglia	0.39	0.71	0.81	0.88
East Midlands	0.42	0.75	0.83	0.95
West Midlands	0.43	0.77	0.89	0.97
Yorkshire & Humber	0.42	0.79	0.87	0.99
North West	0.44	0.82	0.94	1.03
North	0.44	0.76	0.82	0.97
Wales	0.40	0.71	0.78	0.89
Scotland	0.42	0.80	0.90	1.00
Northern Ireland	0.40	0.79	0.84	0.97

All standard deviations across all regions have decreased since the great recession. This could be the result of modern development in the transportation system. These goods and services can be much more easily transported to all places within the UK, thus the differences in the prices have been declining. We can still observe these small differences mainly because of

the services sector. A lot of services products cannot be easily transported to other places, for example the price for getting a haircut might be different among some regions.

Table 1-60 Standard Deviations of DAF for 12 UK Regions pre- and post-crisis

DAF (std.)	+,+	+,-	-,-	-,+
Unknown(pre-)	0.31	0.41	0.38	0.43
post-crisis	0.55	0.69	0.65	1.05
London(pre-)	0.54	0.93	0.99	1.14
post-crisis	0.44	0.76	0.82	0.86
South East(pre-)	0.54	0.91	1.17	1.30
post-crisis	0.42	0.80	0.88	0.90
South West(pre-)	0.51	0.89	1.01	1.21
post-crisis	0.42	0.80	0.86	0.88
East Anglia(pre-)	0.50	0.84	0.92	1.16
post-crisis	0.42	0.74	0.82	0.85
East Midlands(pre-)	0.51	0.87	0.95	1.16
post-crisis	0.43	0.75	0.77	0.87
West Midlands(pre-)	0.53	0.87	1.05	1.22
post-crisis	0.44	0.76	0.78	0.82
Yorkshire & Humber(pre-)	0.52	0.95	1.03	1.22
post-crisis	0.42	0.77	0.80	0.89
North West(pre-)	0.52	0.93	1.11	1.24
post-crisis	0.47	0.82	0.87	0.97
North(pre-)	0.55	0.91	0.96	1.25
post-crisis	0.38	0.67	0.70	0.75
Wales(pre-)	0.48	0.81	0.86	1.10
post-crisis	0.40	0.68	0.73	0.75
Scotland(pre-)	0.52	0.96	1.10	1.28
post-crisis	0.41	0.76	0.80	0.89
Northern Ireland(pre-)	0.46	0.88	0.96	1.21
post-crisis	0.44	0.79	0.84	0.91

All these regions have a positive skewness around 7 which means there are a lot of small spells all around the UK.

Table 1-61 Skewness of DAF for 12 UK Regions

DAF (skewness)	+,+	+,-	-,-	-,+
Unknown	6.83	5.99	5.82	4.63
London	7.22	4.03	4.26	3.97
South East	7.48	3.96	3.32	3.53
South West	7.47	3.97	4.12	3.52
East Anglia	8.56	5.35	5.42	4.44
East Midlands	6.99	4.52	4.75	3.93
West Midlands	6.41	4.22	4.01	3.44
Yorkshire & Humber	7.10	4.06	4.30	3.35
North West	5.94	3.30	3.55	2.97
North	6.21	4.50	5.03	3.68
Wales	8.30	5.16	5.61	4.38
Scotland	7.12	3.84	4.12	3.38
Northern Ireland	7.95	4.25	4.93	3.61

The skewness for every region has increased significantly since the great recession. A lot of these short spells are (+, +) spells.

Table 1-62 Skewness of DAF for 12 UK Regions pre- and post-crisis

DAF (skewness)	+,+	+,-	-,-	-,+
Unknown(pre-)	5.15	6.91	6.04	5.69
post-crisis	7.35	4.41	5.05	2.10
London(pre-)	4.05	2.02	3.36	2.58
post-crisis	7.42	4.41	4.79	4.58
South East(pre-)	3.80	3.29	2.41	1.99
post-crisis	8.61	3.96	4.64	5.11
South West(pre-)	4.11	3.27	3.50	2.17
post-crisis	9.26	4.28	4.93	4.56
East Anglia(pre-)	4.39	3.87	3.28	2.29
post-crisis	8.08	5.20	5.57	5.42
East Midlands(pre-)	4.16	3.64	3.96	2.65
post-crisis	8.37	4.86	4.48	5.48
West Midlands(pre-)	3.82	3.53	3.04	2.06
post-crisis	8.04	4.94	5.86	5.42
Yorkshire & Humber(pre-)	4.01	2.91	3.23	2.33
post-crisis	8.93	4.87	5.63	4.50

North West(pre-)	3.69	2.86	2.61	2.08
post-crisis	6.76	3.86	4.56	4.06
North(pre-)	3.28	3.17	4.04	2.14
post-crisis	9.62	5.75	6.33	5.79
Wales(pre-)	5.56	3.15	3.94	2.82
post-crisis	8.11	4.97	5.46	5.60
Scotland(pre-)	3.91	2.68	2.91	1.90
post-crisis	7.26	5.24	5.55	4.99
Northern Ireland(pre-)	5.45	3.20	3.34	2.14
post-crisis	8.63	4.88	5.39	4.72

1.7.3 Basic Statistics for Independent and Multiple Shops

Now we compare these numbers between multiple and independent shops. The mean duration of (+, +) for independent shops is significantly higher than the mean duration from multiple shops, and the difference is more than 3 months. For the other three types of spells, the mean durations are all around 10 months.

Table 1-63 Mean DAF for Independent and Multiple Shops

DAF (mean)	+,+	+,-	-,-	-,+
multiple	11.09	10.12	10.94	10.31
independent	14.30	10.67	9.84	11.10

The mean durations for these spells all increased about 2 months since the great recession. The mean durations have increased more for independent shops especially for spells that start with price increase, and this indicates that these shocks have bigger impacts on independent shops.

Table 1-64 Mean DAF for Independent and Multiple Shops pre- and post-crisis

DAF (mean)	+,+	+,-	-,-	-,+
multiple(pre-)	9.83	9.13	9.73	8.77
post-crisis	11.96	10.74	11.71	11.36
independent(pre-)	11.10	8.29	7.67	8.58

post-crisis	14.98	10.36	9.96	11.43
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The median of (+, +) spells is much higher for independent shops.

Table 1-65 Median DAF for Independent and Multiple Shops

DAF (median)	+,+	+,-	-,-	-,+
multiple	8	7	7	7
independent	11	7	7	8

The median also tells us that the differences between pre- and post-crisis periods are bigger for independent shops. The median of (-, -) spells have increased by 2 for independent shops since the great recession.

Table 1-66 Median DAF for Independent and Multiple Shops pre- and post-crisis

DAF (median)	+,+	+,-	-,-	-,+
multiple(pre-)	8	6	7	6
post-crisis	8	7	8	7
independent(pre-)	10	6	5	6
post-crisis	11	7	7	7

Standard deviations of (+, +) and (-, +) spells are much smaller for independent shops, while the opposite result is found in (-, -) spells.

Table 1-67 Standard Deviations of DAF for Independent and Multiple Shops

DAF (std.)	+,+	+,-	-,-	-,+
multiple	0.49	0.77	0.83	0.99
independent	0.27	0.71	0.98	0.76

All standard deviations have decreased since the great recession, and the drops are bigger for independent shops.

Table 1-68 Standard Deviations of DAF for Independent and Multiple Shops pre- and post-crisis

DAF (std.)	+,+	+,-	-,-	-,+
multiple(pre-)	0.55	0.85	0.94	1.20
post-crisis	0.48	0.75	0.77	0.88
independent(pre-)	0.39	1.01	1.36	1.14
post-crisis	0.27	0.75	0.92	0.73

First of all, these distributions of spells are all positively skewed. For (+, +) spells, skewness for independent shops is almost doubled compared to multiple shops, and this means there are many shorter (+, +) spells for independent shops. For (-, -) spells, it is the other way around. There are shorter (-, -) spells for multiple shops.

Table 1-69 Skewness of DAF for Independent and Multiple Shops

DAF (skewness)	+,+	+,-	-,-	-,+
multiple	6.29	4.04	4.71	3.32
independent	12.15	5.12	2.88	4.05

There are more short spells in the post-crisis period, and independent shops are more impacted by the great recession.

Table 1-70 Skewness of DAF for Independent and Multiple Shops pre- and post-crisis

DAF (skewness)	+,+	+,-	-,-	-,+
multiple(pre-)	3.29	3.65	2.88	2.30
post-crisis	8.10	4.95	4.80	4.93
independent(pre-)	2.81	2.26	1.95	2.26
post-crisis	14.56	4.48	3.18	6.00

1.7.4 Basic Statistics for Goods and Services Sectors

Finally, we compare DAF between goods and services sectors. Mean durations for all four types of spells are higher in the services sector which means prices are more rigid for services products. (+, +) spells have the biggest mean duration.

Table 1-71 Mean DAF for Goods and Services Sectors

DAF (mean)	+,+	+,-	-,-	-,+
goods	11.30	10.01	10.81	10.29
services	14.05	12.96	12.68	12.59

Mean durations for all types of spells have increased more after the great recession. The 2008 financial crisis impacted the services more than the goods sector.

Table 1-72 Mean DAF for Goods and Services Sectors pre- and post-crisis

DAF (mean)	+,+	+,-	-,-	-,+
goods(pre-)	9.93	9.13	9.81	8.83
post-crisis	11.77	10.05	10.76	10.52
services(pre-)	11.68	11.02	10.22	10.30
post-crisis	14.40	12.68	12.98	13.05

The median is higher for the services sector as there are longer spells for services products than goods.

Table 1-73 Median DAF for Goods and Services Sectors

DAF (median)	+,+	+,-	-,-	-,+
goods	8	7	7	6
services	11	9	9	9

The medians all have increased by 1 except for (+, -) spells in the goods sector.

Table 1-74 Median DAF for Goods and Services Sectors pre- and post-crisis

DAF (median)	+,+	+,-	-,-	-,+
goods(pre-)	7	6	6	6
post-crisis	8	6	7	7
services(pre-)	10	8	7	8
post-crisis	11	9	8	9

Standard deviations are higher in the goods sector which means the distribution of goods prices are more spread than services.

Table 1-75 Standard Deviations of DAF for Goods and Services Sectors

DAF (std.)	+,+	+,-	-,-	-,+
goods	0.53	0.83	0.88	1.07
services	0.27	0.44	0.64	0.51

The 2008 financial crisis seems to have bigger impact on (-, +) spells in the goods sector and (-, -) spells in the services sector. The differences between the pre- and post-crisis periods are 0.27 and 0.26 respectively.

Table 1-76 Standard Deviations of DAF for Goods and Services Sectors pre- and post-crisis

DAF (std.)	+,+	+,-	-,-	-,+
goods(pre-)	0.61	0.93	0.99	1.31
post-crisis	0.53	0.85	0.90	1.04
services(pre-)	0.33	0.56	0.89	0.67
post-crisis	0.27	0.47	0.63	0.52

For skewness, we can see that the distribution for the services sector is more positively skewed especially for spells that start with a price increase.

Table 1-77 Skewness of DAF for Goods and Services Sectors

DAF (skewness)	+,+	+,-	-,-	-,+
goods	6.27	3.61	4.33	4.01
services	11.47	9.06	5.77	7.04

The 2008 financial crisis seems to have raised the proportion of short price spells, and it impacted more on the services sector.

Table 1-78 Skewness of DAF for Goods and Services Sectors pre- and post-crisis

DAF (skewness)	+,+	+,-	-,-	-,+
goods(pre- post-crisis)	4.79 7.17	3.36 4.77	3.85 4.19	2.17 3.38
services(pre- post-crisis)	5.01 12.68	5.44 7.90	3.61 7.94	3.45 7.80

The following two graphs show you how age distribution and DAF look like on the graph. The solid blue line which represents (+, +) spells start at lower hazard rate, then slowly catches up with the others, and finally have higher hazard rates at around period 5 or 6. And on both graphs, the hazard functions for (+, +) spells have a little spike around period 12. There are two major differences in the graphs. First, the hazard rates almost become zero after period 12 for the age distribution while the hazard functions can last a little longer until period 24. Second, the hazard function for (+, +) spells is increasing for the beginning 3 or 4 periods for the Duration Across Firms as shown on the right hand side graph.

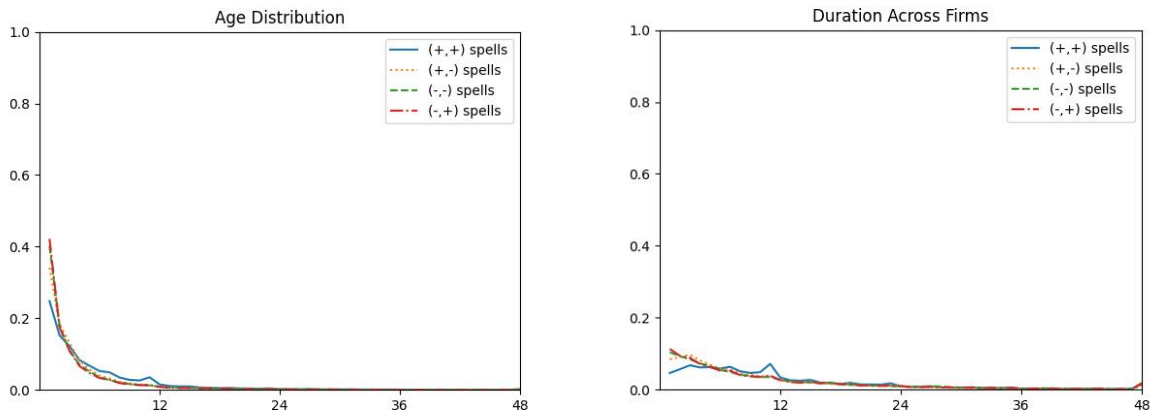


Figure 1-47 Age and DAF Distributions

1.8 Concluding Remarks

In this chapter, we used two important measurements, which are frequency of price changes and duration of price spells, to measure price rigidity in the UK. We showed the hazard function plots using the Kaplan-Meier estimator, and did some duration analysis using the non-parametric survival analysis and the cross-sectional method. We also answered the important question that have prices become more flexible since the 2008 great financial crisis. The answer to this question is no, and here are the main findings from the CPI price quotes data:

Frequency of price increases positively comoves with CPI inflation while frequency of price decreases negatively comoves with CPI inflation. When we look at the data at aggregate level, the result is that frequency of price changes weakly comoves with CPI inflation. Sales contribute a lot to fluctuations in CPI inflation. The number of price spells that marked as sales is 153,974 before the crisis, and it becomes 43,524 in the post-crisis period sample. The decreased number of sales could be the reason that prices are more rigid after the crisis.

After partitioning the hazard functions, we found that the majority of price spells are (+, +) spells. For the services sector, the percentage of (+, +) is 54%. There is heterogeneity among

the 11 COICOP divisions, but no strong evidence of regional variations was found from the data. The percentage of (+, +) spells has decreased since the 2008 great financial crisis while the percentage of (+, -) has increased.

For the hazard function plots, the 12-month spike pattern, which was found in previous studies, was only found in (+, +) spells. For hazard functions in the services sector, there is a 4-month spike pattern. Since we have a lot more price quotes from the goods sector than the services sector, the aggregate level hazard function only shows the 12-month spike pattern. These spikes suggest there is seasonality in the data, and how often the prices are being reset can vary in different divisions. This difference is not so obvious in different UK regions, one possible explanation is that these big multiple shops with high market shares have many branch stores across the UK, and they all change prices at the same time.

The average frequency of price changes is 21.42%. The average frequency of price increases is 11.57% and the average frequency of price decreases is 9.84%. If we look at the aggregate level of frequency of price changes, there is no big difference before and after the financial crisis. But, if we look at the frequency of price increases and decreases, before the great financial crisis the former was about 3% higher than the later while after the crisis the two have similar statistics which both are around 10%.

The log-rank test was used to test whether there is significant survival difference before and after the crisis in different scenarios. Among the 11 COICOP divisions, we found no evidence of survival difference in three divisions, two of them were from the services sector and one was from the goods sector. We also found that in a lot of cases there is no significant survival difference at the aggregate level, but after partitioning the price spells into four subsets, they also show significant test results. This indicates that some of these effects are canceling

each other at the aggregate level, and we should look at the price spells separately in future studies.

From the cross-sectional method results, we found that the average duration of price spells (DAF) is about 11 months which is a strong evidence of price rigidity in the UK. Multiple shops change prices more frequently compared to independent shops, and this could be the result of these independent shops are more reluctant to change prices because they are afraid of losing customers. The average duration of price spells for the services sector is about 2 months longer than the goods sector. One major difference between the goods and services sector is mobility. A lot of services products are haircuts, local restaurants, and etc. and they have higher adjustment costs compared to the goods prices like food and drinks, but information and communication services prices do change very frequently.

Chapter 2 What Determines Price Rigidity?

2.1 Introduction

In the previous chapter, we derived the hazard functions using Kaplan-Meier estimator. It is a non-parametric method as it assumes the hazard function purely depends time, but in real life there are lots of things that can affect the hazard function. Therefore, we introduce the semi-parametric Cox proportional hazard model which allows covariates to play a role in the price setting process. The aim of this chapter is to find what determines price rigidity in the economy. Coenen et al. (2007) found that lagged inflation cannot explain aggregate data, and later Mackowiak and Wiederholt (2009) found that individual firm-specific shocks are more important in the price setting process compared to aggregate shocks. Similar result, which indicated prices reacted quicker to sector shocks, was found by Costain and Nakov (2011). Wage is also an important determinant in price rigidity found by Klenow and Malin (2010). In more recent studies Hahn and Marenčák (2019) and Levy et al. (2020) explored the effects of price endings in these price quotes on price rigidity, and they found that people treat price quotes differently according to price endings, especially prices that end with a zero or a nine. In terms of price patterns, Bunn and Ellis (2009) found no evidence of TDP or SDP pricing pattern using UK data. From the previous section, we've explained about SDP says that price rigidity depends on the state of the economy, and the state of the economy can be measured indirectly by including lots of macro variables in the empirical model. Costain and Nakov (2011) found the opposite result which indicates state dependence matters for the speed of price adjustments. Zhou and Dixon (2018) found that the goods sector follows the Generalized Calvo pricing pattern while the services sector follows the Generalized Taylor pricing pattern.

2.2 Model Specifications and Covariates Selection

We use Cox (1972) proportional hazards model to find the determinants of price rigidity. Zhou and Dixon (2018) also used this approach in their study. Here, I include more covariates in the model, and I apply this model to each sector to get some new results. As you can see from the following equation, there are two major parts on the right-hand side of the equation. The first part $b_0(t)$ is called the baseline hazard which only depends on time t . The x_i in the rest part of the equation represents a bunch of covariates in this model. What this model does is to estimate the effect from each covariate on the hazard function. One important assumption for the Cox model is the proportional hazards assumption which says the hazard ratio doesn't depend on time. If we use $b_0(t)$ to denote the baseline hazards, and $b_1(t)$ to denote the hazards from having a covariate, then the hazard ratio is simply $b_1(t)/b_0(t)$ which should be a constant. The left hand side of equation represents the hazard function at time t for product i given the covariates that denoted by X_i . The number of observations in the Cox model is actually the number of death events observed in the data in each period, and since we only use complete price spells the number of death events is equal to the number of price spells which is 2,462,838 the same number that I showed in chapter 1. When estimate the Cox model, we need to pass two parameters for the left hand side of the equation, and they are the durations of price spells (the length of time that a price spell has lasted, not calendar time) and the number of death events observed in each month.

$$\hat{h}(t|x_i) = b_0(t) \exp \left(\sum_{i=1}^n b_i x_i \right) \quad (2.1)$$

There are three models that are going to be estimated. The first two models are benchmark models, and the third model is going to be the full model. The purpose of these benchmark models is to link the results from this chapter to the ones I found in chapter 1.

Model 1:

Recall from chapter 1, I found the hazard functions are quite different in each COICOP division in the non-parametric analysis using the Kaplan-Meier estimator. According to Bunn and Ellis (2009) 12 COICOP divisions can be grouped into 9 sectors which are alcoholic beverages/tobacco/narcotics, non-alcoholic beverages and food, energy goods, non-energy goods, housing, transport/travel, communication, recreational/personal care, and miscellaneous services as some of products in different divisions have similar pricing pattern. We left alcoholic beverages out of the model to avoid the dummy variable trap. In model 1, I only include sectoral dummies in the equation to check for heterogeneity among 9 sectors as indicated by equation (2.2) where s_i denotes the 9 sectors. I'll first estimate the model using all the data I have, then I examine the effect of the 2008 financial crisis by splitting the data into to subsamples 1988m3-2007m12 and 2008m1-2019m12.

$$\hat{h}(t|s_i) = b_0(t) \exp \left(\sum_{i=1}^8 b_i s_i \right) \quad (2.2)$$

Model 2:

Model is used to examine the time effects on the hazard function by including a full set of time dummies only in the model, and 1989m1 will be the reference month to avoid to the dummy variable trap. Recall the sample sized is 382 months, there will be 381 time dummies included in the model. For example, the if a price spell ended in March 2012, then dummy variable would be equal to 1 for 201203 for this price spell. I'll first estimate equation (2.3) which only contains time dummies, then I'll add sectoral dummies in the model to compare the results.

$$\hat{h}(t|time_i) = b_0(t) \exp\left(\sum_{i=1}^{381} b_i time_i\right) \quad (2.3)$$

Model 3:

In reality, there are lots of factors that can contribute to the hazard functions, so model 3 will be the full equation that includes all the covariates that are relevant. There are 198 covariates in total.

For covariates we included in the model: First we included regional and monthly dummies. As mentioned in the previous chapter, there are 13 regions in total in the UK, and here we left London out to avoid the dummy variable trap. Similarly, January is left out of the model for monthly dummies.

For micro covariates we included sectoral dummies. We also included shop type dummy (multiple shops excluded), goods type dummy (non-durable goods excluded), price endings (prices end with a nine or zero), market share of a product, and sales dummy. In addition, we have two more special covariates. One is price spell type dummies to represent different types of spells, the other is consumer trends. We included (+, +), (+, -), and (-, -) dummies to represent these three types of price spells, and we excluded (-, +) spells dummy in the model. Consumer trends data tells us the share of consumers' expenditures in each sector.

For macro covariates, we included wage, VAT, net export. We also included crude oil prices, month on month CPI inflation, nominal interest rate, sector specific month on month CPI inflation for nine sectors, and their lagged terms up to 12 months. All these macro covariates were calculated in percentage changes, and we collected these macro data from various sources like IMF (International Monetary Fund), OECD (Organization for Economic Cooperation and

Development), and ONS (Office for National Statistics). Including these macro covariates is useful to reflect the state of the economy.

I'll first estimate the full equation using all the data and examine the effect from the great financial crisis by splitting the data into two samples as discussed in model 1. Since there is heterogeneity in the sectors, I'll split the data into 9 subsamples according which sector that product belongs to, and there will be no sectoral dummies included in the equation. Therefore the number of covariates will be reduced to 190. I'll then compare the results between sales included and excluded data, so in the case of sales excluded, there will be no dummy variable for sales. Finally, I'll also compare the results between goods and services sector.

2.3 Results

I'm only showing you the results from the full sample estimation as we have almost 200 covariates in our model. You can find all results from the Cox model in Appendix 12. The results from the Cox model are being reported in two parts, the coefficients and the hazard ratios which are defined as $\exp(\text{coefficients})$. If the hazard ratio is smaller than 1, then it means that this covariate increases the survival probability, in other words it reduces the risk of this price quote being switched to another price quote. If the hazard ratio is greater than 1, then it means that this covariate lowers the survival probability. If the hazard ratio is equal to 1, then it means there is no survival difference for including this covariate in the model.

2.3.1 Results from Model 1

From the full sample results, we can see that all coefficients show significant survival difference compared to alcoholic drinks/narcotics sector except for the energy sector. From chapter 1, we know that prices change very frequently for energy products and alcoholic drinks,

and here we've found that the price setting processes are similar for them. In the pre-crisis period, besides energy goods, communication services also have no survival difference compared to alcoholic drinks and narcotics.

Table 2-1 Results for Model 1 from Cox Baseline

full sample	coef	H.R.
covariate		
Non-		
Alcoholic/Beverage	0.0609***	1.0628***
Energy	-0.0029	0.9971
Non-Energy	0.0513***	1.0526***
	-	
Housing	0.1829***	0.8328***
	-	
Transport/Travel	0.5173***	0.5961***
Communication	0.0748***	1.0776***
Recreational/Personal	-0.418***	0.6584***
Miscellaneous	0.2365***	1.2668***

Table 2-2 Results for Model 1 Pre-Crisis

pre-crisis	coef	H.R.
covariate		
Non-		
Alcoholic/Beverage	0.0102***	1.0102***
Energy	0.0112	1.0113
Non-Energy	0.0663***	1.0685***
	-	
Housing	0.1309***	0.8773***
Transport/Travel	-0.557***	0.5729***
Communication	0.009	1.009
	-	
Recreational/Personal	0.4519***	0.6364***
Miscellaneous	0.1532***	1.1656***

Table 2-3 Results for Model 1 Post-Crisis

post-crisis	coef	H.R.
covariate		
Non-	0.1057***	1.1115***

Alcoholic/Beverage		
	-	
Energy	0.0419***	0.9589***
Non-Energy	0.0515***	1.0529***
	-	
Housing	0.1772***	0.8376***
Transport/Travel	-0.501***	0.6059***
Communication	0.1112***	1.1177***
	-	
Recreational/Personal	0.4132***	0.6615***
Miscellaneous	0.3105***	1.3641***

From fig 2-1, it seems there is no big survival difference for the initial 12 months, but after that prices in the pre-crisis period are more flexible as indicated by the dashed orange line. The log-rank test result also suggests that there is significant survival difference at 1% significance level.

Table 2-4 Log-rank Test Result for Model 1

pre- and post-crisis survival difference test	Test Statistic	P-value
model 1	62.59***	<0.005

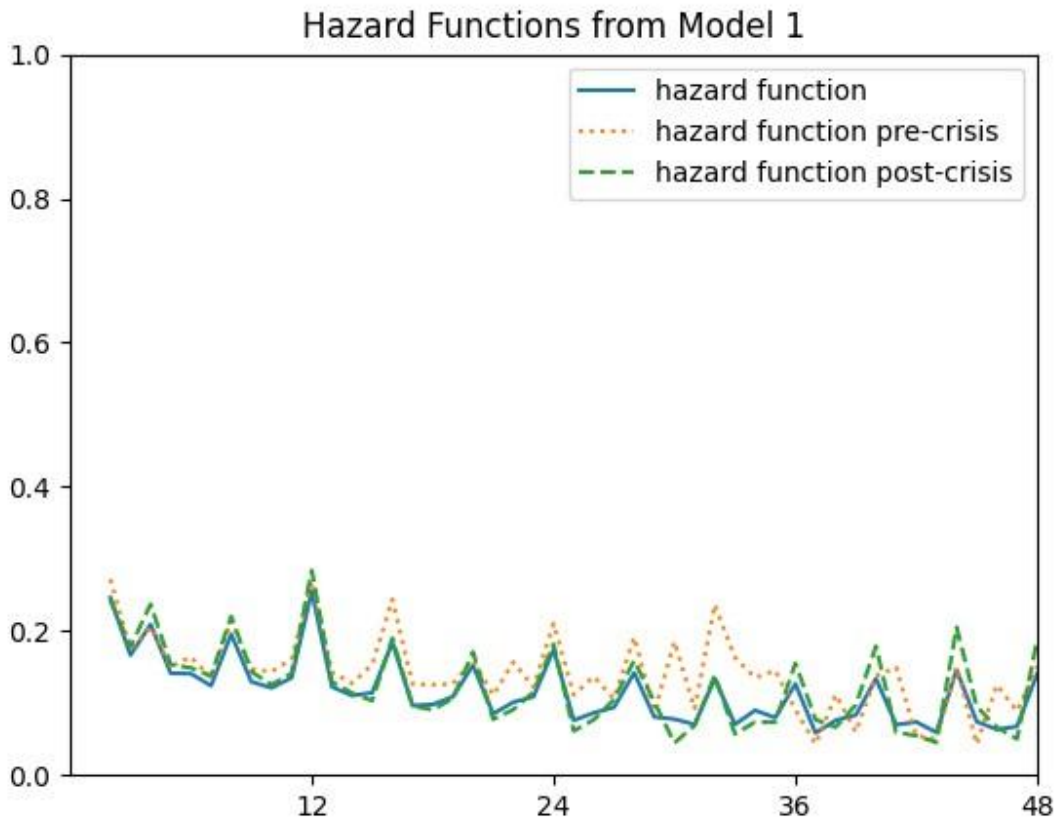


Figure 2-1 Hazard Functions from Model 1

2.3.2 Results from Model 2

Model 2 was used to check for time effects on the hazard function, and 1989m1 was left out of the model and used as the reference month. So, the coefficients or hazard ratios we got tell us about whether there is significant survival difference between 1989m1 and each other calendar month. The results suggest that the pricing pattern had been similar before 2008. There is evidence for monthly effects in the data as before 2008, there's no significant survival difference around May and Oct compared to 1989m1 each year. But, after 2008m5, all time dummies show significant survival difference. This means that the pricing has been changed

after the major shock in the economy, and the monthly dummies that included in model 3 should be able to capture this monthly effect. After adding the sectoral dummies in the model, the time effects become less obvious as more time dummies become insignificant. For the sectoral dummies, the only two insignificant coefficients are from energy and communication services sectors. You can find the results for model 2 in Appendix 2. There is a 12-month spike pattern in the hazard function after adding the sectoral dummies while a 3-month spike pattern is shown for the model with only time dummies. The log-rank test result suggests the survival difference between them is significant.

Table 2-5 Log-rank Test Result for Model 2 from Cox Baseline

pre- and post-crisis survival difference test	Test Statistic	P-value
model 2	26.15***	<0.005

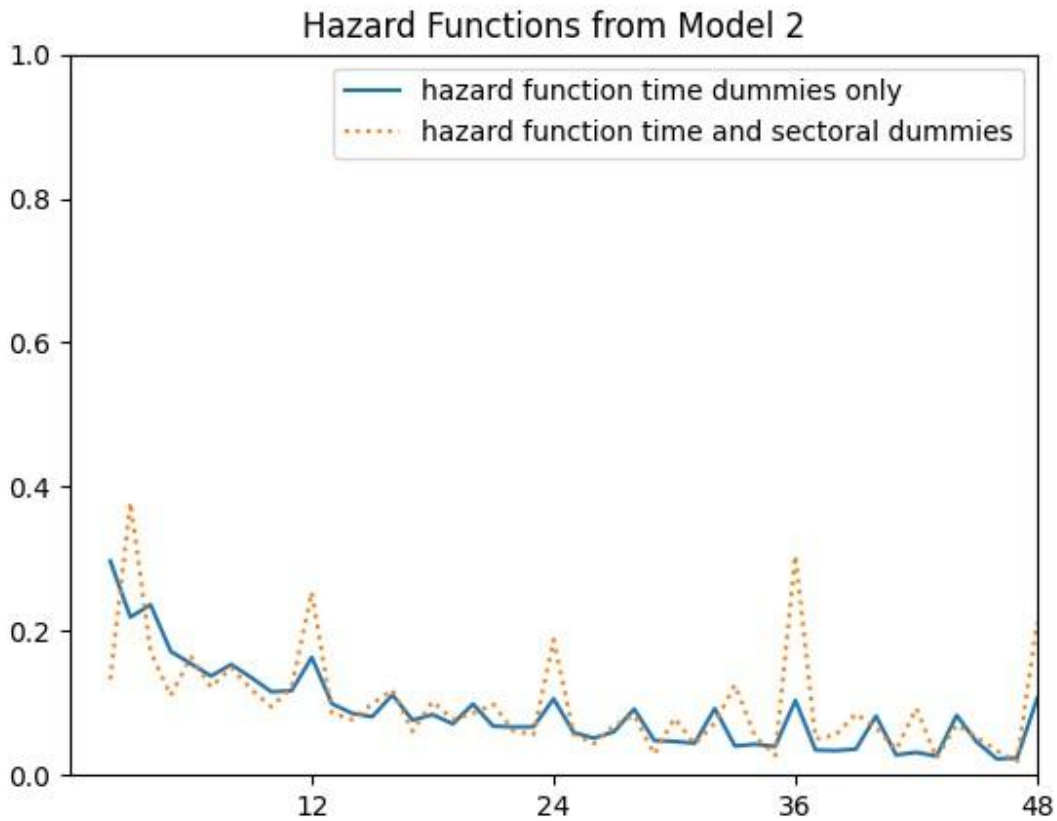


Figure 2-2 Hazard Functions from Model 2

2.3.3 Results from Model 3 Full Sample

Unlike the results from the non-parametric approach, most of these regional dummies show significant increased risk compared to London except for the hazard ratio of East Anglia being insignificant and in North and Wales the prices seem to be more rigid than prices in London. For monthly dummies, we can see significant differences in survival probabilities compared to Jan except for May and Oct. Significant increased risks compared to Jan are found in Mar, Jun, Jul, Sep, and Nov while the rest months show decreased risks.

Table 2-6 Cox Results Regional and Monthly Dummies

Cox Model Full Sample Results		
with sales	full sample	
	coef	H.R.
SE	0.0408***	1.0417***
SW	0.0102***	1.0103***
East_Anglia	-0.0027	0.9973
East_Midlands	0.0059	1.0059**
West_Midlands	0.0168***	1.017***
Yorks_Humber	0.0098***	1.0098***
NW	0.0339***	1.0345***
North	-0.0203***	0.9799***
Wales	-0.031***	0.9695***
Scotland	0.0151***	1.0152***
NI	0.0098***	1.0098***
FEB	-0.0192***	0.9809***
MAR	0.0306***	1.0311***
APR	-0.0209***	0.9793***
MAY	0.0044	1.0044
JUN	0.017***	1.0172***
JUL	0.0258***	1.0262***
AUG	-0.0177***	0.9824***
SEP	0.0134	1.0135**
OCT	-0.0012	0.9988
NOV	0.0488***	1.05***
DEC	-0.0173***	0.9828***

We found significant increased risks compared to alcoholic beverages in sectors non-alcoholic/beverage, energy, communication, and miscellaneous services while significant decreased risks are found in sectors non-energy goods, transport/travel, and recreational/personal services. Prices for semi-durable and durable goods are more flexible compared to non-durable goods. Prices are more flexible for independent shops. These price quotes have different endings, for example a nine ending price quote could be something like 1.49 and a zero ending price quote may look like 1.40. For price endings, we only found that zero ending prices change more frequently than the other type of prices. Sales prices are more flexible compared to regular prices

given the very big hazard ratio which is more than 1.5. Among the four types of price spells, the rank of price flexibility from high to low is as follows: (-, +) spells, (-, -) spells, (+, -) spells, and (+, +) spells.

Table 2-7 Cox Results Micro Covariates

Cox Model Full Sample Results		
with sales	full sample	
	coef	H.R.
Non-Alcoholic/Beverage	0.1173***	1.1244***
Energy	0.0566***	1.0583***
Non-Energy	-0.0175***	0.9827***
Housing	-0.004	0.996
Transport/Travel	-0.2493***	0.7794***
Communication	0.0785***	1.0817***
Recreational/Personal	-0.1896***	0.8273***
Miscellaneous	0.1115***	1.118***
SD	0.1359***	1.1456***
D	0.2189***	1.2447***
independent	0.0329***	1.0334***
nine_ending	-0.0011	0.9989
zero_ending	0.0129***	1.013***
sales	0.4486***	1.5661***
increase_increase	-0.2246***	0.7988***
increase_decrease	-0.0296***	0.9708***
decrease_decrease	-0.0119***	0.9881***

We found inflation in t-1 contributed to decreased risks, but inflation started showing increased risk from t-2, then it reached its first peak in t-3. Another smaller peak for increased risks is found in period t-8, then it gradually died out. Higher market share gives higher price flexibility, but the hazard ratio here is only 1.01 which is a very small number. This might be statistically significant, but not so significant practically. Net export (denoted as NX) can slightly reduce the risk of a price change, and VAT (denoted as tax) can reduce almost 50% of the risk of a price change. Crude oil prices in the first 6 month have small positive effects on increasing the

risk of a price change while from around the 7th month they start to reduce the risk of a price change. For nominal interest rates, they show decreased risks from the current period t to period t-7 and increased starting from t-8. For sector specific CPI month on month inflation rates, non-alcoholic beverages, energy goods, and miscellaneous services, they show increased risks initially, then decreased risks are shown after 3 or 4 periods. For alcoholic beverages, non-energy goods, and housing services, inflation rates in these sectors mainly show decreased risks. There are some extreme large values from recreational/personal services lagged inflation rates, a possible explanation for this result is that it suggests violation of the proportional hazard assumption. The proportional hazard assumption can be tested using the method developed by Grambsch and Therneau (1994). The null hypothesis for this test is that the proportional hazard assumption holds. A list of test results can be found in Appendix 12. As suggested by the test results, although a lot of covariates passed the test, but there's still a lot of them failed to pass the test which means the hazard ratios on these covariates can be misleading. Finally for consumer trends, we found no significant survival differences contributed by expenditure shares in food/non-alcoholic beverages and transport/travel services. We found significant increased risks from expenditure shares in alcoholic beverages and housing services and significant decreased risks from expenditure shares in energy goods, non-energy goods, communication, recreational/personal services, and miscellaneous services.

Table 2-8 Cox Results Macro Covariates

Cox Model Full Sample Results		
with sales	full sample	
	coef	H.R.
wage	0.205***	1.2275***
tax	-0.6194***	0.5383***
NX	-0.0276***	0.9728***
market_share	0.01***	1.01***

oil	0.0792***	1.0824***
oil_1	0.0015***	1.0015***
oil_2	0.0016***	1.0016***
oil_3	0.0007***	1.0007***
oil_4	0.0011***	1.0011***
oil_5	0.0004***	1.0004***
oil_6	-0.0003***	0.9997***
oil_7	0.0001	1.0001
oil_8	-0.0004***	0.9996***
oil_9	-0.0009***	0.9991***
oil_10	-0.001***	0.999***
oil_11	-0.0018***	0.9982***
oil_12	-0.0011***	0.9989***
inflation_1	-1.3878***	0.2496***
inflation_2	1.122***	3.0709***
inflation_3	4.5114***	91.0501***
inflation_4	2.4253***	11.3053***
inflation_5	0.3246	1.3835
inflation_6	-2.0694***	0.1263***
inflation_7	-0.7713	0.4624*
inflation_8	2.0066***	7.4383***
inflation_9	0.9658	2.6269**
inflation_10	0.8463	2.331**
inflation_11	-0.6547	0.5196
inflation_12	0.4162	1.5162
R	-0.2284***	0.7958***
R_1	-0.001***	0.999***
R_2	0.0001	1.0001
R_3	-0.0023***	0.9977***
R_4	-0.0015***	0.9985***
R_5	-0.0013***	0.9987***
R_6	0	1
R_7	-0.0008***	0.9992***
R_8	0.0015***	1.0015***
R_9	0.0004***	1.0004***
R_10	0.0011***	1.0011***
R_11	0.0021***	1.0021***
R_12	0.0009***	1.0009***
Food/Non_alcoholic_inflation_1	1.2401***	3.4559***
Food/Non_alcoholic_inflation_2	2.424***	11.2913***
Food/Non_alcoholic_inflation_3	-0.4432***	0.642***
Food/Non_alcoholic_inflation_4	1.8337***	6.2568***
Food/Non_alcoholic_inflation_5	1.4047***	4.0742***

Food/Non_alcoholic_inflation_6	1.6249***	5.0781***
Food/Non_alcoholic_inflation_7	-0.286	0.7513**
Food/Non_alcoholic_inflation_8	0.0547	1.0563
Food/Non_alcoholic_inflation_9	-0.9442***	0.389***
Food/Non_alcoholic_inflation_10	-0.4686***	0.6259***
Food/Non_alcoholic_inflation_11	0.1806	1.198
Food/Non_alcoholic_inflation_12	-0.2872	0.7503**
Alcoholic_inflation_1	-1.8084***	0.1639***
Alcoholic_inflation_2	-2.2913***	0.1011***
Alcoholic_inflation_3	-1.6443***	0.1931***
Alcoholic_inflation_4	-1.1141***	0.3282***
Alcoholic_inflation_5	-0.4541***	0.635***
Alcoholic_inflation_6	-0.2324	0.7926**
Alcoholic_inflation_7	0.2241	1.2512**
Alcoholic_inflation_8	1.1817***	3.2598***
Alcoholic_inflation_9	-0.1181	0.8886
Alcoholic_inflation_10	0.6936***	2.001***
Alcoholic_inflation_11	0.8118***	2.2519***
Alcoholic_inflation_12	-0.4866***	0.6147***
Energy_inflation_1	0.1999***	1.2213***
Energy_inflation_2	-0.6779***	0.5077***
Energy_inflation_3	-0.3351***	0.7153***
Energy_inflation_4	-0.0578	0.9438
Energy_inflation_5	0.1676***	1.1825***
Energy_inflation_6	0.7254***	2.0656***
Energy_inflation_7	0.8016***	2.2291***
Energy_inflation_8	-0.069	0.9333
Energy_inflation_9	0.074	1.0768
Energy_inflation_10	0.7121***	2.0382***
Energy_inflation_11	0.5681***	1.765***
Energy_inflation_12	0.0518	1.0531
Non_energy_goods_inflation_1	-0.0418	0.9591
Non_energy_goods_inflation_2	-0.4882***	0.6137***
Non_energy_goods_inflation_3	-0.5318***	0.5876***
Non_energy_goods_inflation_4	-0.3278***	0.7205***
Non_energy_goods_inflation_5	0.414***	1.5129***
Non_energy_goods_inflation_6	-0.6432***	0.5256***
Non_energy_goods_inflation_7	-0.3721***	0.6893***
Non_energy_goods_inflation_8	-0.0315	0.969
Non_energy_goods_inflation_9	-0.1807	0.8346
Non_energy_goods_inflation_10	-1.1231***	0.3253***
Non_energy_goods_inflation_11	-0.0493	0.9519
Non_energy_goods_inflation_12	-0.2154	0.8062*

Housing_services_inflation_1	-2.9671***	0.0515***
Housing_services_inflation_2	-3.9101***	0.02***
Housing_services_inflation_3	-2.2302***	0.1075***
Housing_services_inflation_4	1.0559***	2.8744***
Housing_services_inflation_5	1.4708***	4.3527***
Housing_services_inflation_6	-0.7768***	0.4599***
Housing_services_inflation_7	-3.4739***	0.031***
Housing_services_inflation_8	-3.9943***	0.0184***
Housing_services_inflation_9	-0.6355	0.5297**
Housing_services_inflation_10	-0.8605***	0.4229***
Housing_services_inflation_11	2.6271***	13.8339***
Housing_services_inflation_12	-0.1968	0.8214
Transport/travel_services_inflation_1	0.1766	1.1932*
Transport/travel_services_inflation_2	1.2252***	3.4048***
Transport/travel_services_inflation_3	1.9681***	7.1573***
Transport/travel_services_inflation_4	1.2457***	3.4753***
Transport/travel_services_inflation_5	1.7493***	5.7507***
Transport/travel_services_inflation_6	1.4363***	4.2052***
Transport/travel_services_inflation_7	0.6835***	1.9809***
Transport/travel_services_inflation_8	1.0083***	2.7409***
Transport/travel_services_inflation_9	1.1281***	3.0897***
Transport/travel_services_inflation_10	1.5246***	4.5933***
Transport/travel_services_inflation_11	0.8467***	2.3319***
Transport/travel_services_inflation_12	0.9509***	2.588***
Communication_inflation_1	1.4737***	4.3656***
Communication_inflation_2	0.1469	1.1582
Communication_inflation_3	0.6848***	1.9833***
Communication_inflation_4	1.2218***	3.3933***
Communication_inflation_5	1.4067***	4.0826***
Communication_inflation_6	1.1735***	3.2332***
Communication_inflation_7	0.6602***	1.9352***
Communication_inflation_8	-0.7655***	0.4651***
Communication_inflation_9	0.885***	2.4229***
Communication_inflation_10	0.8002***	2.226***
Communication_inflation_11	0.9096***	2.4833***
Communication_inflation_12	-0.1286	0.8793
Recreational/personal_services_inflation_1	7.8487***	2562.3216***
Recreational/personal_services_inflation_2	10.9729***	58270.6146***
Recreational/personal_services_inflation_3	9.0765***	8747.5729***
Recreational/personal_services_inflation_4	8.4513***	4681.0009***
Recreational/personal_services_inflation_5	11.6406***	113620***
Recreational/personal_services_inflation_6	5.8965***	363.7628***
Recreational/personal_services_inflation_7	4.3212***	75.2786***

Recreational/personal_services_inflation_8	9.734***	16882.7762***
Recreational/personal_services_inflation_9	8.9308***	7561.3566***
Recreational/personal_services_inflation_10	6.8115***	908.2387***
Recreational/personal_services_inflation_11	7.6162***	2030.7529***
Recreational/personal_services_inflation_12	4.2074***	67.1843***
Miscellaneous_services_inflation_1	1.1465***	3.147***
Miscellaneous_services_inflation_2	1.7915***	5.9982***
Miscellaneous_services_inflation_3	-1.7461***	0.1745***
Miscellaneous_services_inflation_4	-0.599	0.5494**
Miscellaneous_services_inflation_5	-1.2174***	0.296***
Miscellaneous_services_inflation_6	-2.4647***	0.085***
Miscellaneous_services_inflation_7	-4.5835***	0.0102***
Miscellaneous_services_inflation_8	-6.7941***	0.0011***
Miscellaneous_services_inflation_9	-5.5874***	0.0037***
Miscellaneous_services_inflation_10	-7.719***	0.0004***
Miscellaneous_services_inflation_11	-8.157***	0.0003***
Miscellaneous_services_inflation_12	-5.805***	0.003***
Food/Non_alcoholic_expenditure	0.0242	1.0245
Alcoholic_expenditure	0.1471***	1.1585***
Energy_expenditure	-0.0175	0.9827**
Non_energy_goods_expenditure	-0.0559	0.9456**
Housing_services_expenditure	0.3291***	1.3897***
Transport/travel_services_expenditure	0.0016	1.0016
Communication_expenditure	-0.1498***	0.8609***
Recreational/personal_services_expenditure	-0.0814***	0.9218***
Miscellaneous_services_expenditure	-0.2342***	0.7912***

For comparison between pre- and post-crisis periods, we found more significant regional dummies in the post-crisis period. Wage shows decreased risks in the pre-crisis period and increased risks in the post-crisis period. The prices for independent shops have become more flexible since the 2008 financial crisis. The effects of having net export changed from increased risks to decreased risks, and similar results were found in the zero-ending and nine-ending price quotes. In the post-crisis period, lagged inflation rates especially after 6 periods are not statistically significant. The effects of having nominal interest rates, especially in the current period, changed a lot from significant increased risks to significant decreased risks.

Table 2-9 Log-rank Test for Full Sample Cox Baseline

pre- and post-crisis survival difference test	Test Statistic	P-value
full sample	28.95***	<0.005

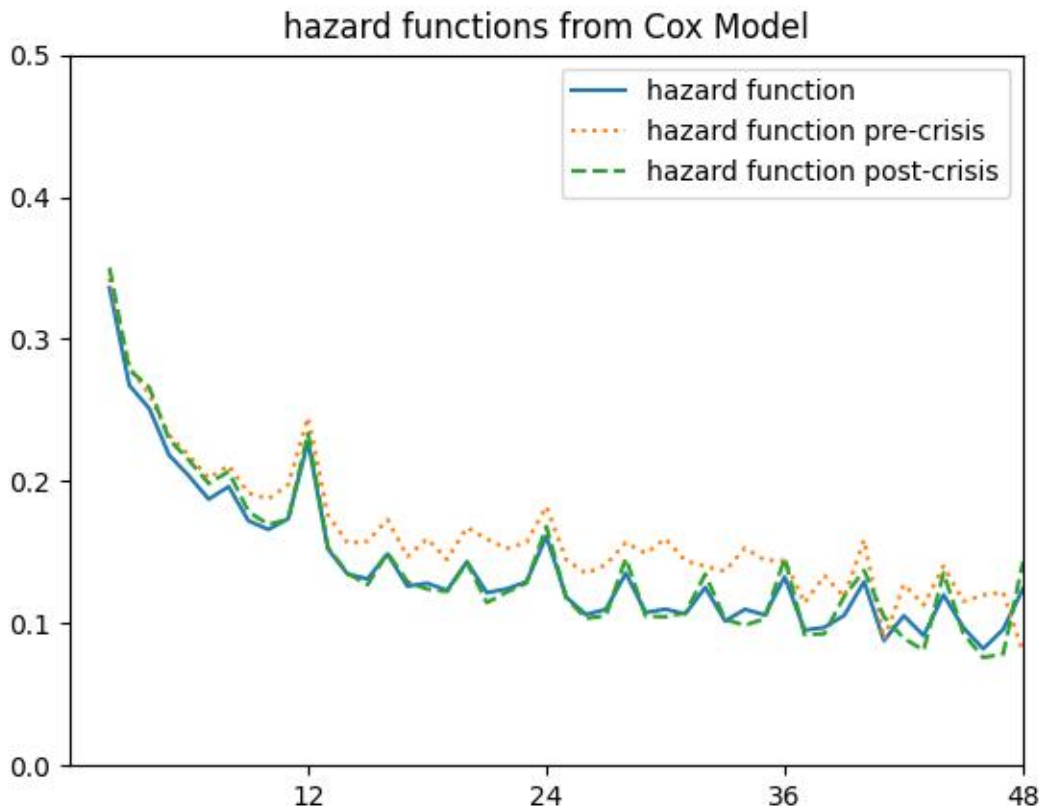


Figure 2-9 Hazard Functions from Cox Model

2.3.2 Goods vs Services Sector

Here we compare the results from the Cox model between goods and services sectors. Most of the regional dummies are significant in both sectors. Less significant monthly dummies are found in the post-crisis period.

For independent shops, they contribute to less risks in the goods sector and more risks in the services sector. Both zero-ending and nine-ending price quotes contribute to increased risks in the goods sector and decreased risks in the services sector. In the services sector, (-, -) spells are shorter than (-, +) spells while we can see the opposite result in the goods sector.

Wage contributes to increased risks in both sectors, and bigger effects are found in the goods sector. Prices of crude oil contribute to increased risks initially, then we observe opposite results after period 8 in the goods sector, and this change can be observed 2 periods earlier in the services sector. Consumer trends seem to play a more important role in the pre-crisis period as there's only one insignificant expenditure share which is alcoholic expenditure in the goods services while there are three insignificant expenditure shares in the services sector, and these are alcoholic, non-energy goods, and recreational/personal services expenditures.

For the goods sector, regional variations are more significant in the post-crisis period, and monthly effects don't seem to matter too much in both sample periods. Nine-ending price quotes contribute to increased risks in the pre-crisis period while we can find the opposite result in the post-crisis period. Increases in wage reduce the risks of changing prices in the pre-crisis period while it raises the risks of changing prices after the financial crisis. Lagged inflation rates show increased risks before the financial crisis, and they show decreased risks after the financial crisis. Similar change can be found in the nominal interest rates. For sector specific inflations rates, non-energy goods have more significant effects after the crisis. We also found significant effects from inflation in the services sector on prices in the goods sector, but these effects are less significant for housing, and transport/travel services.

For the services sector, regional variations are not so significant as we observed in the goods sector, and monthly effects are not so significant either. Nine-ending, zero-ending price

quotes, and interest rates show increased risks before the crisis and decreased risks after the crisis. Oil prices show slightly decreased risks before the crisis and increased risks after the crisis. Lagged inflation rates show very big significant increased risked before the crisis. Inflation rates in the goods sector especially non-alcoholic/food and alcoholic beverages also have significant impact on prices in the services sector in the pre-crisis period. For both goods and services sectors, prices are more rigid after the crisis given the hazard functions in fig 2-4, but the hazard function from the services sectors shows a 3-month spike pattern while the hazard function from the goods sector only show a weakly 4-month spike pattern, and these spikes indicates there is seasonality in the data.

Table 2-10 Log-rank Test for Goods and Services Sectors Cox Baseline

pre- and post-crisis survival difference test	Test Statistic	P-value
goods sector	14.65***	<0.005
services sector	26.54***	<0.005

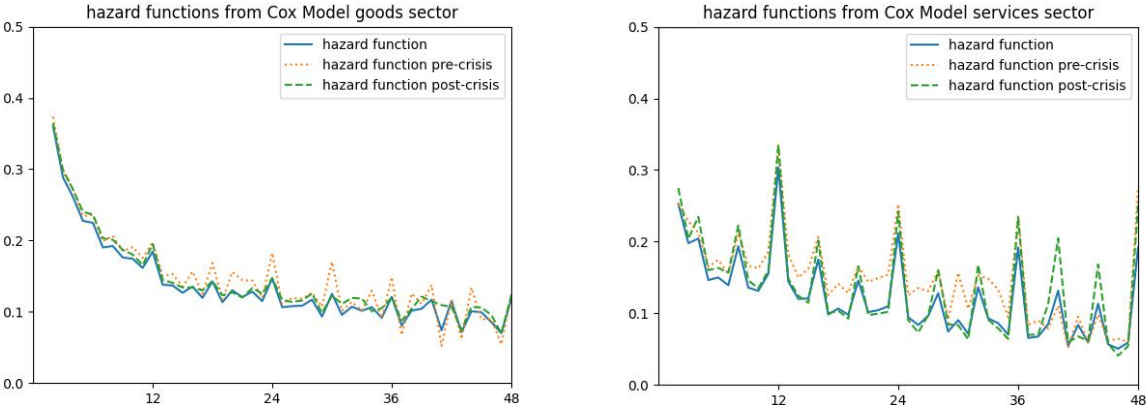


Figure 2-4 Hazard Functions from Cox Model for Goods and Services Sectors

2.3.3 By each sector

In this section, the data is divided into 9 subsamples according to which sector a price quote belongs to. All log-rank test suggest there is significant survival difference between the pre- and post-crisis period in all sectors. For alcoholic beverages, tobacco, and narcotics, not much regional variations and monthly effects were found in the results. All these micro-covariates show significant effects on the hazard rates. The largest effect can be found in market share which contributes a great deal of price flexibility when it increases. Changes in oil prices not only have significant effects in the current period, but also in most lagged terms. We can see that changes in oil prices 12 months ago still have significant positive effects on price rigidity. For inflation rates, we found significant reduced risks in t-1, t-6, t-7 and increased risks in t-11. Almost all interest rates, both current and lagged terms, have significant effects on the hazard rates. For sector specific inflation rates, changes in inflation rates in alcoholic beverages/tobacco/narcotics, food and non-alcoholic beverages, energy, communication services, and recreational/personal care services play an important role in the price setting process. Shares of expenditure in all sectors are important factors as well. We found increased risks in alcoholic beverages, energy goods, housing services, and transport/travel services expenditures, and decreased risks in non-energy goods, communication services, recreational/personal services, and miscellaneous services expenditures. There are more regional variations and consumer trends have become less important after the crisis.

Table 2-11 Log-rank Test for Alcoholic Beverages, Tobacco, and Narcotics Cox Baseline

pre- and post-crisis survival difference test	Test Statistic	P-value
alcoholic beverages, tobacco, and narcotics	34.26***	<0.005

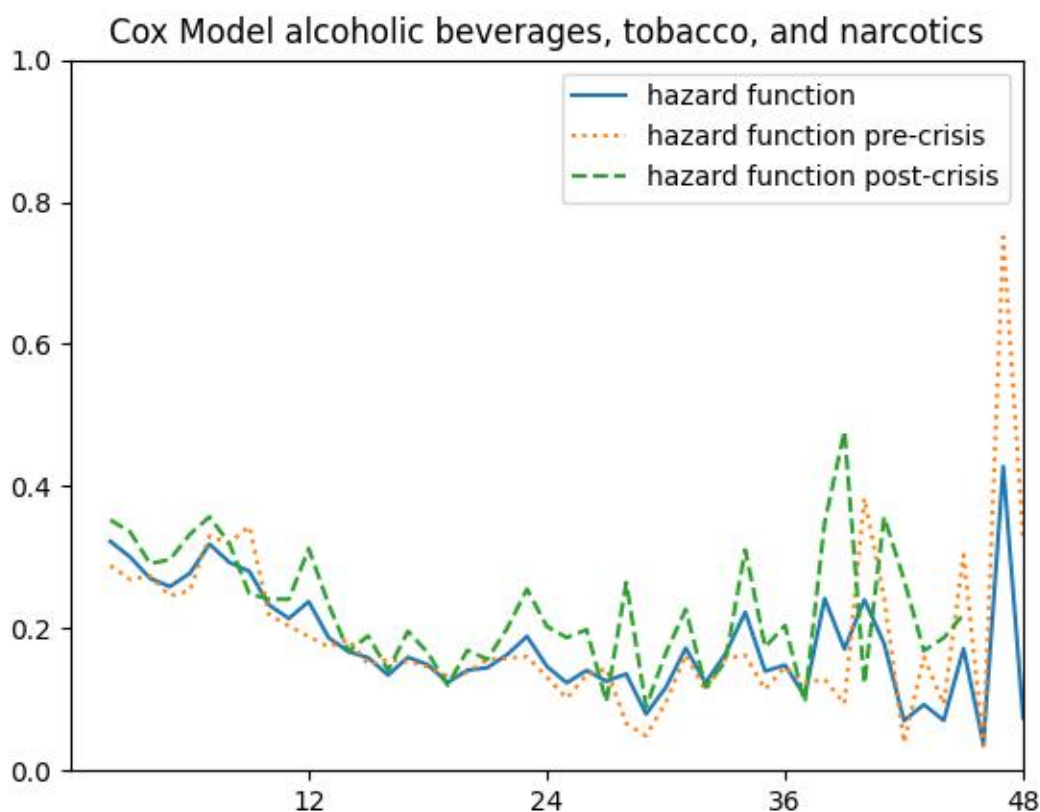


Figure 2-5 Hazard Functions from Cox Model for Alcoholic Beverages, Tobacco, and Narcotics

For food and non-alcoholic beverages, the regional hazard rates are significantly different to the ones in London. Most of these micro and macro covariates have significant effects on the hazard rates, and one exception is the CPI inflation rates in the non-energy goods sector. The aggregate inflation rates have the biggest impact on the hazard rates after about 10 to 11 periods. For sector specific inflation rates, we can see a lot of peak points from the hazard ratios after about 3 to 5 periods, for example inflation rates in food and non-alcoholic beverages, housing services, transport/travel services, communication services, and recreational/personal services sectors. For the rest sectors, changes in inflation rates take longer to reach maximum impact

except for miscellaneous services which have the biggest hazard ratio in t-1. Nominal interest rates in the current period t have no significant effects on hazard rates before the crisis while the opposite result can be found after the crisis. Consumer trends and inflation in energy goods have become less important after the crisis while inflation rates in a lot of services sectors have become more important.

Table 2-12 Log-rank Test For Non-Alcoholic Beverages and Food

pre- and post-crisis survival difference test	Test Statistic	P-value
non-alcoholic beverages and food	15.98***	<0.005

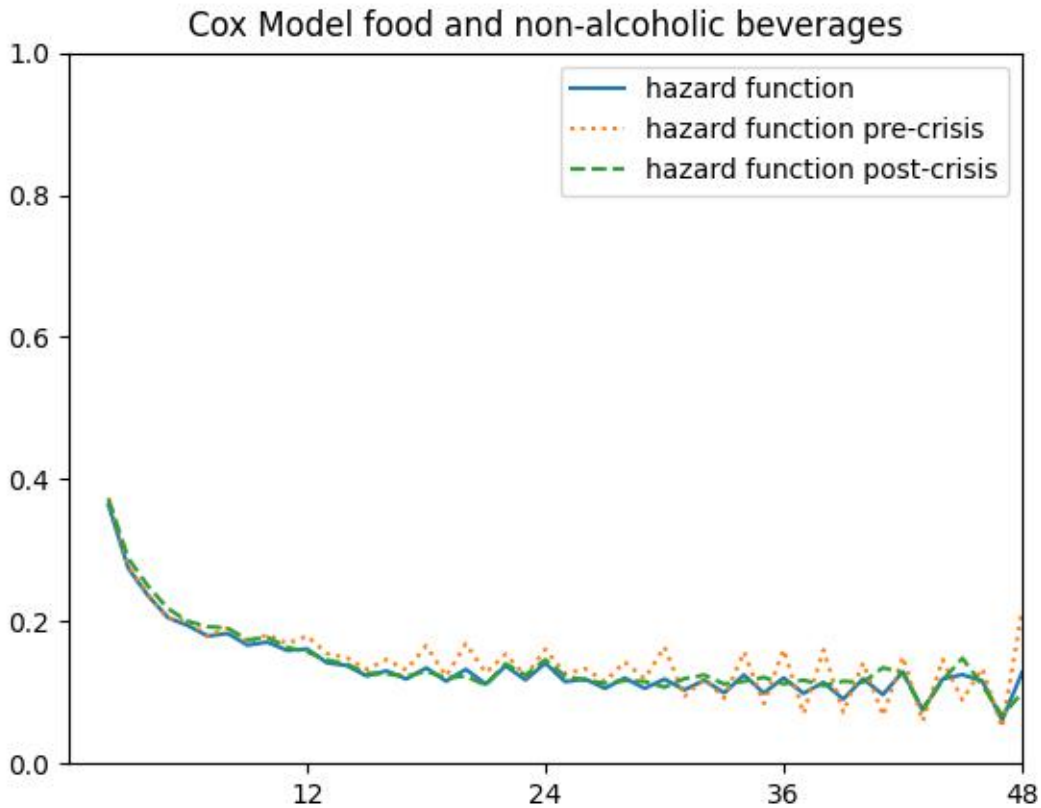


Figure 2-6 Hazard Functions from Cox Model for Food and Non-alcoholic Beverages and Food

For energy goods, most of these micro and macro covariates are not significant. Wage rates, being an independent supplier, and market share still have significant effects on raising the hazard rates. Inflation rates in the crude oil prices also significantly raise the hazard rates in prices of energy goods, and changes in oil prices can take effect very quickly as you can see you that the coefficients are significant from time t to t-3. We can find some degree of regional differences and monthly effects before the crisis, but not so much after the crisis. Overall micro factors and crude oil prices seem to be more important in the price setting process for energy goods. Energy prices change more frequently than other prices as you can see from fig 2-7 very few spells can survive after about 40 months since they started.

Table 2-13 Log-rank Test for Energy Goods

pre- and post-crisis survival difference test	Test Statistic	P-value
energy goods	32.48***	<0.005

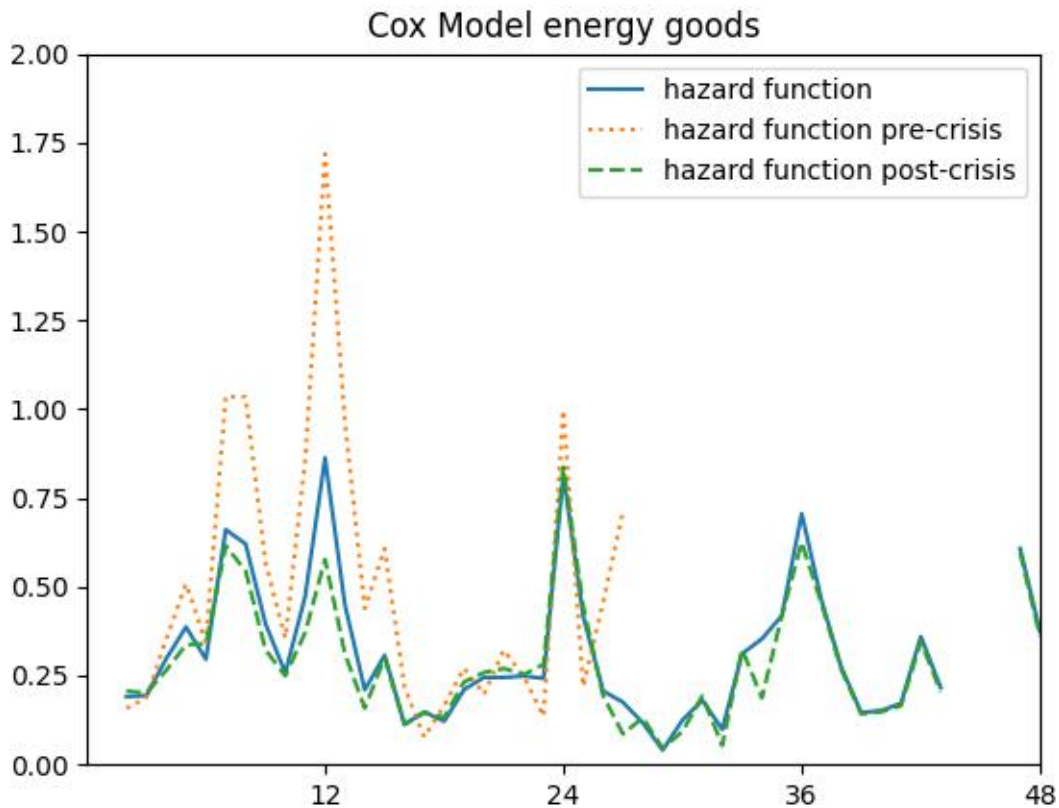


Figure 2-7 Hazard Functions from Cox Model for Energy Goods

For non-energy goods, most coefficients and hazard ratios are significant even for regional and monthly dummies. Inflation rates at the aggregate level and in non-energy goods, housing services, miscellaneous services need 2 to 3 periods to be effective while other macro shocks can take effects sooner. One interesting finding is that for consumer trends, shares of expenditures in most goods sectors have no significant effects on the hazard rates while significant effects can be found in most services sectors. After the crisis, crude oil prices, aggregate inflation rates, and consumer trends have become significantly less important in the price setting process.

Table 2-14 Log-rank Test for Non-Energy Goods

pre- and post-crisis survival difference test	Test Statistic	P-value
non-energy goods	24.51***	<0.005

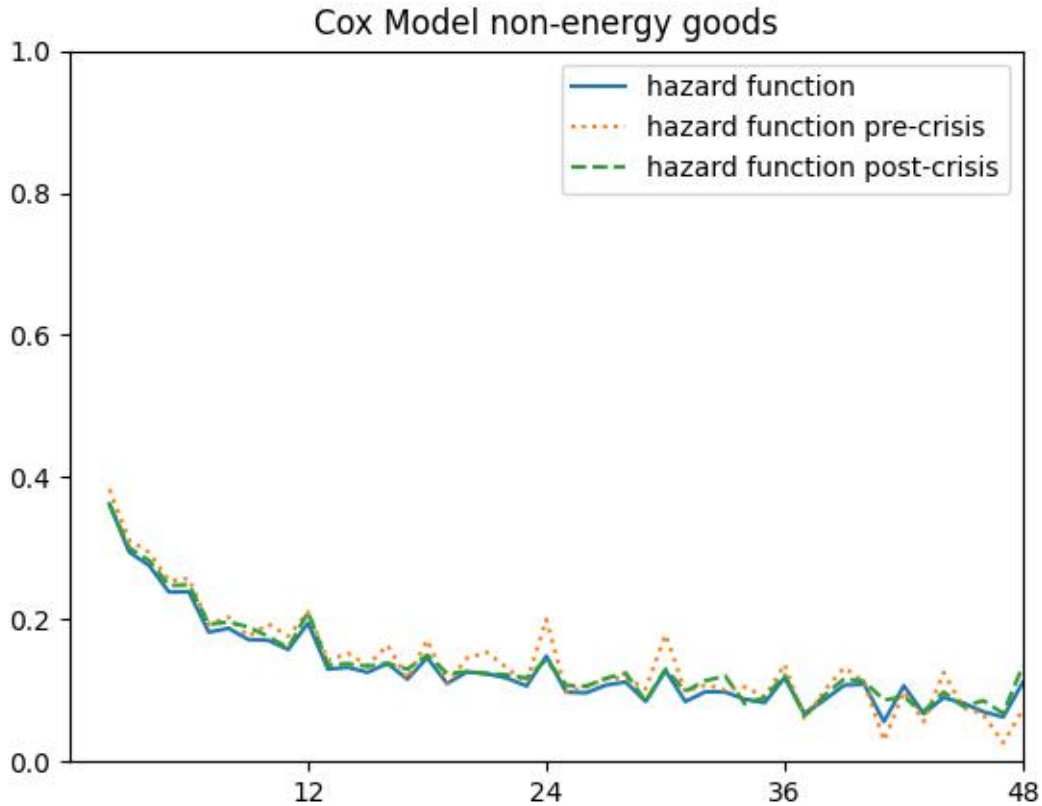


Figure 2-8 Hazard Functions from Cox Model for Non-Energy Goods

For housing services, regional differences are significant while no significant monthly effects are found. Price differences for same services are very common to find in the services sector, for example the price of getting a haircut can be significantly different in two regions as the services you receive, unlike a pack of bacon or other goods, are different from different barbers. Most of the macro covariates take about 2 to 4 periods to be effective except for aggregate inflation which has immediate effect on the hazard rates then quickly dies out after

about 4 periods. For sector specific inflation rates, inflation in the goods sectors and transport/travel services sector are not so important. Macro factors and consumer trends are less important in the post-crisis period.

Table 2-15 Log-rank Test for Housing Services

pre- and post-crisis survival difference test	Test Statistic	P-value
housing services	14.52***	<0.005

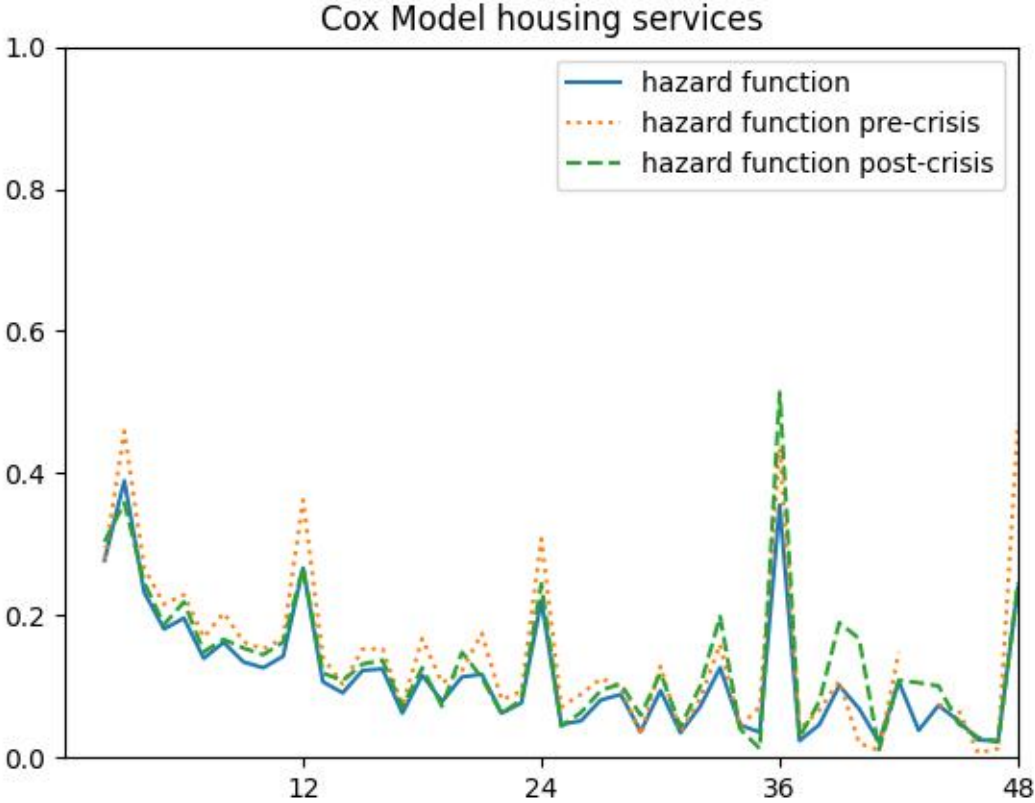


Figure 2-9 Hazard Functions from Cox Model for Housing Services

For transport/travel services, regional dummies and most of the micro factors are significant. Aggregate and non-energy goods inflation rates are not significant, but sector specific inflation rates do have significant impact on hazard rates. Regional differences and

macro factors have become less important after the crisis, but wage and micro factors still significantly affect the hazard rates. The hazard functions for transport/ services sector also show a 3-month spike pattern which means that a lot of prices are being reset for every 3 month.

Table 2-16 Log-rank Test for Transport/Travel Services

pre- and post-crisis survival difference test	Test Statistic	P-value
transport/travel services	12.26***	<0.005

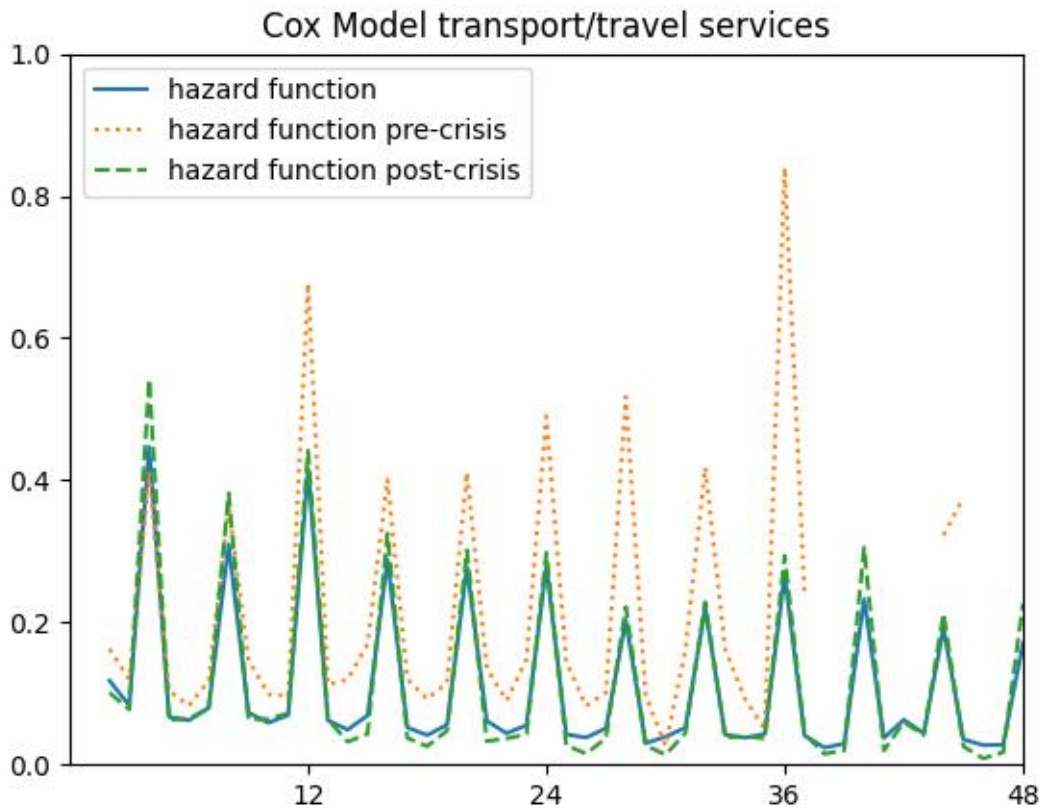


Figure 2-10 Hazard Functions from Cox Model for Transport/Travel Services

For communication services, we found no evidence of regional differences and monthly effects in these prices. Oil prices only affect the hazard rates after changes have been made about 6 to 7 periods while we can observe these effects sooner from changes in aggregate inflation and

interest rates. Inflation in the previous period can hugely increase the hazard rates as you can see from the very big hazard ratio in the results. For inflation in food/non-alcoholic beverages, alcoholic beverages, and miscellaneous services, significant effects on hazard rates can be found after 2 to 4 periods while you can find significant changes sooner in other sectors. For consumer trends, increases in expenditure share in housing services can contribute to higher hazard rates while increases in expenditure share in transport/travel services contribute to lower hazard rates. Micro factors have always been important in the price setting process for prices in the communication services sector, but macro factors have become more important after the crisis. Consumer trends have no significant impact on the hazard rates in the post-crisis period. Prices in the communication services sector also change very frequently, and they seem to change more frequently than energy prices as indicated by the hazard functions in fig 2-11. The majority of price spells cannot last longer than 29 months.

Table 2-17 Log-rank Test for Communication Services

pre- and post-crisis survival difference test	Test Statistic	P-value
communication services	13.64***	<0.005

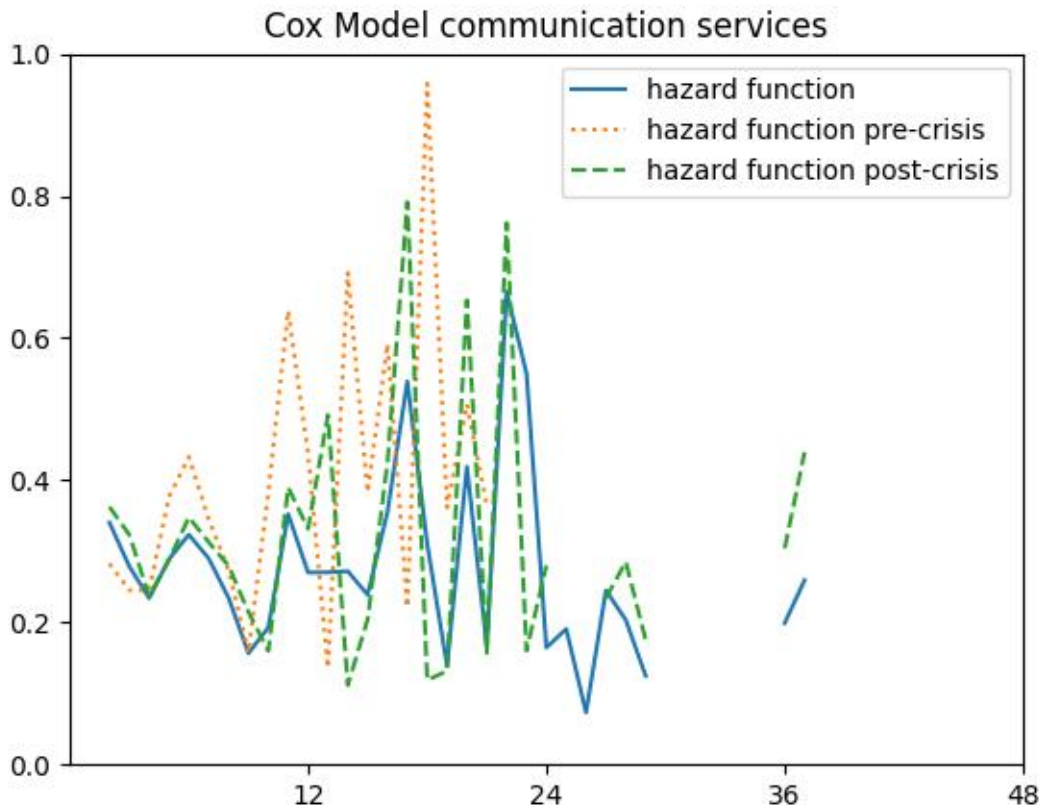


Figure 2-11 Hazard Functions from Cox Model for Communication Services

For recreational/personal services, lots of regional dummies and micro factors are significant. For macro covariates, unlike the other sectors which require 3 to 5 periods to see some significant effects they seem to have more immediate effects on the hazard rates. Consumer trends also significantly affect the hazard rates, and changes in the expenditure shares in the services sector are more important in the price setting process. Monthly effects can be found after the crisis and consumer trends have become irrelevant in the price setting process in the post-crisis period.

Table 2-18 Log-rank Test for Recreational/Personal Services

pre- and post-crisis survival difference test	Test Statistic	P-value
recreational/personal services	14.36***	<0.005

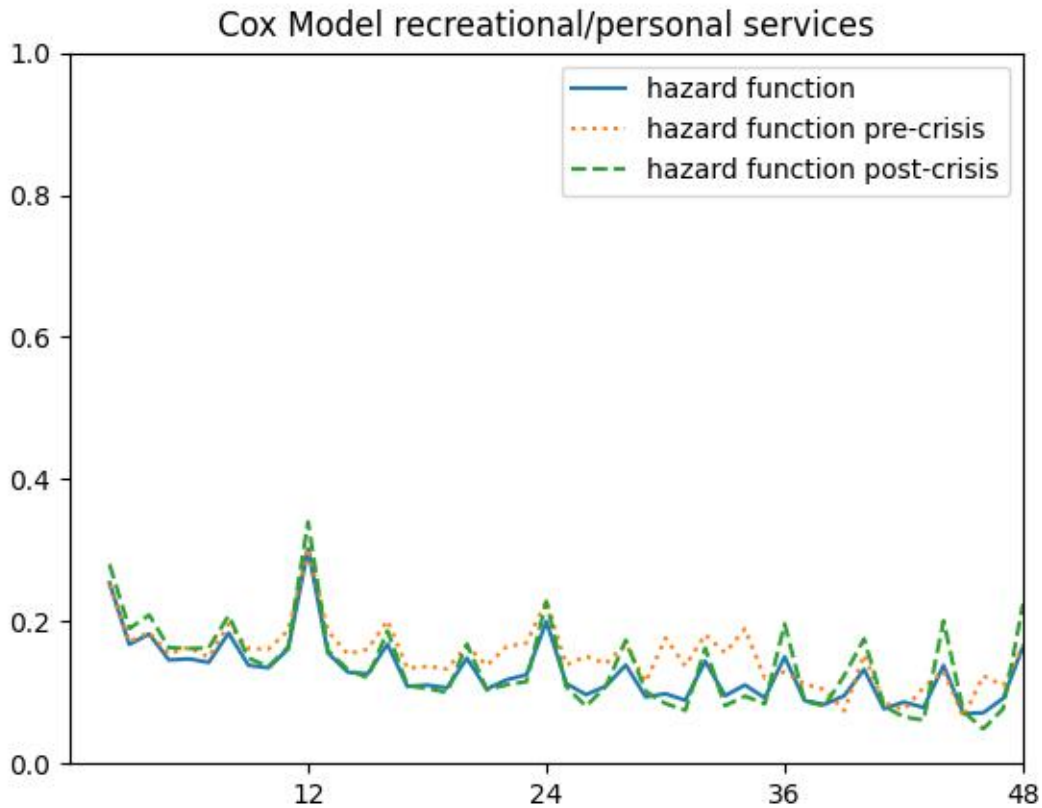


Figure 2-12 Hazard Functions from Cox Model for Recreational/Personal Services

For miscellaneous services most covariates have significant effects on the hazard rates except for monthly dummies. Most macro factors need 2 to 3 periods to have significant effects on the hazard rates. For inflation in the non-energy goods sector, we can that it significantly contributes to increased risks of changing prices in period t-5, and this effect is big as suggested by the hazard ratio prices are more than twice likely to change 5 months after an increase in price levels. Consumer trends within the services sector all have significant negative effects on the

hazard rates except for housing services which show a hazard ratio that's greater than that indicates higher hazard rates. Changes in aggregate inflation and sector specific inflation take more time to be effective after the crisis, and consumer trends have become less important in the post-crisis period.

Table 2-19 Log-rank Test for Miscellaneous Services

pre- and post-crisis survival difference test	Test Statistic	P-value
miscellaneous services	13.24***	<0.005

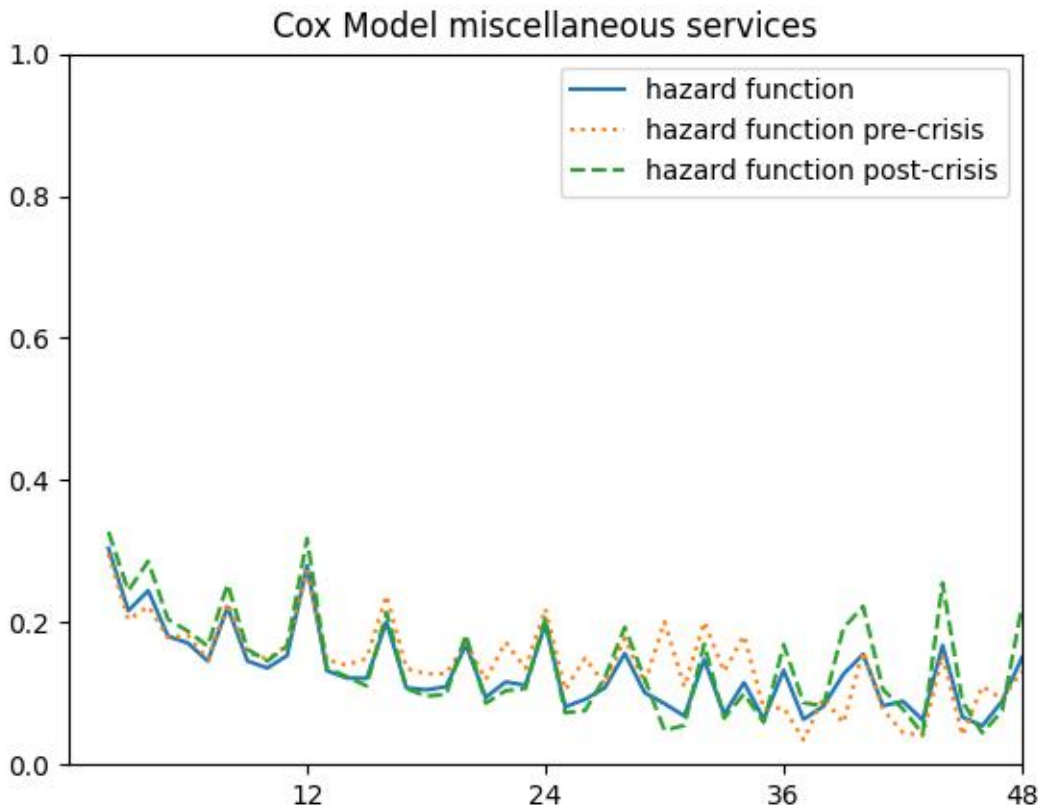


Figure 2-13 Hazard Functions from Cox Model for Miscellaneous Services

2.4 Concluding Remarks

In this chapter, we estimated the Cox proportional hazard model to find the determinants of duration of price spells. I found strong monthly and regional effects in the model, and regional effects are stronger in the goods sector. This result contradicts some findings from the non-parametric analysis in chapter 1, because no evidence of heterogeneity among the 12 regions in the UK was found previously. In Zhou and Dixon (2018) they also used the Cox model on a similar dataset, but they only found significant monthly effect not regional effect. In here both monthly and regional dummies are significant. Strong heterogeneity among sectors can be found in the results, and this is the same finding as discussed in chapter 1. Micro and macro factors all have significant effects on nominal rigidity. For macro factors, we included lagged terms up to 12 months, and we found that these macro factors need 3 to 4 periods to have some significant effects on the duration of price spells. In the previous studies, people only included inflation with 1 period lag and concluded with inflation is backward looking. From the baseline hazard functions, the hazard function from the pre-crisis period is above the hazard function from the post-crisis period in most cases, and this suggests that prices have become more rigid since the 2008 great financial crisis. Proportional hazard assumption was tested using the method developed by Grambsch and Therneau (1994), and not all covariates passed the test. In fact, some of the extreme values I got from the Cox regressions could be the result of violating the proportional hazard assumption. For future studies, the Accelerated Failure Time (AFT) model and the censored quantile regressions will be used to compare the results from what I got here as these models don't require the proportional hazard assumption.

Chapter 3 Size of Price Changes

3.1 Introduction

In the previous chapters, I used frequency and price changes to study price rigidity and did some duration analysis using survival analysis and the cross sectional method. But, besides the frequency of price changes, the size of price changes is also very important in the price setting process. All these firms try to set their prices at the level that they can make the most profits, and there are some adjustment costs to change prices. So, if they set their prices very close to ideal level previously, then they wouldn't have to worry about resetting them in the current period which means that they don't have to change prices very frequently in this case. In this chapter I will explore the determinants of size of the price changes. Inflation is definitely an important factor that determines size of price changes as mentioned by Klenow and Kryvtsov (2008). Later, Gagnon (2009) discovered that size of price changes is highly correlated with inflation. In a lot of studies that involve CPI/PPI micro price quotes data, Bunn and Ellis (2009, 2012) found that the number of small price changes was very big. Alvarez and Lippi (2014) found that the size of price changes is an important factor of monetary shocks using US micro data in a menu-cost model setting. There are other studies focusing on the impact of the 2008 financial crisis, for example Chakraborty, Dobson, and Seaton (2015) found after the crisis, the general price level has gone up, as well as the number of small price decreases using UK micro data. Another study by Berardi et al. (2015) found that size of price changes increased a little bit after the crisis.

3.2 Data

Here we use UK CPI micro price quotes data to analyze the size of price changes. There are more price increases than price decreases according to the following table. The proportion of

price increase is 53.26% which is about 7% higher than the proportion of price decreases. After removing sales, the difference becomes 13%, which is even bigger. Size of price changes is defined as the absolute value of percentage change in prices. The reason is because the price for 6 eggs is only about £2.99 while the price for a one-night stay at a hotel could cost you more than 100 pounds or higher. If we simply take the average of these numbers, it would not be a good measure to reflect the economy as a whole. The average price increase is about 47.52% while the median price increase is 14.46%, much smaller than the average value. The average price decrease is only 20.09% more than 50% less compared to price increases, and this shows us that firms are more reluctant to reduce their prices. The distribution of price increases is much more dispersed according to the standard deviations in the table.

Table 3-1 Basic Stats of Size of Price Changes

Sales included?	full sample	
	yes	no
average number of price increases	11,424.94	9,259.95
average price increases(%)	47.52	49.55
median price increase(%)	14.56	11.14
standard deviation of price increases	1,079.61	1,149.72
average number of price decreases	10,027.02	7,014.25
average price decreases(%)	-20.09	-19.03
median price decreases(%)	-16.13	-13.83
standard deviation of price decreases	16.32	17.38
average number of price changes	21,452.87	16,274.20
average price changes(%)	33.93	35.73
median price changes(%)	15.28	12.29
standard deviation of price changes	758.93	846.98
proportion of price increases(%)	53.26	56.90
proportion of price decreases(%)	46.74	43.10

Next, we compare these statistics before and after the 2008 financial crisis. The average price increases per month decreased from 53.15% to 36.85% after the crisis, but the size for price

decreases increased about 5% after the crisis. Although the average price changes have decreased, the median price changes have increased after the crisis, and the standard deviations are much smaller after the crisis. The reason for this is because firms that used to have small size adjustments now have increased the size for price adjustments, while other firms that used to have large size adjustments now have smaller price adjustments. The results are that distribution of size of price changes are much less dispersed in the post-crisis period. Before the crisis, the proportion of price increases was much higher than the proportion of price decreases, about 11% higher. After the crisis, the proportions for price increases and decreases are about the same.

Table 3-2 Basic Stats of Size of Price Changes pre- and post-crisis

Sales included?	pre-crisis		post-crisis	
	yes	no	yes	no
average number of price increases	11,071.26	9,666.00	12,094.80	8,490.92
average price increases(%)	53.15	58.55	36.85	32.50
median price increase(%)	12.31	10.43	18.82	12.47
standard deviation of price increases	1,596.33	1,699.69	100.98	108.13
average number of price decreases	8,998.02	7,024.82	11,975.89	6,994.24
average price decreases(%)	-18.15	-17.44	-23.77	-22.03
median price decreases(%)	-14.17	-12.49	-19.84	-16.36
standard deviation of price decreases	15.58	16.37	17.70	19.29
average number of price changes	20,070.65	16,690.82	24,070.70	15,485.17
average price changes(%)	35.85	39.95	30.31	27.74
median price changes(%)	13.15	11.25	19.30	14.25
standard deviation of price changes	1,121.27	1,251.69	72.68	80.48
proportion of price increases(%)	55.16	57.91	50.25	54.83
proportion of price decreases(%)	44.83	42.09	49.75	45.17

Some interesting results can be found if we plot the proportions of price changes on graphs. The proportions of price increases were much higher than proportions of price decreases before 1996. Between 1996 and 2009, the proportions of these two types of price changes were very close to each other. After the 2008 financial crisis, these two lines started to diverge on the

graph with more price increases until 2013. Between 2013 and March 2018, the proportions of price decreases were greater than the proportions of price increases. After getting rid of sales in the data, we can see that proportions of price increases were greater than proportions of price decreases before 2013.

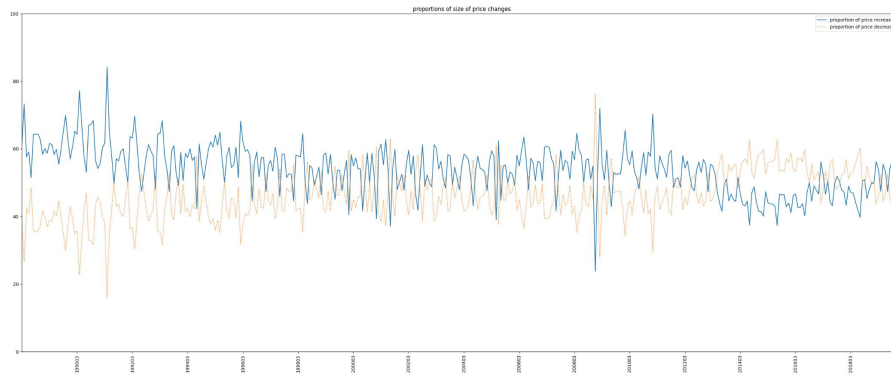


Figure 3-1 Proportions of Size of Price Changes with Sales

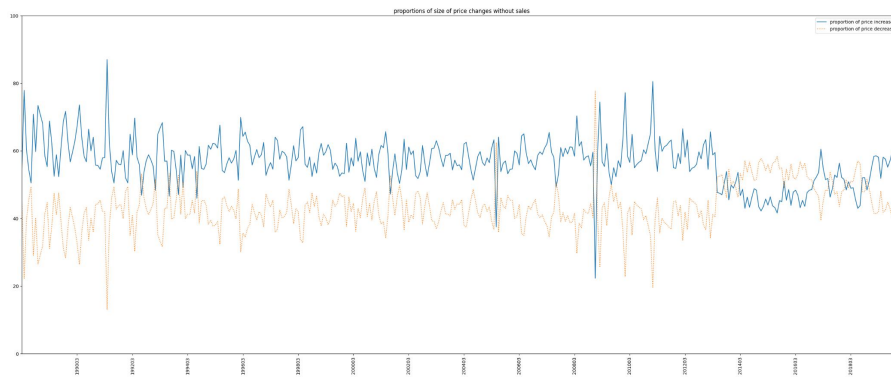


Figure 3-2 Proportions of Size of Price Changes without Sales

3.3 Model

3.3.1 Fixed effect model

Our micro CPI price quote data has an unbalanced panel structure because there are new products entering our sample while some existing products leaving our sample in each month.

The model we are trying to estimate is:

$$size_{it} = \beta_0 + \beta_1 x_{it1} + \dots + \beta_k x_{itk} + \alpha_i + u_{it} \quad (3.1)$$

In the above equation, the letter i represents each product, and the letter t represents time. The letter β_1 to β_k are the values that we are trying to estimate. The letter α_i represents unobserved individual heterogeneity in the data, it can affect our dependent variable $size_{it}$ which represents the percentage change of size of price changes. The letter u_{it} represents the error term which includes all factors that affect our dependent variable but not included in our model. Let's denote p_{it} as the price for product i at time t . Then, the size of price changes can be written as:

$$size_{it} = \left| \frac{p_{it} - p_{i(t-1)}}{p_{i(t-1)}} \right| \quad (3.2)$$

For macro covariates we include interest rates, CPI inflation rates, crude oil prices, PPI input prices i.e., prices of materials purchased by producers in the production process, PPI output prices i.e., factory gate prices sold to retailers, and their lagged terms up to 12 months. Market share is also included in the model, and all these macro covariates are in percentage changes. For micro covariates, we include dummy variable to separate price increases and decreases (price decreases are left out), dummies for durable and semi-durable goods (non-durable goods are left out), price endings dummies (0 and 9), sales dummy, consumer trends which give us information

on share of consumer's expenditure in each sector, sector dummies (Alcoholic drinks sector is left out), monthly dummies (Jan is left out), and regional dummies (London is left out).

3.3.2 Random effect model

If we assume the unobserved effect α_i is uncorrelated with our independent variable, then the following equation becomes a random effect model:

$$size_{it} = \beta_0 + \beta_1 x_{it1} + \dots + \beta_k x_{itk} + \alpha_i + u_{it} \quad (3.3)$$

$$Cov(x_{itj}, \alpha_i) = 0, \quad t = 1, 2, \dots, T; j = 1, 2, \dots, k$$

3.4 Results

3.4.1 Full Sample

Only full sample results are shown here, and you can find all results from the panel regressions in Appendix 13. A lot of covariates appear to be insignificant for both fixed effect (FE) and random effect (RE) model. Since the dependent variable here is the absolute value of percentage change of size of price changes, we should use percentage point as the unit for the dependent variable when we interpret the results. A positive coefficient means increased size of price adjustment for including this specific covariate, vice versa. Interest rates only have significant effects on size of price changes after 4 to 5 periods and after about 11 periods for both FE and RE. The FE model suggests a negative relationship between lagged interest rates and size of price changes while the RE model suggests the opposite result. CPI inflation rates have more significant effects as the coefficients are bigger than the coefficients on PPI inflation rates. CPI inflation is more backward looking in the RE model as it has no significant effects on size of price changes in the first 3 months, but the effects from CPI inflation are more immediate in the FE model. For both FE and RE models, CPI inflation reduces the size of price changes according

to the negative coefficients in the result table. For PPI inflation, the FE model suggests a negative relationship between the PPI input prices inflation rates and size of price changes after 12 months since the shock took place. For PPI output prices inflation rates, the FE model suggests negative effects on size of price changes 8 months after the shock while the RE model shows some positive effects around the same time. Crude oil prices seem to be an important factor of size of price changes since most lagged oil prices have significant positive effects on the dependent variable according to both FE and RE models. The only difference here is that the crude oil prices are more backward looking in the RE model since we only observe significant effects 3 months after the shock while significant effects have already been shown for 2 months in the FE model. Market shares have significant positive effects in both FE and RE models, but the effects in the RE model are much bigger.

Table 3-3 Panel Regression Results Macro Covariates

Panel Regression Full Sample Results			
with sales		full sample	
No. of Obs: 8,194,995		FE	RE
	R	50.897	33.463
	R_1	-0.3846	-0.3831
	R_2	0.047	0.7771**
	R_3	0.6624	0.2162
	R_4	-1.2503***	-0.6952**
	R_5	0.168	0.5524
	R_6	-0.5235	-0.269
	R_7	0.4474	0.3979
	R_8	0.1724	0.215
	R_9	-0.2193	0.0154
	R_10	0.6312	0.4684
	R_11	-0.8548**	-0.539
	R_12	0.6244	0.6671**
	expenditure_Alcoholic	0.0466***	-0.0245*
	expenditure_Communication	-0.0707***	-0.02
	expenditure_Energy	0.0057*	-0.0021
	expenditure_Housing_services	0.045	0.0966**

expenditure_Miscellaneous_services	0.0025	-0.0084**
expenditure_Non_energy_goods	0.0053	0.0079*
expenditure_Recreational_personal_services	-0.0051	-0.0058
expenditure_Transport_travel_services	-0.0098	0.0005
inflation_1	-54.464***	-16.359
inflation_2	-41.148***	-6.4626
inflation_3	-42.415***	-15.459
inflation_4	17.695	23.525**
inflation_5	-50.245***	-29.725**
inflation_6	-18.362	-21.836**
inflation_7	-28.178**	-32.525***
inflation_8	-35.165***	-25.947**
inflation_9	5.3584	-3.8815
inflation_10	1.1254	-5.6195
inflation_11	-20.965	-1.2262
inflation_12	-14.624	-4.0165
market_share	2.0262***	24.598***
oil	-11.05	-38.961
oil_1	0.3466	-0.1142
oil_2	1.3818***	-0.0687
oil_3	1.1584***	-0.1563
oil_4	1.3805***	0.7759**
oil_5	0.9229**	-0.1082
oil_6	1.3708***	1.0477***
oil_7	0.2915	0.4124
oil_8	1.0595***	0.5306*
oil_9	0.2707	-0.1986
oil_10	-0.1677	0.1793
oil_11	1.1955***	0.8154***
oil_12	1.7347***	1.3475***
ppi_input	8.5222**	3.1474
ppi_input_1	-7.2551	-2.994
ppi_input_2	-1.9459	-3.2583
ppi_input_3	6.4646	4.0731
ppi_input_4	-0.6192	0.0124
ppi_input_5	-5.6135	1.244
ppi_input_6	-4.0952	-1.615
ppi_input_7	5.457	-0.8926
ppi_input_8	5.5684	4.0913
ppi_input_9	-1.3902	-2.7118
ppi_input_10	-2.7591	-2.0106
ppi_input_11	6.6653	5.4501
ppi_input_12	-5.3754*	-3.4627

ppi_output	-5.2454	2.8383
ppi_output_1	0.9463	-5.8749
ppi_output_2	2.2347	7.9368
ppi_output_3	-2.3794	-5.846
ppi_output_4	-5.1118	-6.5593
ppi_output_5	10.315	4.9175
ppi_output_6	-1.0616	-0.3665
ppi_output_7	5.8935	8.2972
ppi_output_8	-16.479*	-10.136
ppi_output_9	13.918	13.343*
ppi_output_10	-2.1034	-6.3381
ppi_output_11	-11.057	-9.1308
ppi_output_12	6.265	8.4179**

For micro covariates, price adjustments are bigger for durable goods compared to non-durable and semi-durable goods. Price adjustments are about 1.5 times bigger for price increases than price decreases. Prices that end with a 0 or 9 have bigger adjustments especially for zero-ending prices. All coefficients on consumer trends are pretty small, and the FE model suggests that goods prices play a more important role here while RE model suggests the opposite. For location dummies, most of them except South East have negative coefficients which mean that average prices are higher in the London area. For the RE model, there are no regional differences in terms of size of price changes. For monthly dummies, big price adjustments can be observed twice a year, once in the winter around February, and once before the summer around May. Moreover, we can see big price drops in Dec. and Feb. while prices tend to increase a lot in May right after the Spring sale each year in the UK. Sector dummies aren't so important in both FE and RE models.

Table 3-4 Panel Regressions Results Micro Covariates

Panel Regression Full Sample Results		
with sales	full sample	
No. of Obs: 8,194,995	FE	RE

dummy_D	52.65***	115.49***
dummy_SD	6.1525	-2.7826
dummy_increase	41.228***	47.075***
dummy_independent	-8.5157*	-1.1213
dummy_nine_ending	10.675*	30.925***
dummy_sales	-6.8872	21.694***
dummy_zero_ending	20.659***	36.003***
location_East_Anglia	-14.487	-47.122
location_East_Midlands	-20.069**	-20.135
location_NI	-11.152	-17.629
location_NW	-18.78**	-49.816
location_North	-27.13**	-57.301
location_SE	16.149**	47.645
location_SW	-22.363**	-52.603
location_Scotland	-15.478*	-33.314
location_Wales	-26.734**	-58.662
location_West_Midlands	-18.602**	-39.801
location_Yorks_Humber	-16.305*	-33.104
month_FEB	-46.931**	-35.37*
month_MAR	19.153	1.8565
month_APR	-5.7327	-31.478
month_MAY	51.135**	14.363
month_JUN	-13.099	-43.838**
month_JUL	37.757*	-16.978
month_AUG	34.448	-20.499
month_SEP	-7.1644	-13.702
month_OCT	17.622	25.09
month_NOV	0.9161	27.336
month_DEC	-58.157**	-8.6293

After dividing our data into two sub-samples according to the 2008 financial crisis, we can see that the results from the full sample are dominated by the data in the pre-crisis sample as they show similar results. In the post-crisis period, most of the covariates have significant effects on size of price changes, so here we will analyze the results we got from the post-crisis period. We can see big increased price adjustments around 35% starting 4 months after a CPI inflation shock given by the big positive coefficients here, and this number is smaller in the RE model.

Crude oil prices have bigger positive effects on the size of price changes in the FE model. PPI output prices have bigger effects than PPI input prices, and the biggest effect, which is about 4% in the FE model, is shown 6 months after the shock. We can find the biggest price changes for semi-durable goods, and smallest price changes for durable goods. Price increases are about 23% higher than price decreases. Independent shops also have higher price adjustments in terms of size. The size of price changes for zero-ending prices is about 7% higher than other prices given by the FE model. The coefficients on consumer trends, although they appear to be statistically significant, are too small to have any practical effects. The size of price changes is biggest in the London area, and smallest in Northern Ireland and Wales. The coefficients on monthly dummies are all positive, and it means that the percentage change of size of price changes is the smallest in the London area. The smallest average change in size of price changes is expected to be found in energy goods while the largest average change can be found in miscellaneous services prices. The reason is because there are many small price adjustments in energy goods. The FE and RE models give similar results, but the coefficients are smaller for the RE model. Similar results can also be found after removing sales.

3.4.2 By each sector

For alcoholic beverages, tobacco, and narcotics, only CPI inflation and market share have practically significant effects on size of price changes among these macro covariates. CPI inflation starts to make some real impacts 2 months after a shock. In the short-term increases in CPI inflation mainly cause the size of price adjustment to rise, and in the longer term we can see some opposite effects given the negative coefficient on 12-month lagged CPI inflation in the results. The size of price changes is expected to rise by 12% with 1% increase in the market share. All micro covariates are statistically significant, and most of the coefficients are positive.

Nine ending prices have 6% higher price adjustment in terms of size on average than other prices. Sales prices are expected to have much bigger price adjustments, but the coefficient here only suggests a 3.4% increase compared to regular prices. There are significant regional and monthly effects in the FE model, but most regional dummies are not significant in the RE model. In the post-crisis period, macro covariates, especially crude oil prices have slightly bigger effects on size of price changes.

For food and non-alcoholic beverages, increases in CPI inflation actually have negative effects on size of price changes which is the opposite to what we see for alcoholic drinks. Other macro covariates other than market share don't seem to be relevant in the model. The differences between price increases and decreases are much bigger for non-alcoholic beverages and food compared to alcoholic drinks as we can see that price increases are 10% bigger on average. Being a sales price also largely increases the size of price changes. Independent shops have smaller price adjustments. Most of the regional and monthly dummies are significant in the FE model, and these effects are less significant in the RE model. After the crisis, macro covariates monthly effects have more significant effects on size of price changes.

For energy goods, interest rates and crude oil prices in the current period have a big impact on size of price changes. The difference is increases in the interest rates can raise the size of price changes while increases in the crude oil prices have the opposite effect. CPI inflation is an important factor as always, and size of price changes rises by more than 150% 1 month after the shock, then it drops dramatically. Micro covariates don't seem to have a big impact here, but strong monthly effects can be found in the results. Monthly effects are not significant in the pre-crisis period. One month lagged CPI inflation has negative effect on size of price changes in the pre-crisis period while positive effect can be found after the crisis.

For non-energy goods, most macro covariates other than market share and crude oil prices have negative effects on size of price changes. Increases in CPI inflation can largely reduce the size of price changes, and the effects can be observed just 1 month after the shock in the FE model. In the RE model, CPI inflation is more backward looking as we won't find any significant effects until 4 months after the shock, and the effects on the size of price changes are positive. For interest rates, PPI output prices, significant effects can be observed around 10 months after the shock. A one unit increase in PPI input prices can significantly raise the size of price changes by about 20% in the FE model while PPI input prices seem to be irrelevant in the RE model. Crude oil prices can also raise the size of price changes, but it takes about 1 to 2 months to be effective, and it can last a very long time as we can find the coefficient on 12-month lagged crude oil price is still significant. The FE model suggests a significantly smaller size of price changes in the independent shops while the RE model suggests no difference found between the two types of shops. Being a sales price only has positive effects on size of price changes in the RE model. Macro factors, monthly effects and regional effects are more important in the post-crisis period.

For housing services, interest rates and crude oil prices have significant positive effects on size of price changes in the current period in the FE model, and these effects are slightly smaller in the RE model. Changes in CPI inflation rates need 2 to 3 months to have significant effects on size of price changes, and we can find negative effects in the FE model and positive effects in the RE model. Most micro covariates matter in both FE and RE models. Being a sales price can reduce the size of price changes in the FE model while the opposite is found in the RE model. Monthly and regional effects are stronger in the FE model. Macro covariates have

become important after the crisis. Monthly and regional effects have always been important in both subsample periods.

For transport or travel services, increases in the interest rates have some negative effects and are immediately followed by some positive effects on size of price changes 5 to 6 months after the shock. Increases in CPI inflation can significantly raise the size of price changes in the short run while reducing the size of price changes in the longer term. Increases in market share can also reduce the size of price changes. PPI input and output prices have negative effects on the size of price changes in the short run, and no long-term effects are found from both FE and RE models. Most micro covariates have significant effects on size of price changes but being a sales price doesn't make a difference here. Strong monthly and regional effects can be found here, but not many differences are found between the pre- and post-crisis periods.

For communication services, most of these macro covariates have positive effects on the size of price changes in the short term and negative effects are found in the longer term. PPI output inflation is more backward looking as it takes 3 months longer to have positive significant effects on size of price changes. For micro covariates, being an independent shop or sales price doesn't make any difference to the size of price changes. We can also find strong monthly effects but not many regional effects here. After dividing the data into pre- and post-crisis, we can only find monthly effects in the post-crisis period. CPI inflation and crude oil prices have negative effects on size of price changes before the crisis while these effects are positive in the pre-crisis period.

For recreational or personal services, interest rates and CPI inflation have negative effects on the size of price changes. We only find short term effects from CPI inflation. For crude oil prices, PPI input and output inflation, we find positive effects on size of price changes in the

short run and negative effects in the longer term in the FE model. PPI input and output inflation have negative effects on the size of price changes in the current period in the RE model. Most micro covariates have significant effects on size of price changes, and we find stronger monthly and regional effects in the FE model. Moreover, monthly effects have become stronger since the 2008 financial crisis.

For miscellaneous services, interest rates don't have any short-term effects on size of price changes, but they tend to reduce the size of price changes in the longer term. CPI inflation rates on the other hand are quite the opposite in that they only reduce the size of price changes in the short run. An increase in the crude oil price in the current period can significantly raise the size of price change. PPI input and output inflation tend to reduce the size of price changes in the short run. Monthly and regional effects are also found in both FE and RE models. Crude oil prices have stronger positive effects on the size of price changes after the crisis. For market share, it has a negative effect on the size of price changes in the pre-crisis period, and positive effect is found in the post-crisis period.

3.5 Goodness of Fit and Model Selection

Here we use R squared and F-Statistic to assess goodness of fit and for model selection. Overall, for the full sample these covariates cannot explain the variations in the size of price changes well given this very small R squared value that equals to 0.0002 in the FE model. But, after dividing our data into 9 sectors, we can see our model is a good model for some of the sectors. First of all, FE model is better than RE model given these bigger R squared and F-Statistic values. R squared can measure how much variations in the dependent variable can be explained by the covariates included in the model, and F-Statistic is used for testing joint

significance of our covariates. The simple standard here is the better model should have higher R squared and F-Statistic values.

Our model is good for Alcoholic beverages, tobacco, and narcotics, energy goods, and communications services sectors which consists mostly of prices for goods as more than 30-50% of the variations in the size of price changes can be explained by the covariates we include in the model. For food and non-alcoholic beverages, housing services, and transport or travel services, our model can still explain 10% up to 22% of the variations in size of price changes. In general, our model can explain changes in size of price changes for goods prices better than services prices. After getting rid of sales prices, the values of R squared, and F-Statistic become smaller.

Table 3-5 R Squared from Panel Regressions with Sales

R Squared with sales	full sample		pre-crisis		post-crisis	
	FE	RE	FE	RE	FE	RE
full sample	0.000	0.000	0.000	0.000	0.117	0.049
	2	1	2	2	0	7
Alcoholic beverages, tobacco, and narcotics	0.479	0.114	0.398	0.134	0.529	0.128
	1	0	5	5	8	9
Food and non-alcoholic beverages	0.160	0.032	0.083	0.020	0.293	0.108
	7	6	3	2	2	0
Energy goods	0.429	0.429	0.373	0.373	0.586	0.225
	8	6	9	2	4	5
Non-Energy goods	0.000	0.000	0.000	0.000	0.104	0.045
	2	2	3	3	1	2
Housing services		0.094	0.187	0.082	0.285	0.191
	0.225	0	9	8	9	1
Transport/Travel services	0.160	0.160	0.143	0.141	0.179	0.174
	4	2	3	5	0	0
Communication services	0.312	0.311	0.426	0.307	0.309	0.303
	8	4	0	2	3	5
Recreational/Personal services	0.067	0.031	0.042	0.013	0.111	0.062
	8	7	0	6	2	7
Miscellaneous services	0.092	0.063	0.068	0.068	0.126	0.126
	0	9	7	7	1	1

Table 3-6 R Squared from Panel Regressions without Sales

R Squared	full sample		pre-crisis		post-crisis	
	FE	RE	FE	RE	FE	RE
without sales						
full sample	0.000	0.000	0.000	0.000	0.135	0.094
Alcoholic beverages, tobacco, and narcotics	2	1	3	2	5	1
	0.408	0.109	0.338	0.103	0.457	0.135
	1	5	3	5	5	2
Food and non-alcoholic beverages	0.122	0.028	0.063	0.017	0.235	0.108
	4	4	5	1	9	3
Energy goods	0.427	0.427	0.368	0.367	0.585	0.226
	0	0	2	5	7	4
Non-Energy goods	0.000	0.000	0.000	0.000	0.136	0.136
	3	2	4	4	9	9
Housing services	0.212	0.099	0.171	0.089	0.276	0.276
	4	8	6	9	4	4
Transport/Travel services	0.159	0.155	0.142	0.141	0.178	0.178
	8	4	8	7	3	3
Communication services	0.298	0.297	0.419	0.311	0.303	0.301
	4	4	9	1	6	7
Recreational/Personal services	0.060	0.028	0.038	0.012	0.101	0.057
	3	3	7	8	1	6
Miscellaneous services	0.080		0.061	0.061	0.112	0.112
	2	0.074	9	9	6	6

Table 3-7 F-Statistics from Panel Regressions with Sales

F-Statistic	full sample		pre-crisis		post-crisis	
	FE	RE	FE	RE	FE	RE
with sales						
full sample	11.22	7.779	6.093	5.388	5151.	2035.
Alcoholic beverages, tobacco, and narcotics	6	2	5	2	0	3
	3838.	536.9	1031.	242.0	2912.	382.5
	4	6	9	3	6	0
Food and non-alcoholic beverages	3827.	672.8	769.3	174.7	4724.	1378.
	8	1	2	0	3	9
Energy goods	348.7	341.2	124.8	122.6	355.0	72.93
	9	6	3	5	6	1
Non-Energy goods	7.379	5.699	4.486	4.549	2223.	906.5
	9	6	8	2	9	4
Housing services	749.3	267.6	307.1	119.8	491.9	290.3
	1	1	0	3	1	0
Transport/Travel services	167.4	167.4	66.33	66.33	102.5	102.3
	6	6	1	1	0	0
Communication services	85.97	85.95	49.04	29.30	53.89	53.85
	6	6	3	2	8	4
Recreational/Personal services	1058.	476.2	270.2	84.80	1033.	551.7
	4	8	9	7	1	4

	534.3	359.8	149.2	149.2	462.3	462.3
Miscellaneous services	7	2	3	3	6	6

Table 3-8 F-Statistics from Panel Regressions without Sales

F-Statistic without sales	full sample		pre-crisis		post-crisis	
	FE	RE	FE	RE	FE	RE
	9.862	7.142	6.124	5.297	5087.	3370.
full sample	5	2	2	9	4	1
Alcoholic beverages, tobacco, and narcotics	2318.	413.4	668.8	150.9	1708.	316.6
	0	9	0	7	3	8
Food and non-alcoholic beverages	2395.	501.5	507.5	129.8	2951.	1161.
	7	5	3	9	6	0
Energy goods	341.9	341.9	119.1	111.5	355.1	73.51
	7	7	1	4	7	6
Non-Energy goods	6.832	5.275	4.401	4.296	2452.	2452.
	5	6	1	3	3	3
Housing services	497.3	204.4	184.1	87.81	356.3	356.3
	9	5	4	7	5	5
Transport/Travel services	166.4	165.1	65.94	65.91	101.8	101.8
	1	4	3	8	5	5
Communication services	64.17	64.15	37.23	23.23	42.32	42.31
	6	3	2	2	1	7
Recreational/Personal services	870.8	396.0	235.7	75.77	852.9	463.9
	3	7	4	4	5	0
Miscellaneous services	373.0	341.6	112.8	112.8	320.4	320.4
	4	2	9	9	4	4

The Hausman test is used for model selection between the FE and RE models. The null hypothesis is that the RE model is the preferred model. So, if a p-value is smaller than the chosen significance level, then it means that the FE model is the better model. From table 3-9, we can see that the Hausman tests suggest that the preferred models is the FE model in most cases. The energy goods sector is one exception. Recall from section 3.3 model specification, the RE model assumes the error term is uncorrelated with the explanatory variables, in other words, it assumes strict exogeneity, but results from the Hausman tests suggest differently. Therefore, the FE model which takes into account the individual unobserved heterogeneity is preferred in this study.

Table 3-9 P-values from Hausman Tests

Hausman Test p-values sales included?	full sample		pre-crisis		post-crisis	
	yes	no	yes	no	yes	no
full sample	0	0	0	0	0	0
Alcoholic beverages, tobacco, and narcotics	0	0	0	0	0	0
Food and non-alcoholic beverages	0	0	0	0	0	0
Energy goods	0	0.1254	0	0	0	0.2659
Non-Energy goods	0	0	0	0	0	0
Housing services	0	0	0	0	0	0
Transport/Travel services	0	0	0	0	0	0
Communication services	0	0	0	0	0	0
Recreational/Personal services	0	0	0	0	0	0
Miscellaneous services	0	0	0.1625	0	0	0

3.6 Concluding Remarks

I estimated the models using both FE and RE method in this chapter, and I found that firstly micro factors matter for changes in the size of price changes. Secondly, macro factors weren't making any significant effects on size of price changes before the crisis, but a lot of these macro factors show significant effects on size of price changes in the post-crisis period. CPI inflation is more important than PPI input and output inflation. I also found strong monthly and regional effects in some of the sectors. For regional effects, they are most important in the services sector excluding communication services. These models fit the goods prices better compared to services prices given the higher r squared values, the FE model is preferred to the RE model. We also found strong heterogeneity among these sectors, and it should be taken into consideration in future studies.

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Appendix

Appendix 1: Trajectories without Sales

	1%	25%	Median	75%	95%	Mean	Std.	Skewness	Kurtosis
Price Trajectory no sales	1	7	21	47	114	34.14	41.05	2.52	8.69

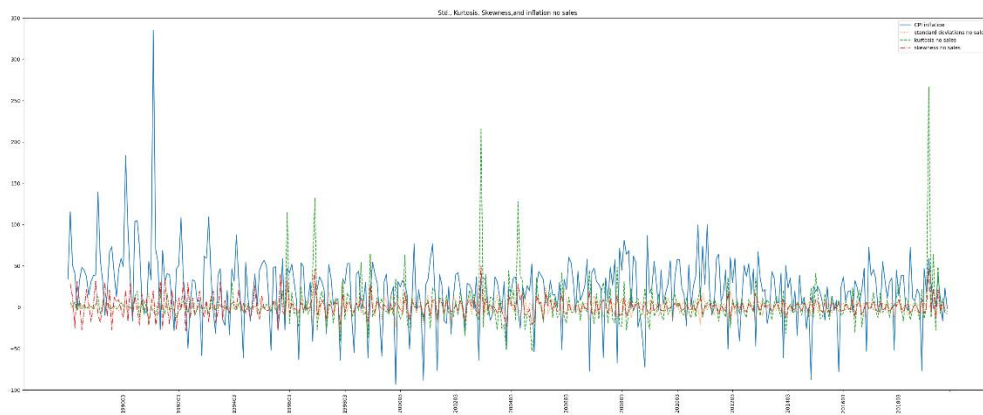
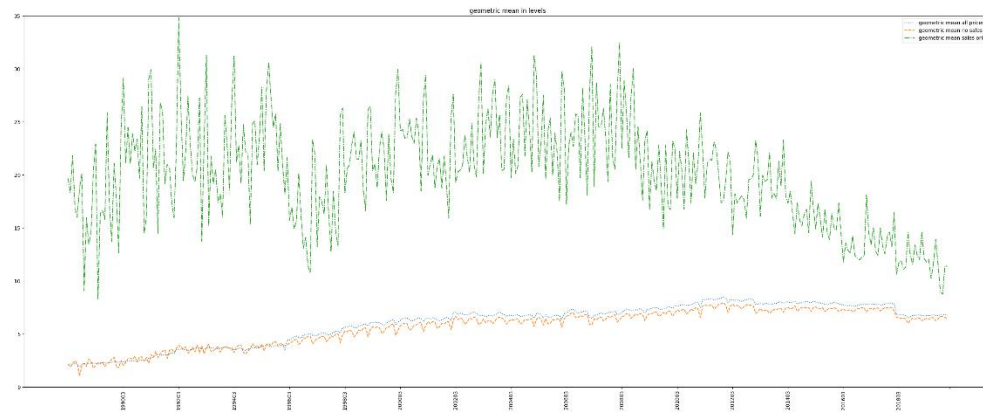
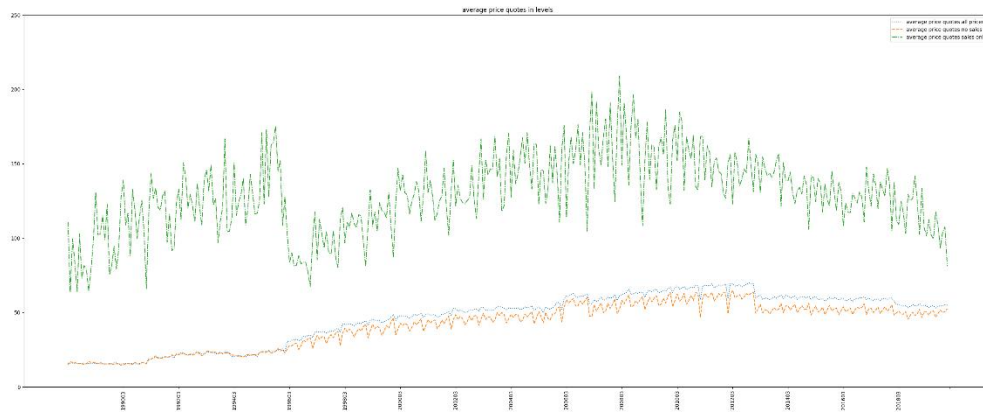
<i>no sales</i>	<i>Mean</i>	<i>Median</i>	<i>Std.</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>obs</i>
Multiple	36.74	22	43.88	2.44	7.86	736,964
Independent	29.40	18	34.70	2.43	8.77	364,006
Other						11,807
Total						1,112,777

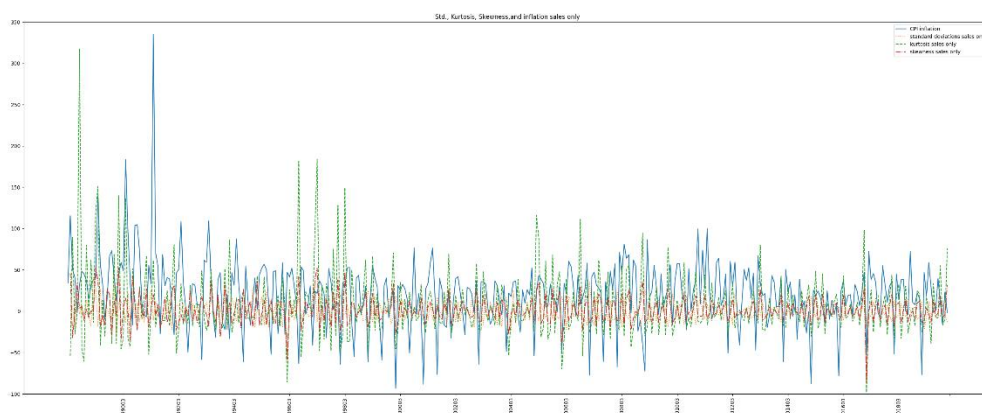
<i>no sales</i>	<i>Mean</i>	<i>Median</i>	<i>Std.</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>Obs</i>
Unknown	41.12	20	60.82	2.71	7.70	8,334
London	34.79	21	41.92	2.50	8.54	119,950
South East	34.07	21	40.94	2.45	8.35	157,162
South West	33.28	21	39.20	2.49	8.44	99,780
East Anglia	36.20	22	41.99	2.40	7.65	81,345
East Midlands	34.30	21	41.31	2.49	8.26	80,360
West Midlands	33.48	21	40.01	2.54	8.80	97,516
Yorkshire & Humber	33.34	21	39.52	2.48	8.55	94,444
North West	34.07	22	39.86	2.49	8.76	116,812
North	32.73	19	41.76	2.62	8.91	65,994
Wales	34.96	21	43.11	2.50	7.98	58,678
Scotland	34.61	21	42.44	2.63	9.66	90,528
Northern	33.15	20	38.04	2.32	7.63	41,874

Ireland	
Total	1,112,777

no sales	Mean	Median	Std.	Skewness	Kurtosis	Obs
Food and non-alcoholic beverages	36.19	22	45.83	2.69	8.94	268,292
Alcoholic beverages, tobacco, and narcotics	37.79	24	44.58	2.43	7.85	51,106
Clothing and footwear	30.79	18	36.81	2.40	8.63	209,233
Housing, water, electricity, gas and other fuels	36.20	21	45.99	2.66	10.13	34,045
Furnishings, household equipment and routine household maintenance	31.54	19	38.98	2.74	10.38	141,087
Health	43.04	29	50.56	2.36	6.64	15,121
Transport	35.38	24	38.84	2.15	6.51	48,704
Information and communication	26.40	17	27.09	2.25	7.30	4,250
Recreation, sport and culture	34.84	23	38.14	2.62	11.82	102,095
Education services						
Restaurants and accommodation services	39.69	28	41.44	1.86	5.01	127,114
Miscellaneous Goods and Services	39.33	24	45.15	2.42	8.31	71,591
Total						1,072,638

Appendix 2: Descriptive Statistics Graphs





Appendix 3: Proportion of Different Types of Spells Across Divisions, Regions, and Shop Types without Sales

no sales	<i>Full Sample</i>				<i>Goods Sector</i>				<i>Services Sector</i>			
proportion	(+,+)	(+,-)	(-,-)	(-,+)	(+,+)	(+,-)	(-,-)	(-,+)	(+,+)	(+,-)	(-,-)	(-,+)
full sample	40%	21%	17%	22%	36%	22%	18%	23%	55%	16%	10%	19%
pre-crisis	40%	21%	17%	22%	37%	22%	19%	23%	56%	15%	11%	18%
post-crisis	38%	22%	17%	23%	35%	23%	19%	24%	53%	17%	10%	20%

Divisions (without sales)	(+,+)	(+,-)	(-,-)	(-,+)
Food and non-alcoholic beverages	36.68%	21.15%	18.72%	23.45%
Alcoholic beverages, tobacco, and narcotics	59.27%	14.71%	8.30%	17.72%
Clothing and footwear	30.04%	25.25%	20.67%	24.05%
Housing, water, electricity, gas, and other fuels	42.30%	21.05%	10.98%	25.67%
Furnishings, household equipment and routine household maintenance	32.85%	23.54%	18.44%	25.16%
Health	49.09%	17.41%	13.18%	20.32%
Transport	38.84%	21.57%	15.30%	24.29%
Information and communication	23.75%	25.15%	26.83%	24.27%
Recreation, sport, and culture	30.75%	22.37%	23.59%	23.29%
Restaurants and accommodation services	66.64%	10.92%	6.50%	15.94%
Miscellaneous Goods and	41.99%	21.19%	14.94%	21.88%

Services

Divisions (without sales)	(+,+)		(+,-)		(-,-)		(-,+)	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Food and non-alcoholic beverages	36.86 %	34.64 %	20.91 %	22.46 %	19.06 %	19.19 %	23.17 %	23.70 %
Alcoholic beverages, tobacco, and narcotics	59.65 %	58.42 %	14.50 %	15.66 %	8.02% %	8.60% %	17.84 %	17.31 %
Clothing and footwear	30.90 %	29.03 %	25.70 %	24.94 %	20.39 %	20.94 %	23.01 %	25.09 %
Housing, water, electricity, gas, and other fuels	40.17 %	43.46 %	21.51 %	20.37 %	11.53 %	10.92 %	26.79 %	25.24 %
Furnishings, household equipment and routine household maintenance	31.46 %	34.71 %	23.80 %	23.59 %	20.13 %	16.01 %	24.62 %	25.69 %
Health	58.45 %	37.64 %	14.82 %	20.38 %	10.07 %	16.44 %	16.67 %	25.53 %
Transport	38.33 %	37.21 %	20.89 %	24.27 %	16.65 %	12.91 %	24.12 %	25.60 %
Information and communication	19.91 %	30.29 %	25.72 %	25.02 %	30.45 %	21.17 %	23.93 %	23.52 %
Recreation, sport, and culture	29.67 %	30.77 %	22.49 %	22.64 %	25.51 %	22.11 %	22.33 %	24.48 %
Restaurants and accommodation services	65.41 %	66.87 %	11.08 %	11.10 %	7.59% %	5.71% %	15.91 %	16.32 %
Miscellaneous Goods and Services	42.22 %	39.95 %	20.66 %	22.44 %	15.34 %	15.13 %	21.78 %	22.49 %

Region (without sales)	(+,+)	(+,-)	(-,-)	(-,+)
Unknown	29.76%	25.42%	19.04%	25.79%
London	38.82%	22.12%	17.04%	22.02%
South East	40.66%	20.77%	16.30%	22.27%

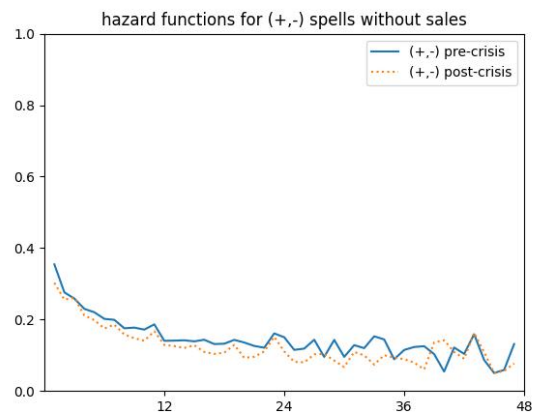
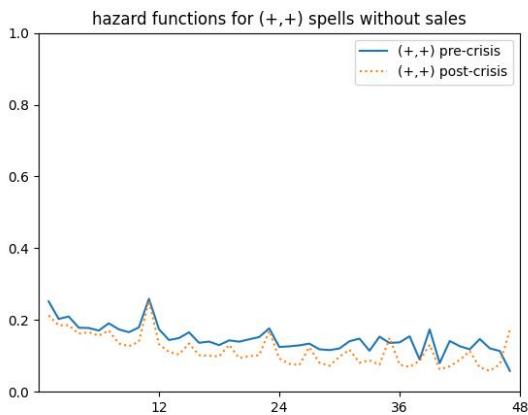
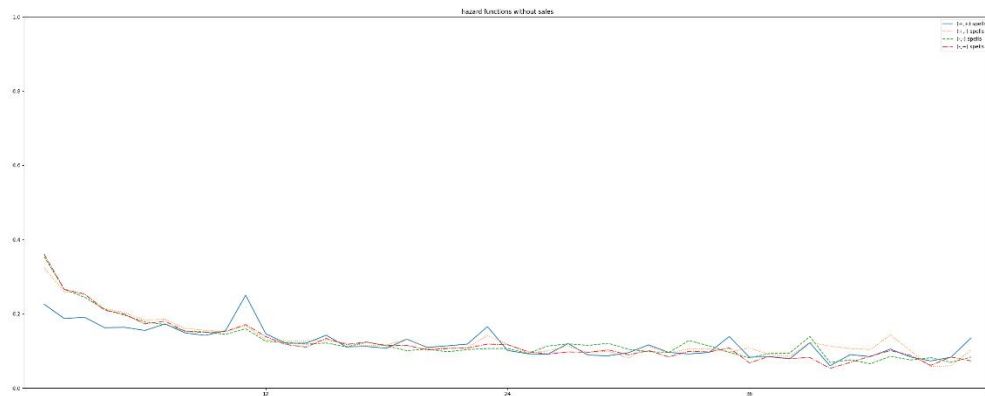
South West	41.12%	20.48%	16.21%	22.19%
East Anglia	40.57%	20.53%	16.62%	22.29%
East Midlands	40.30%	20.47%	17.02%	22.20%
West Midlands	39.91%	20.73%	16.85%	22.51%
Yorkshire & Humber	40.18%	20.69%	16.62%	22.51%
North West	40.12%	20.56%	16.79%	22.54%
North	38.73%	20.89%	17.39%	23.00%
Wales	39.09%	20.54%	17.50%	22.87%
Scotland	39.51%	20.89%	17.09%	22.51%
Northern Ireland	39.41%	21.02%	17.28%	22.28%

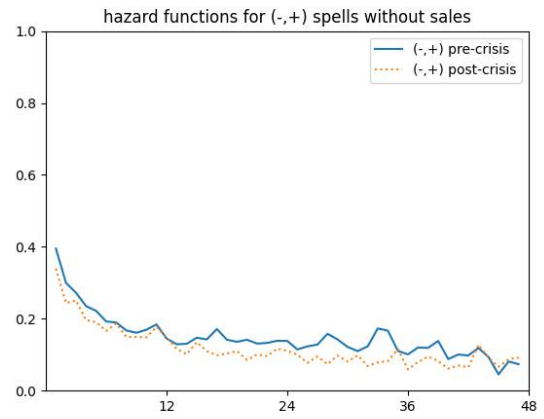
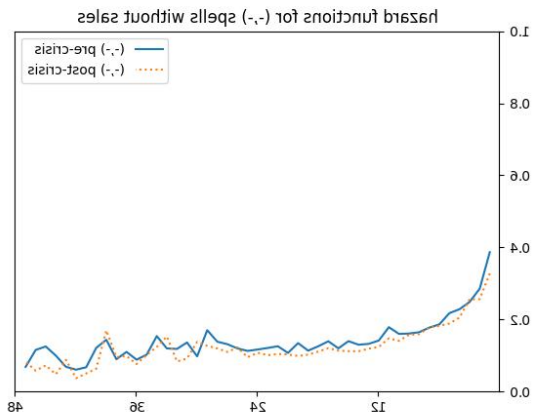
Region (without sales)	(+,+)		(+,-)		(-,-)		(-,+)	
	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>	<i>pre</i>	<i>post</i>
Unknown	34.30%	23.78%	25.30%	25.98%	18.11%	19.69%	22.29%	30.55%
London	39.85%	39.44%	20.97%	21.13%	16.53%	17.07%	22.66%	22.36%
South East	40.48%	39.24%	20.65%	21.70%	16.89%	16.23%	21.98%	22.83%
South West	41.35%	38.99%	20.35%	21.52%	16.54%	16.55%	21.76%	22.94%
East Anglia	40.69%	39.02%	20.38%	21.34%	17.12%	16.71%	21.81%	22.92%
East Midlands	40.81%	38.35%	20.07%	21.60%	17.36%	17.08%	21.77%	22.98%
West Midlands	40.37%	37.81%	20.58%	21.74%	16.93%	17.26%	22.12%	23.19%
Yorkshire & Humber	40.36%	38.34%	20.48%	21.67%	16.98%	16.79%	22.18%	23.20%
North West	40.47%	38.38%	20.34%	21.46%	17.11%	16.85%	22.08%	23.31%
North	39.77%	36.04%	20.60%	21.99%	17.21%	17.85%	22.42%	24.12%
Wales	39.35%	37.56%	20.57%	21.26%	17.66%	17.76%	22.42%	23.42%
Scotland	39.40%	38.29%	20.84%	21.65%	17.61%	16.98%	22.15%	23.08%
Northern Ireland	42.45%	35.34%	20.41%	22.16%	16.12%	18.81%	21.01%	23.69%

Shop Type (without sales)	(+,+)	(+,-)	(-,-)	(-,+)
Multiple	38.39%	21.18%	17.56%	22.87%
Independent	47.05%	18.90%	13.23%	20.82%

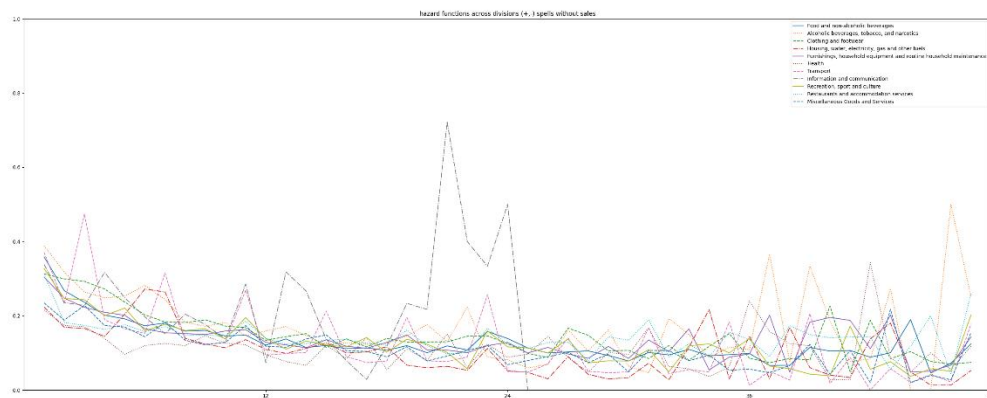
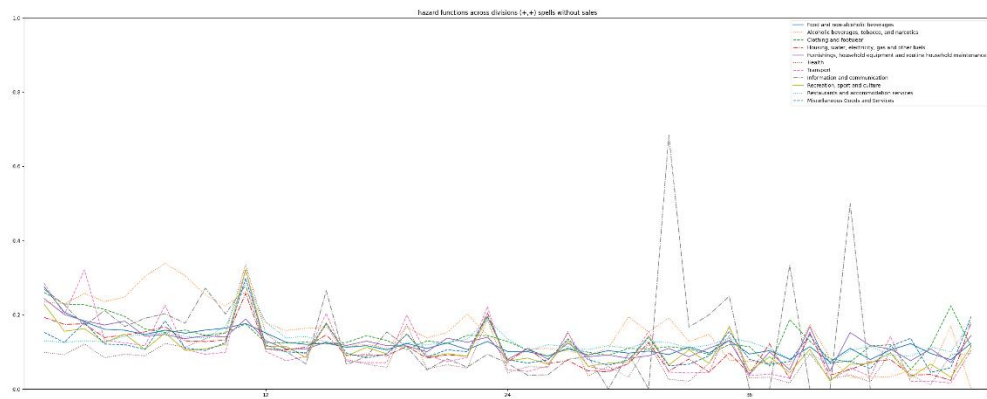
without sales	(+,+)		(+,-)		(-,-)		(-,+)	
Shop Type	pre	post	pre	post	pre	post	pre	post
Multiple	39.24%	36.60%	20.92%	22.04%	17.59%	17.73%	22.25%	23.63%
Independent	45.29%	45.84%	19.18%	19.69%	14.53%	13.21%	21.00%	21.26%

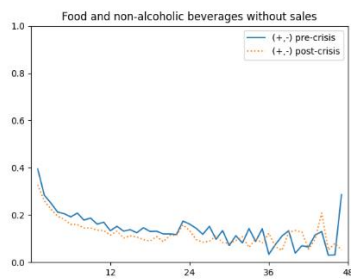
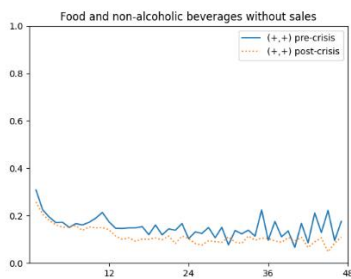
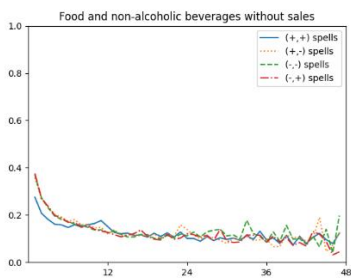
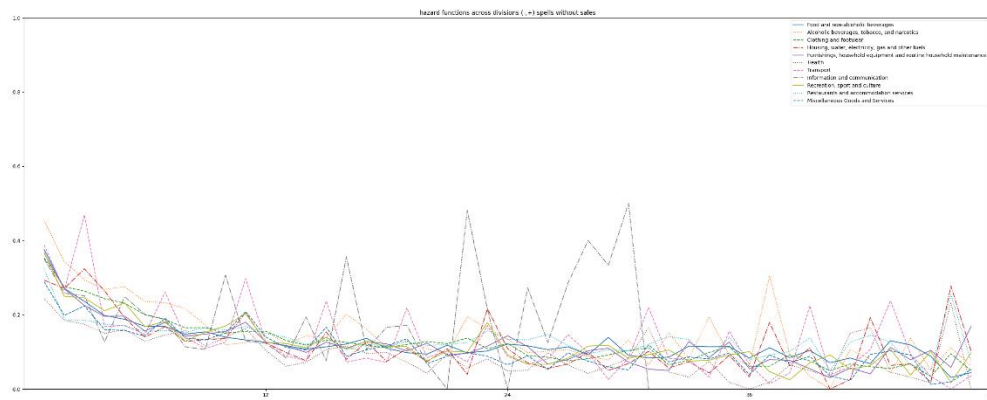
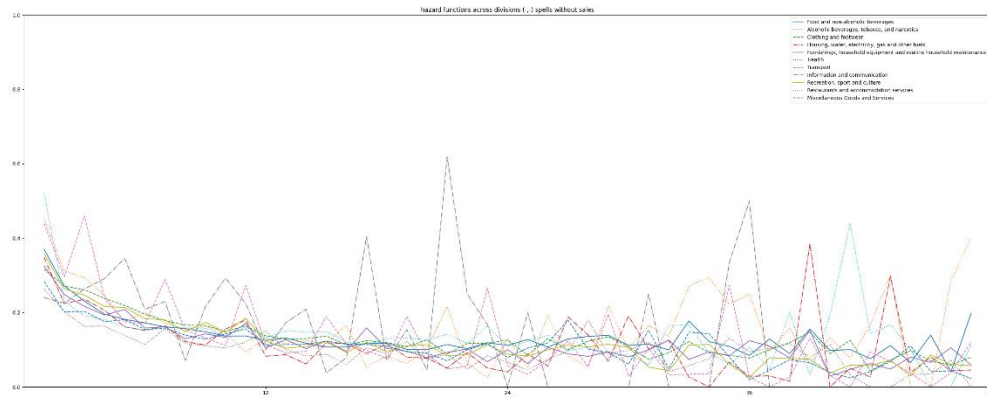
Appendix 4: Hazard Functions for Each Type of Price Spells without Sales

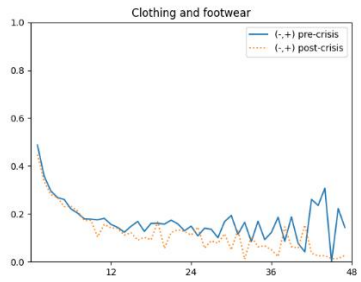
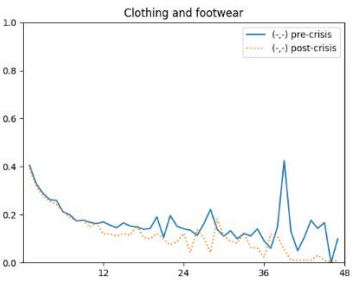
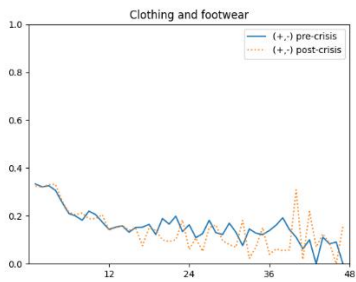
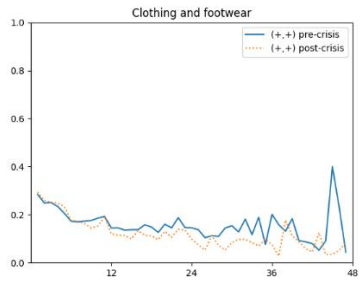
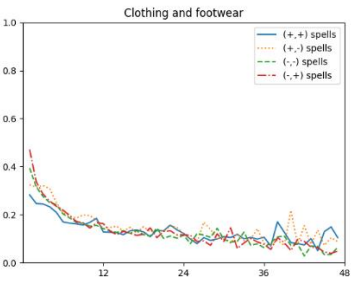
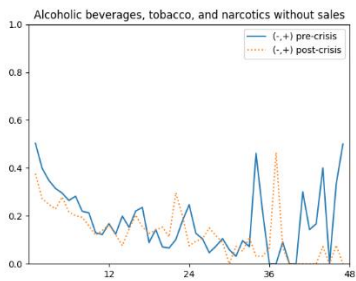
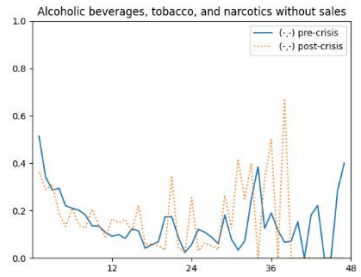
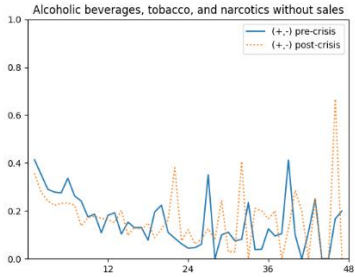
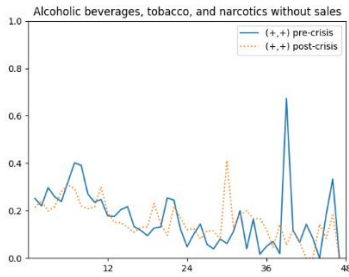
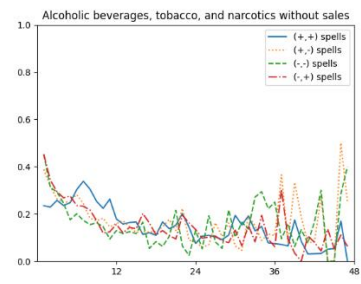
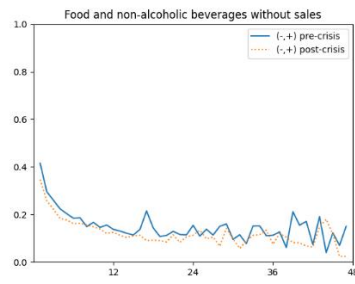
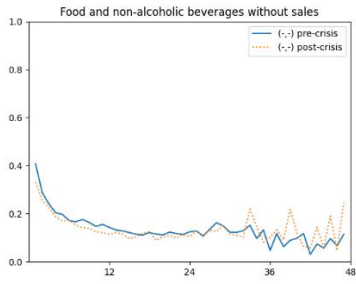


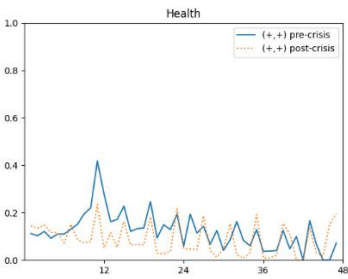
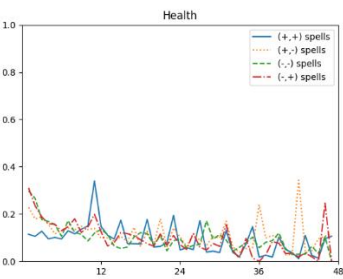
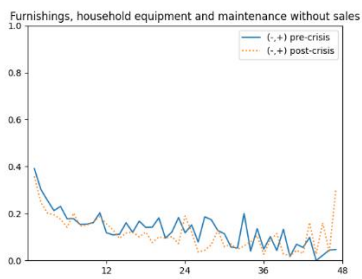
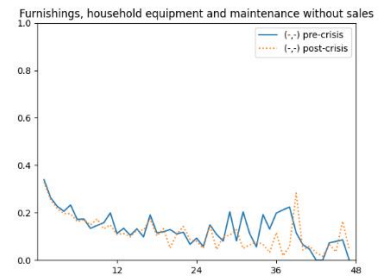
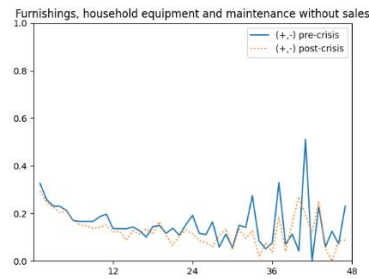
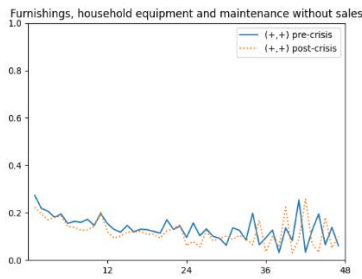
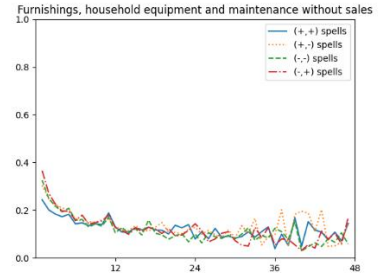
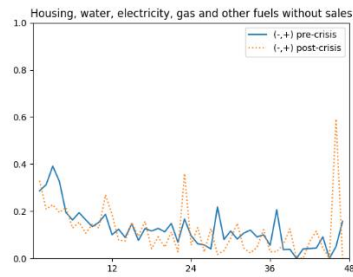
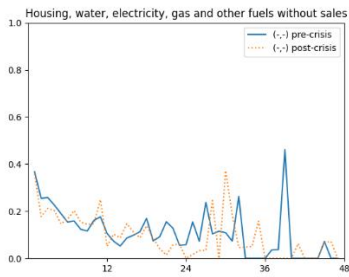
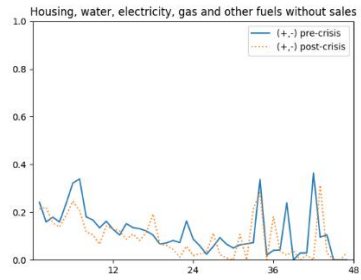
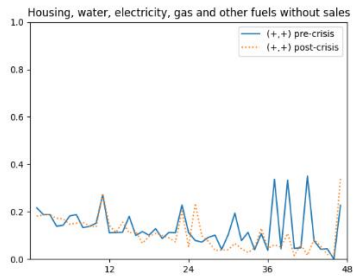
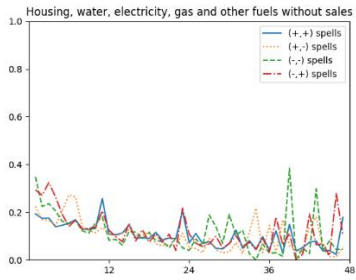


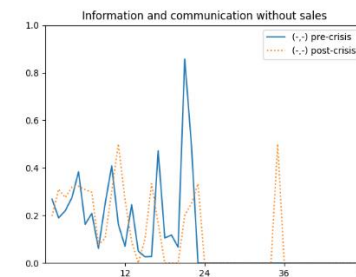
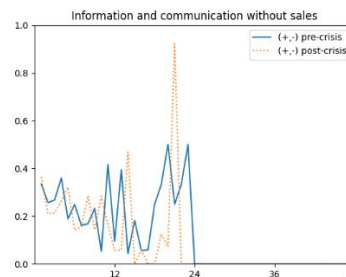
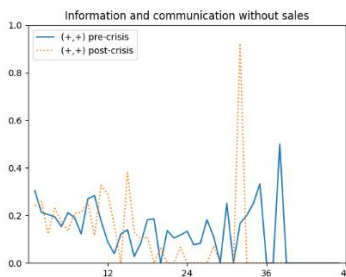
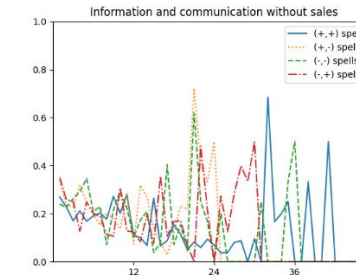
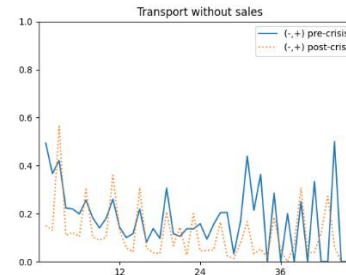
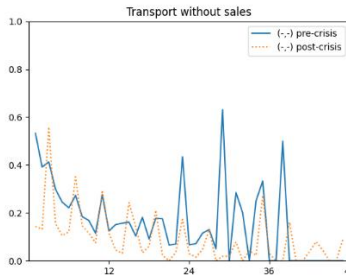
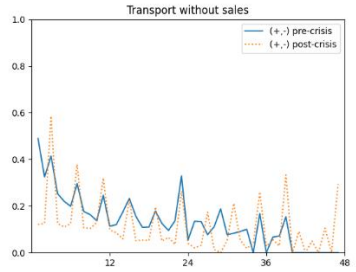
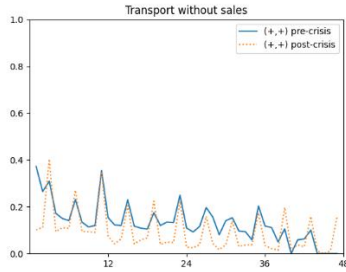
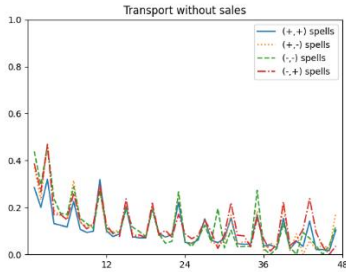
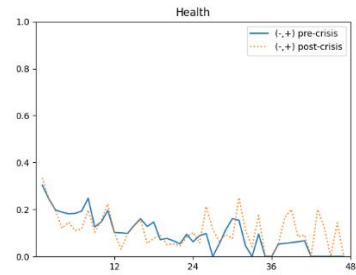
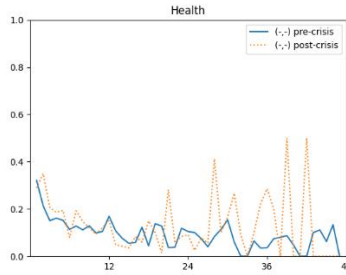
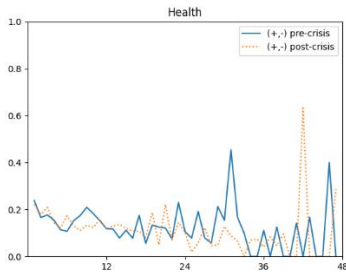
Appendix 5: Hazard Functions Across Divisions without Sales

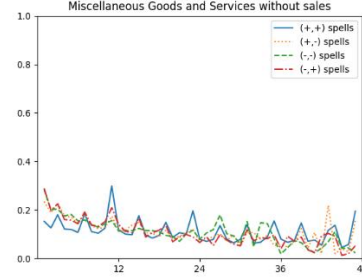
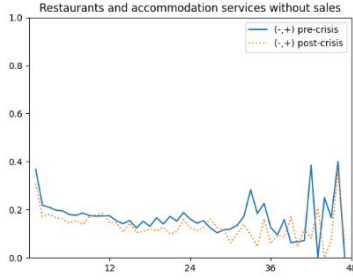
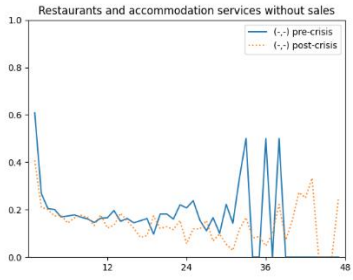
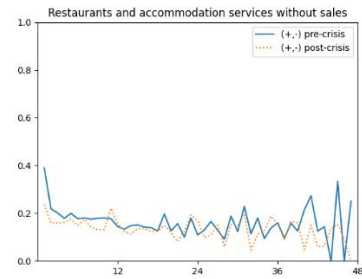
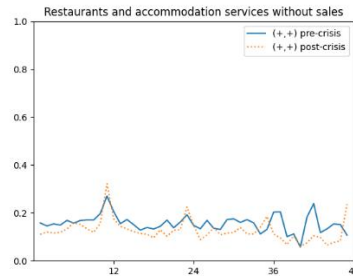
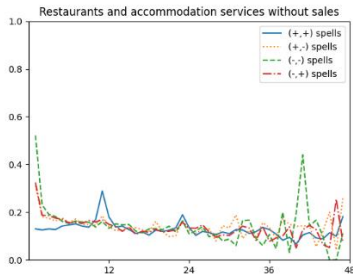
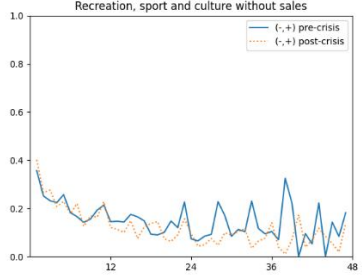
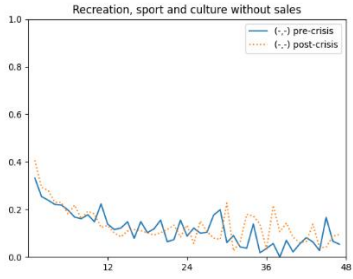
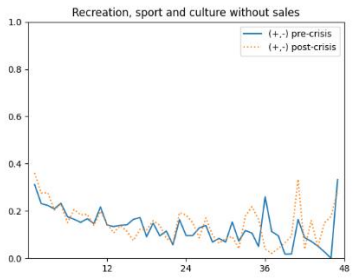
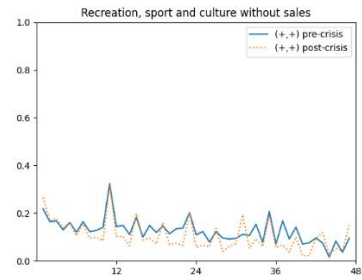
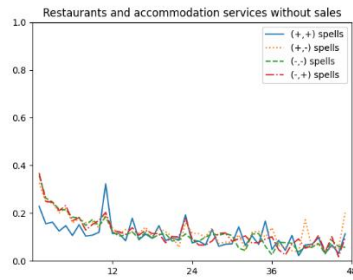
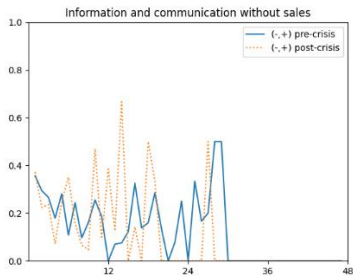


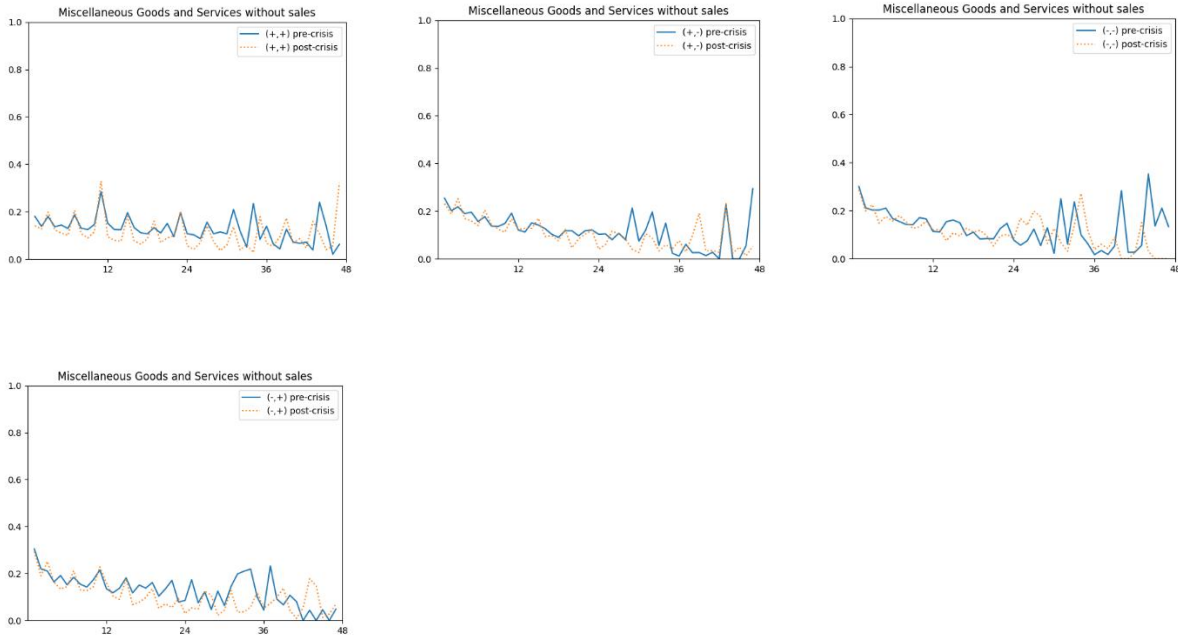




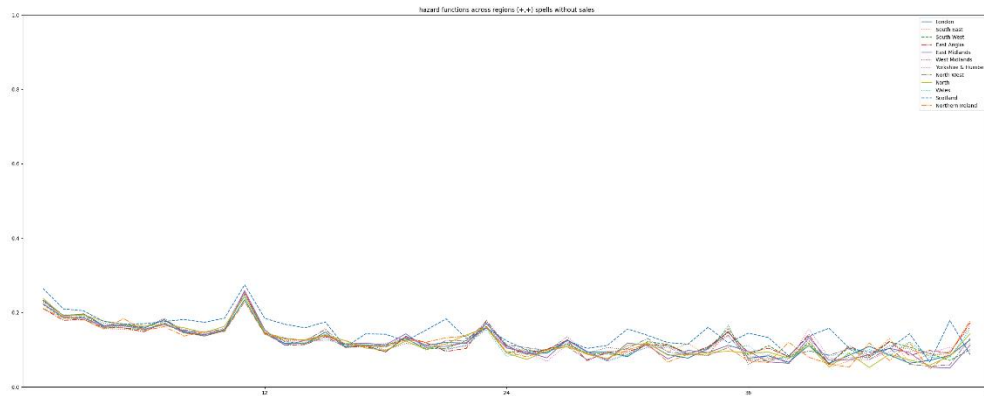


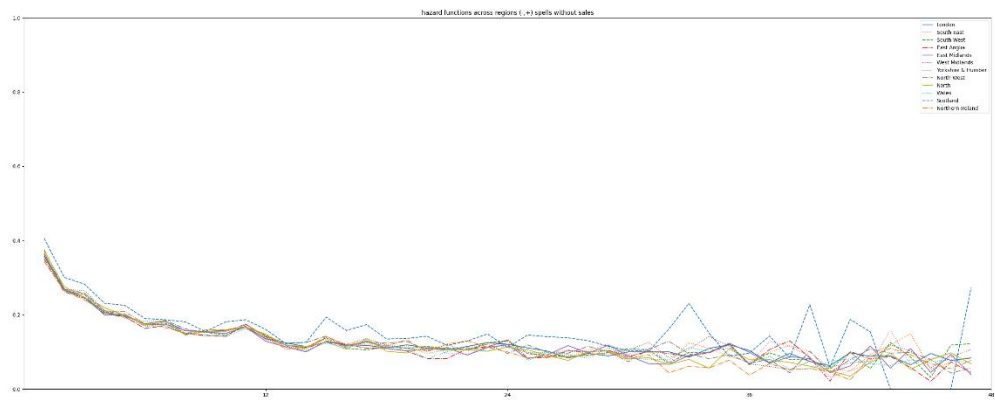
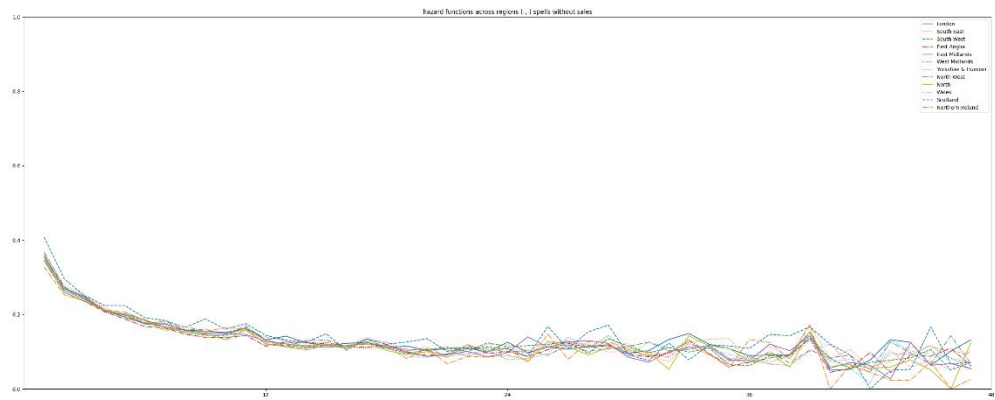
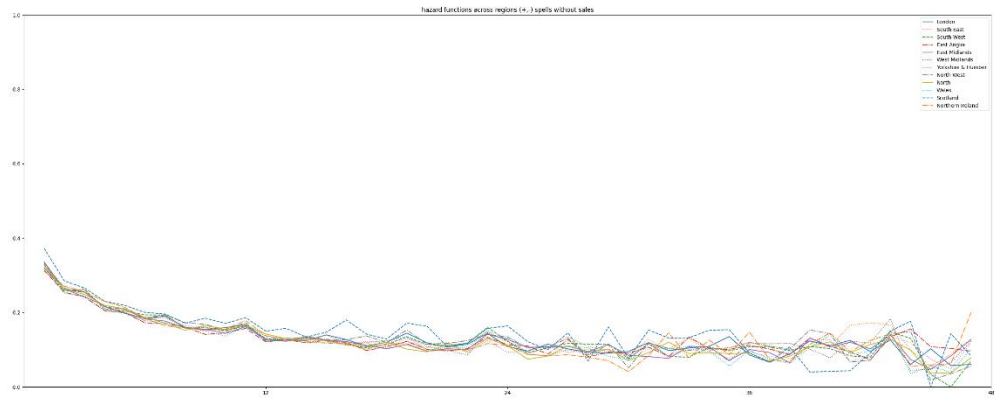


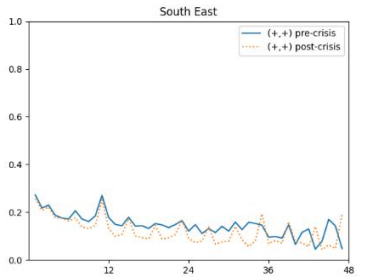
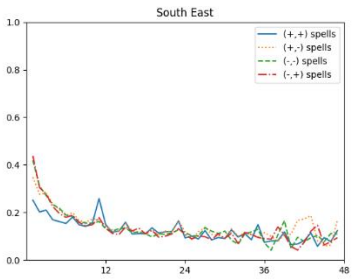
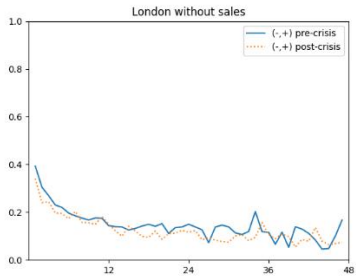
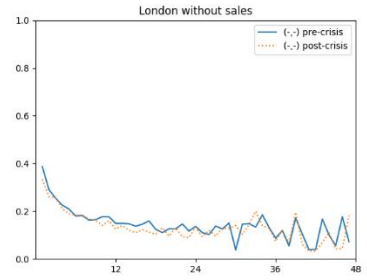
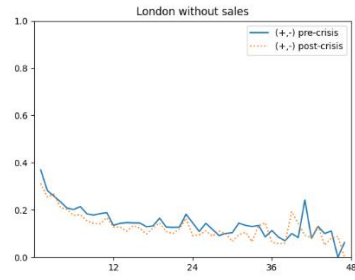
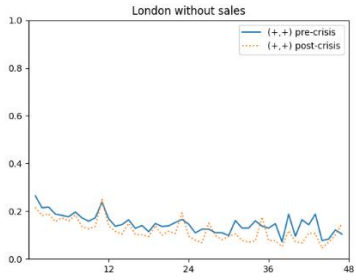
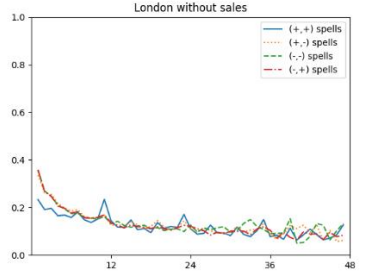
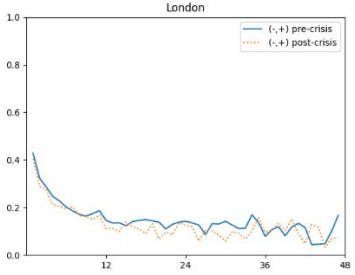
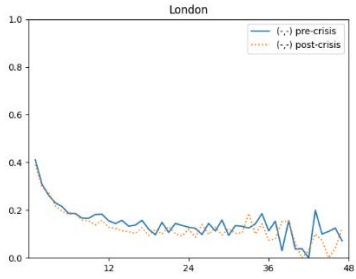
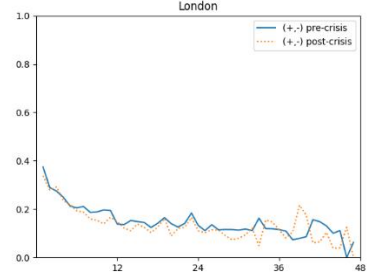
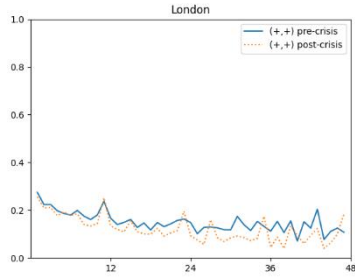
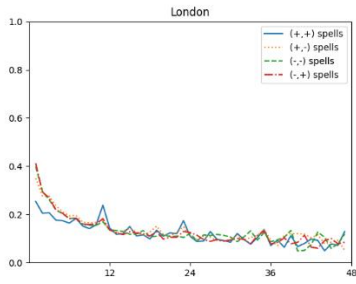


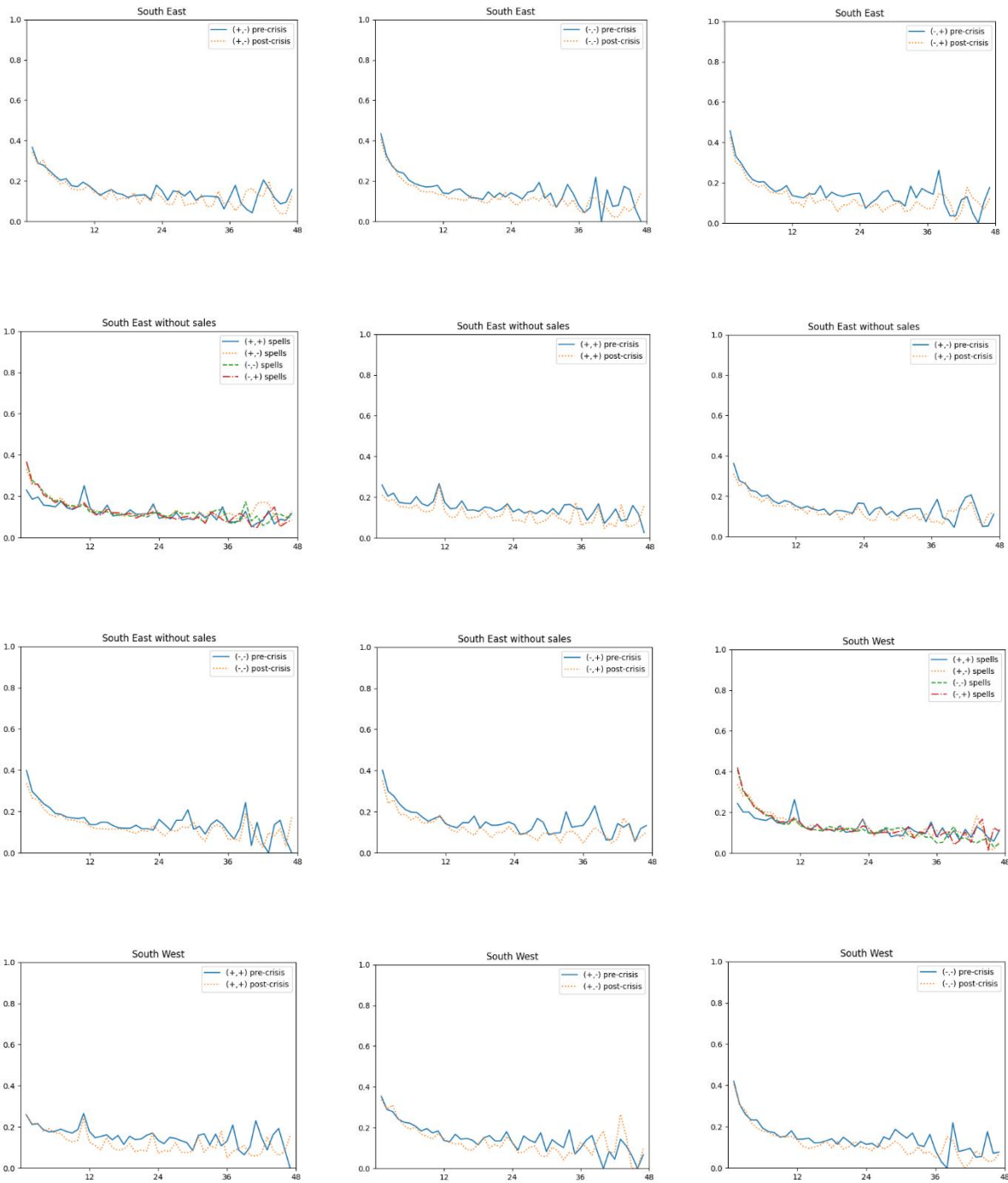


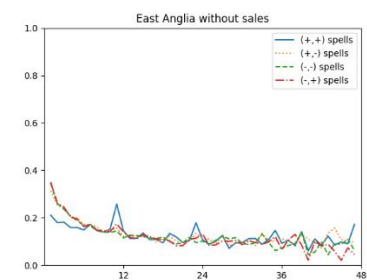
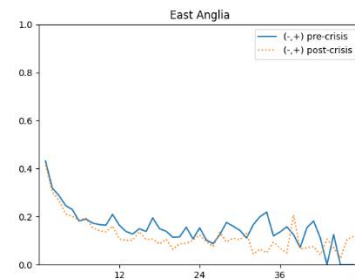
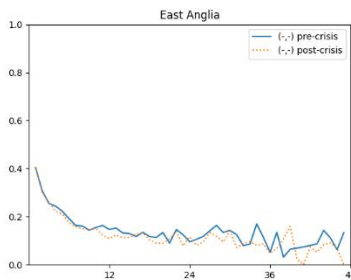
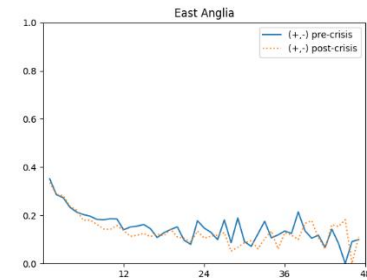
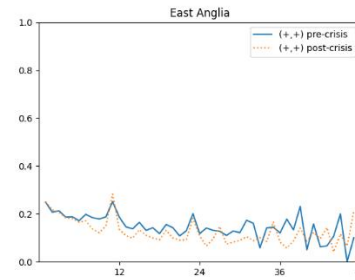
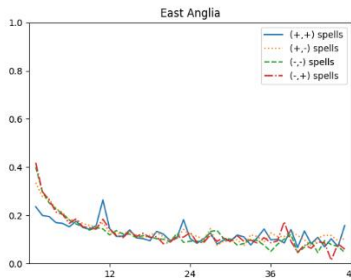
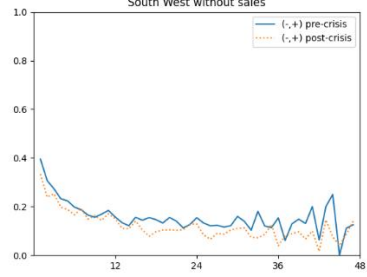
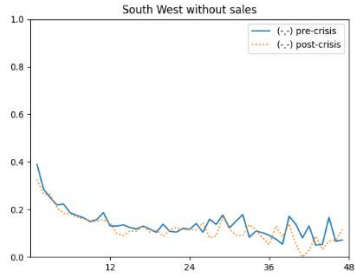
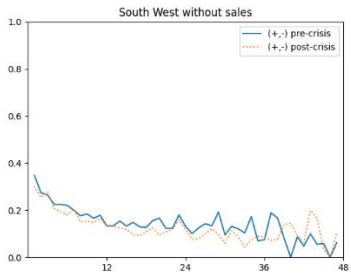
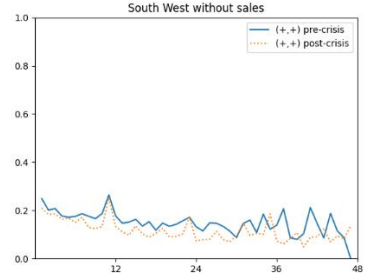
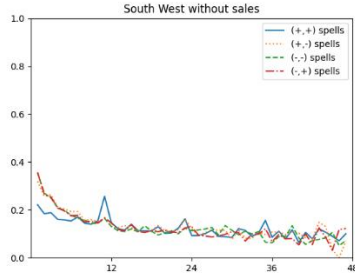
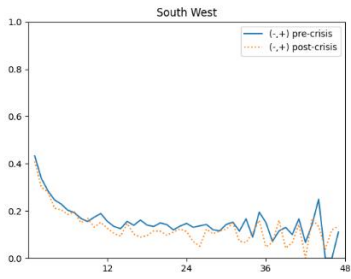
Appendix 6: Hazard Functions Across Regions with and without Sales

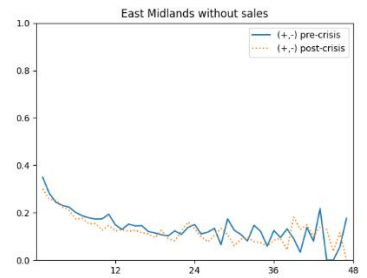
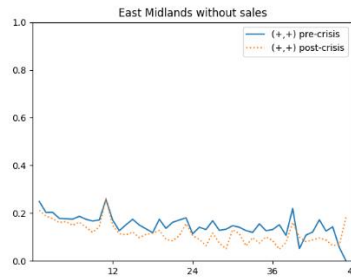
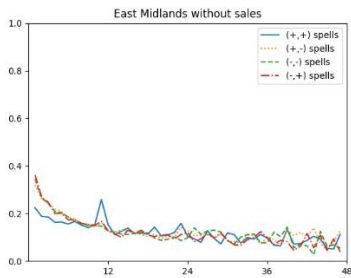
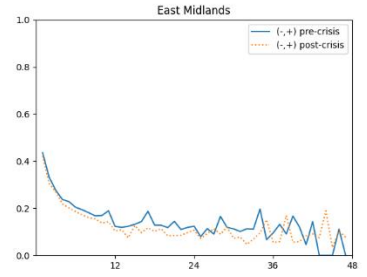
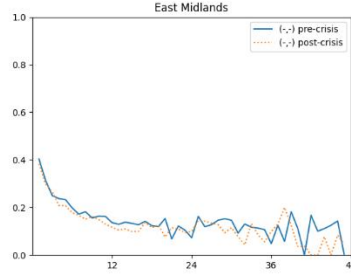
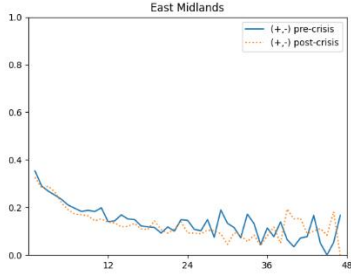
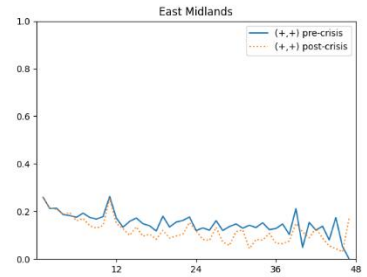
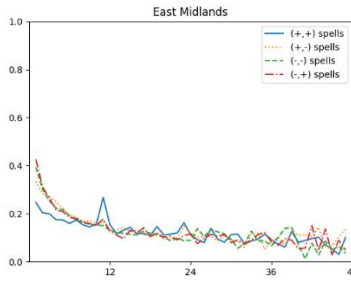
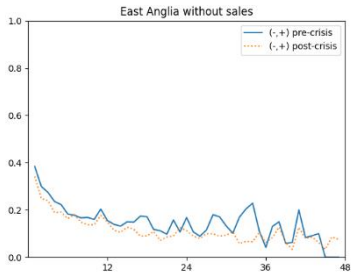
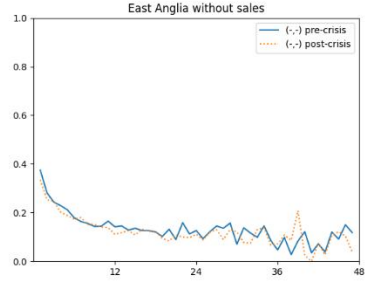
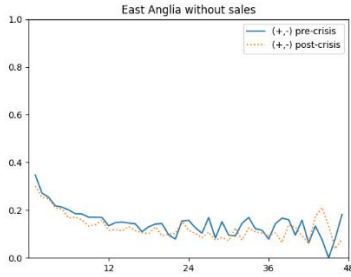
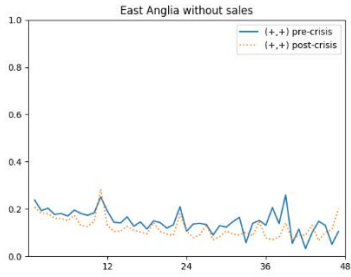


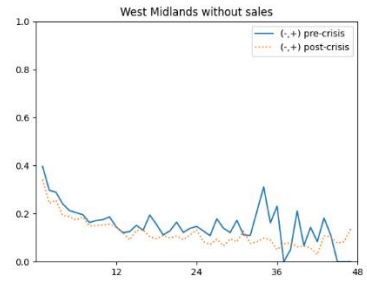
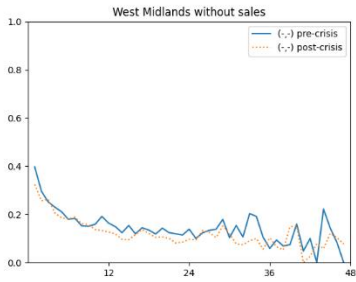
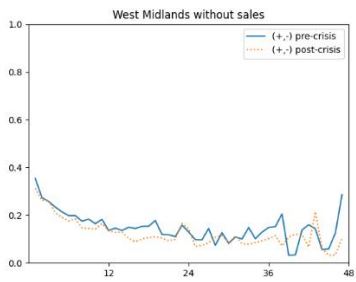
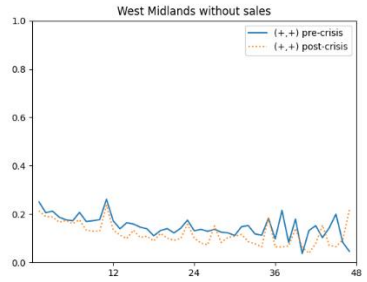
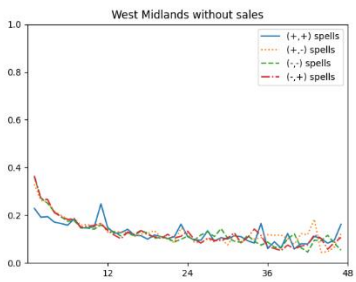
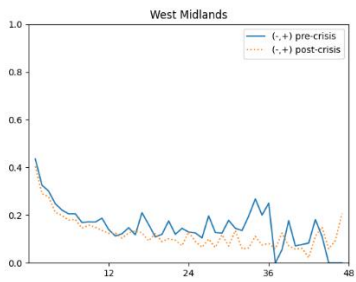
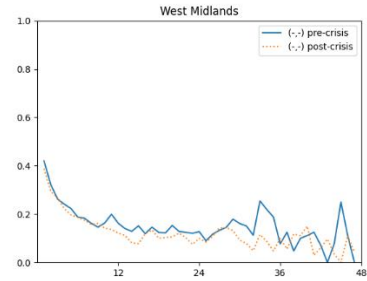
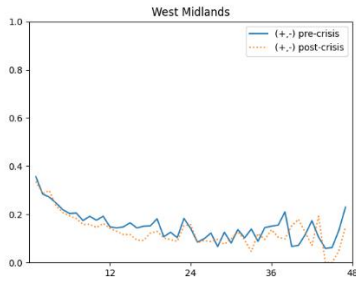
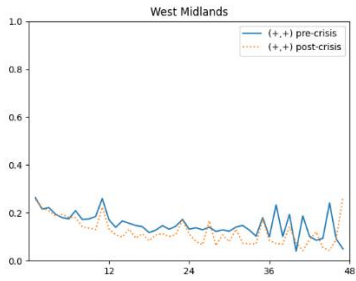
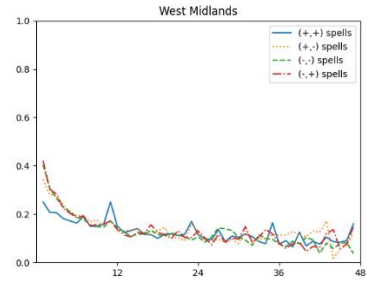
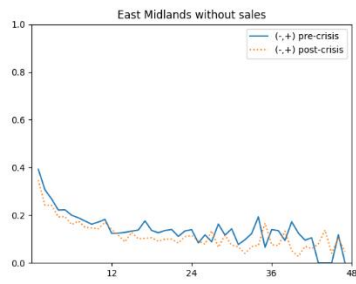
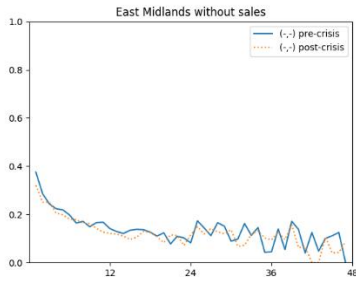


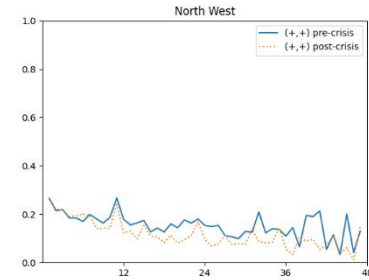
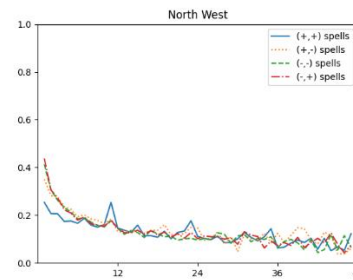
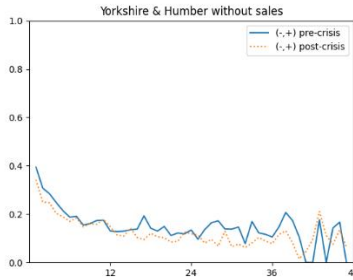
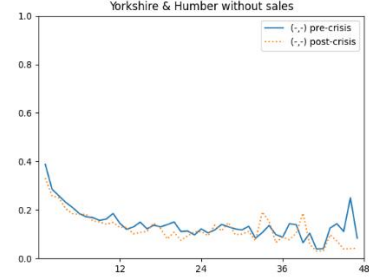
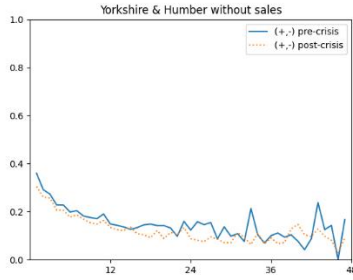
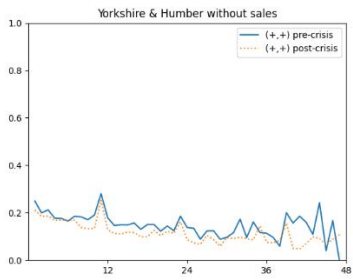
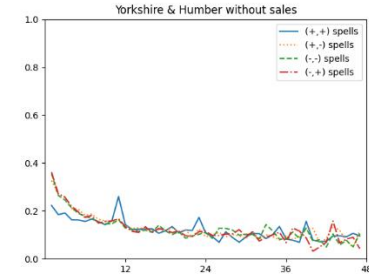
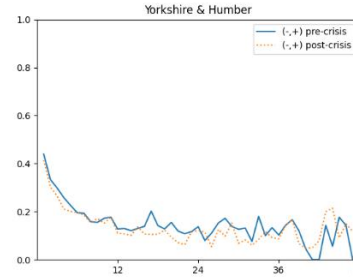
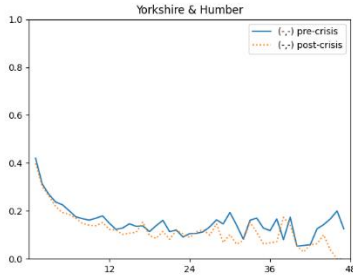
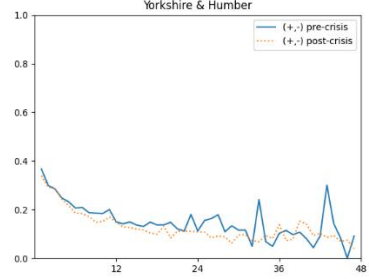
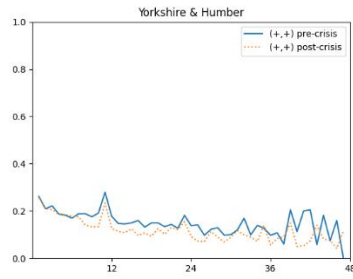
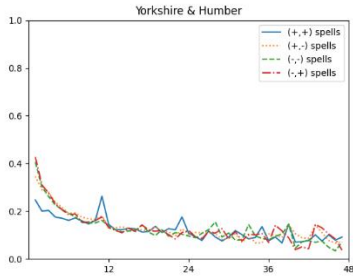


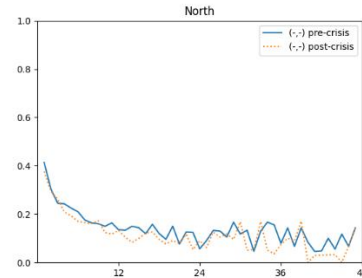
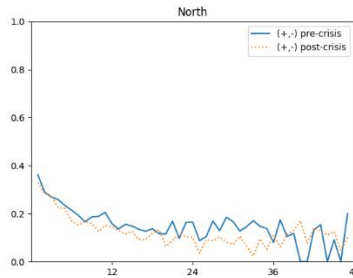
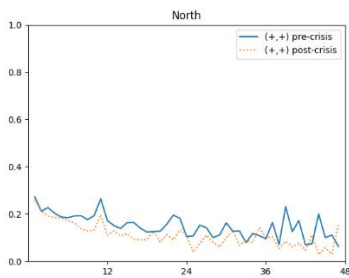
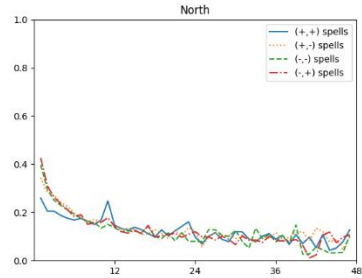
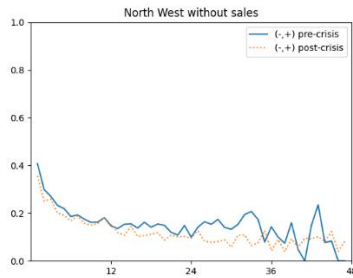
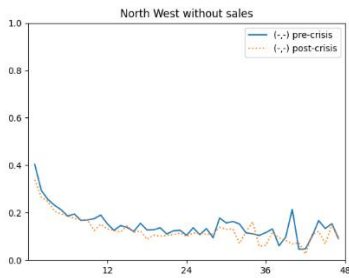
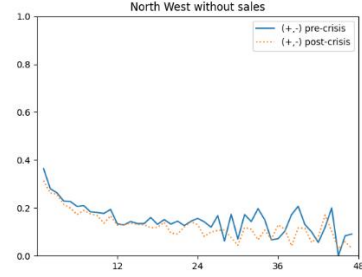
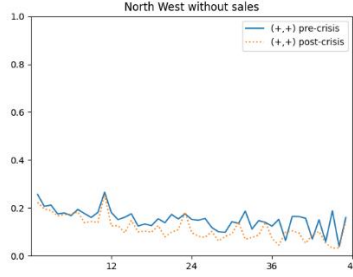
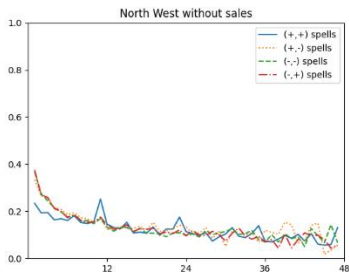
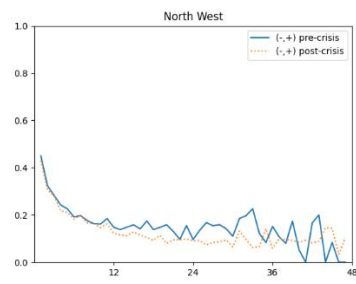
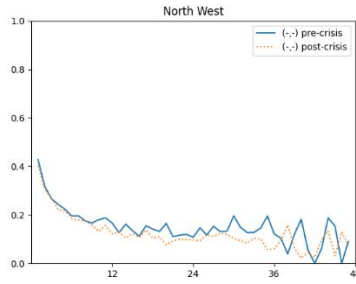
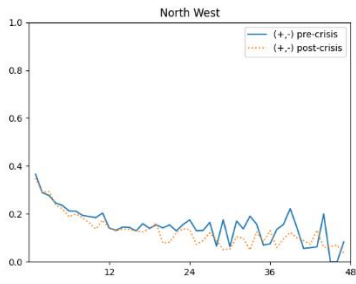


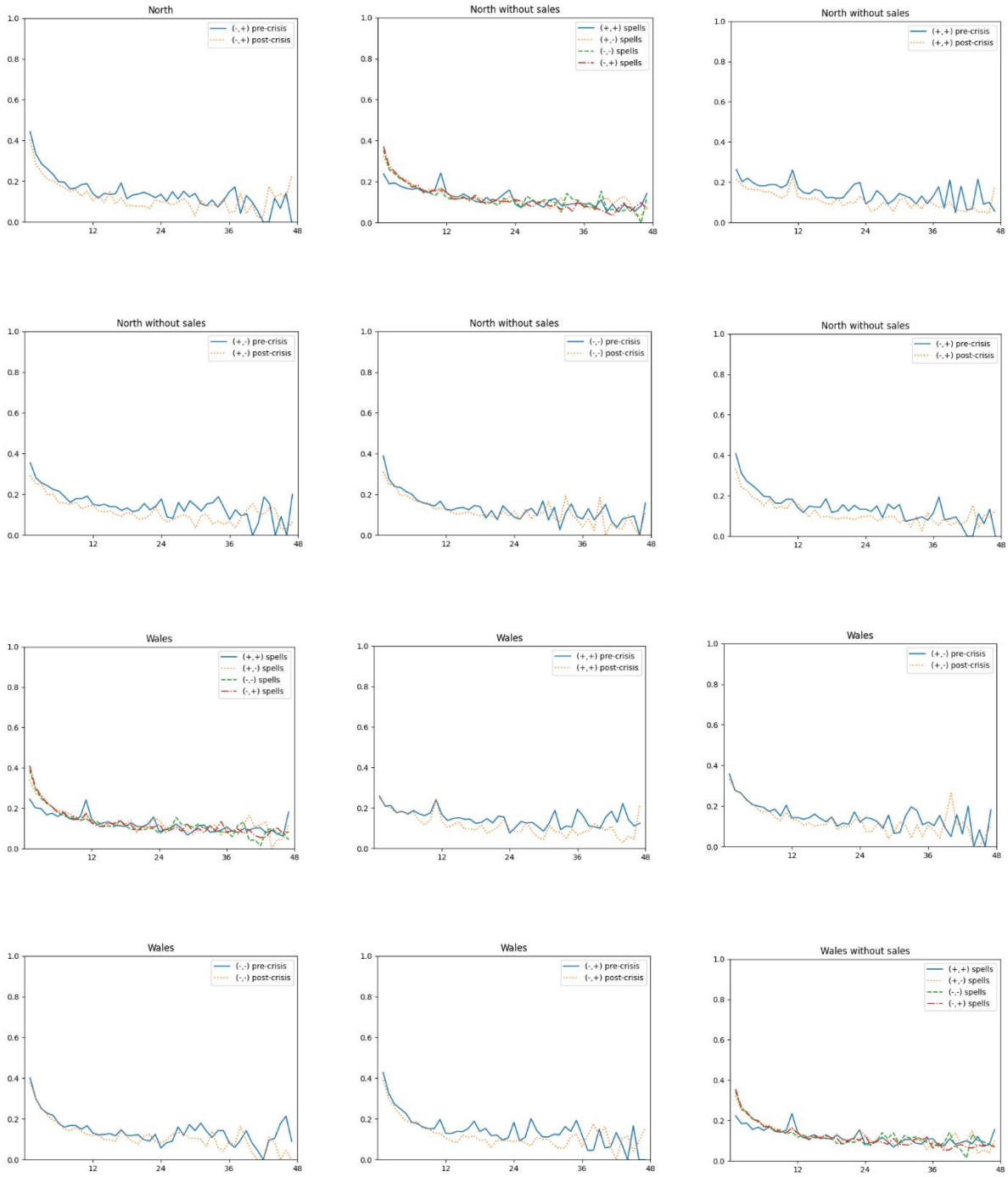


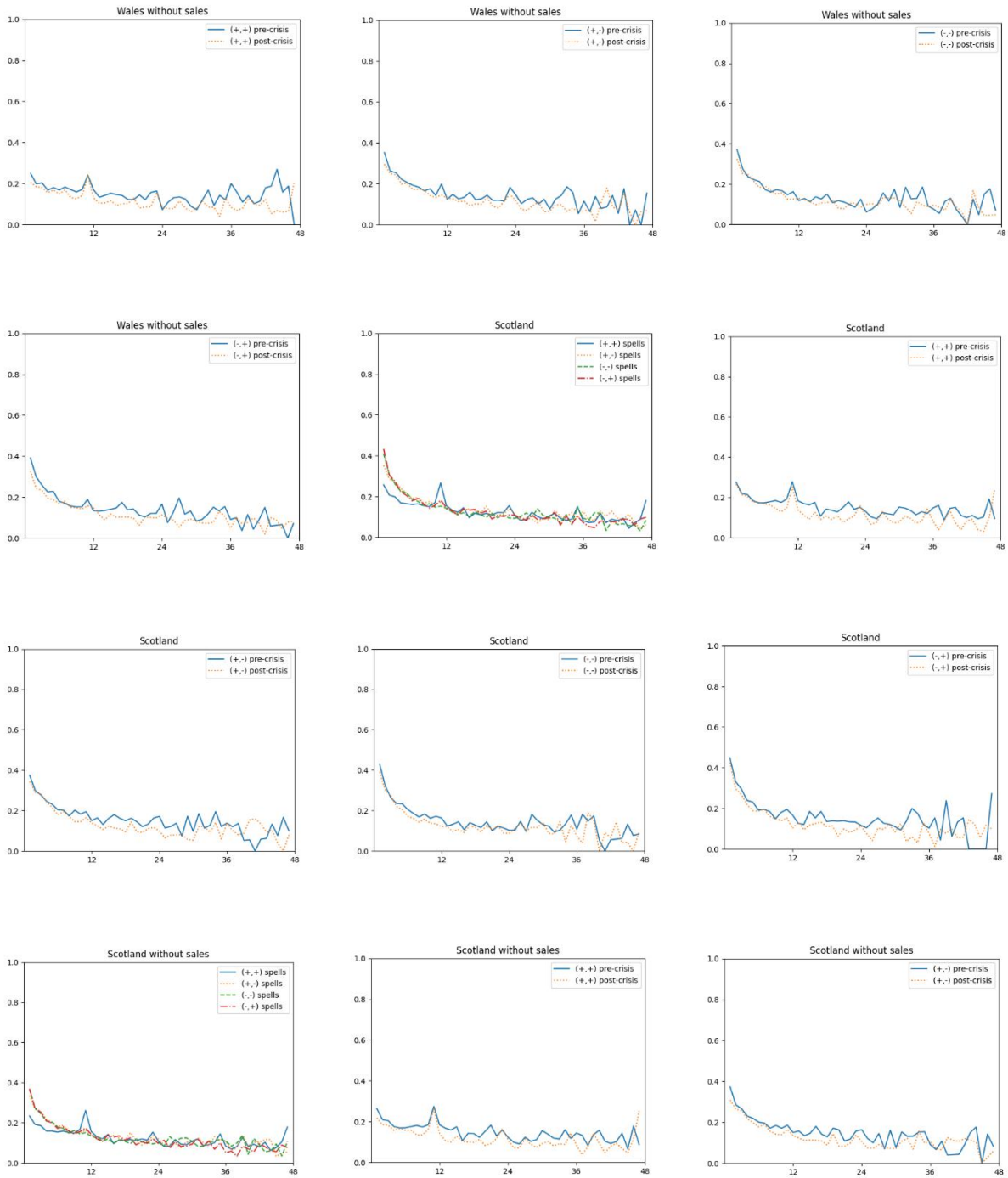


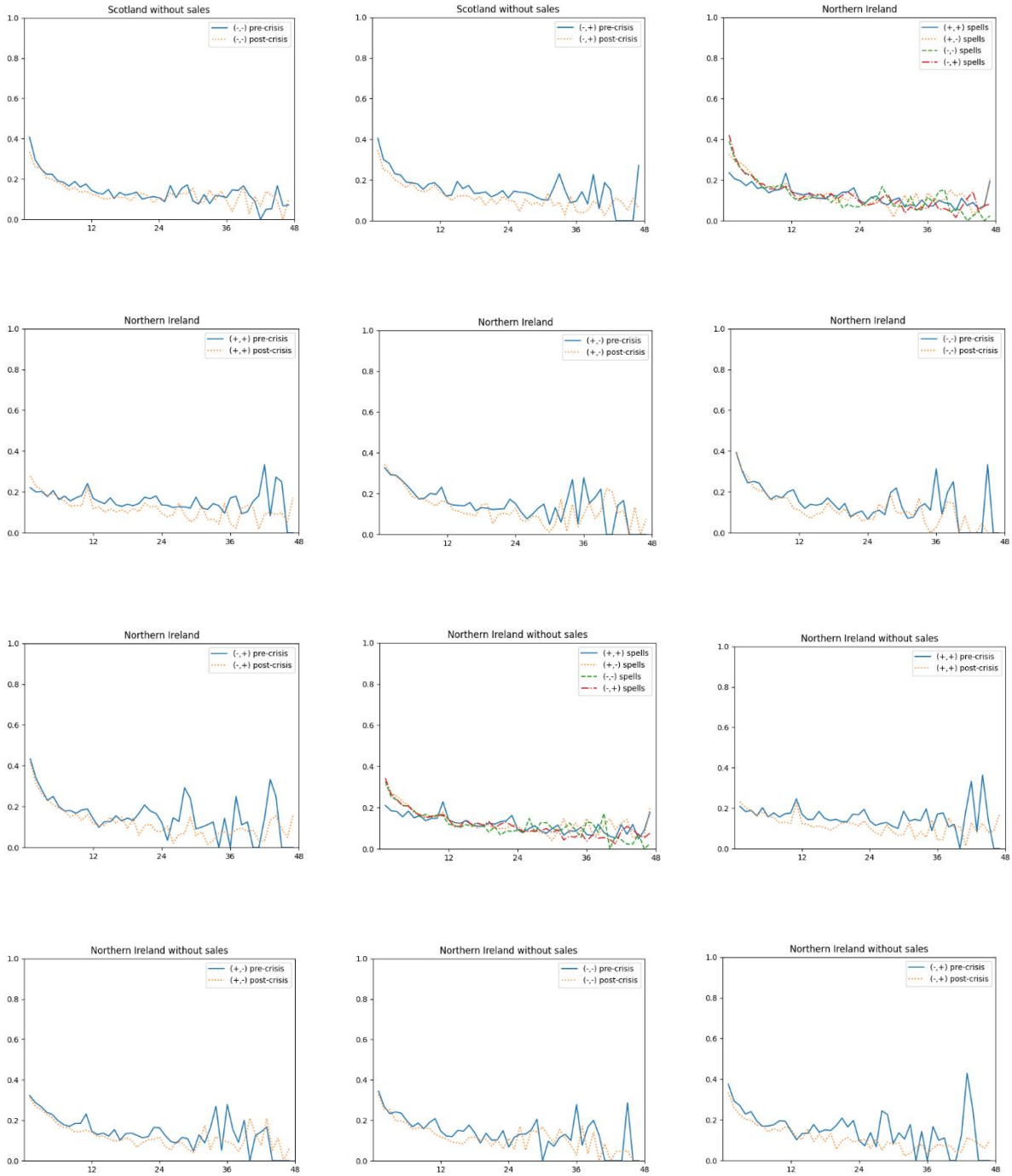




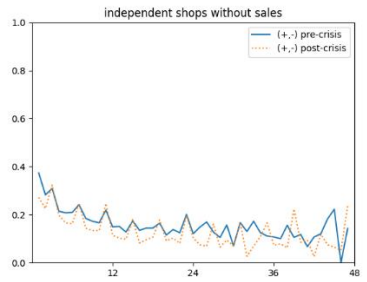
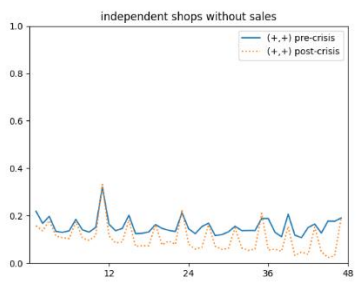
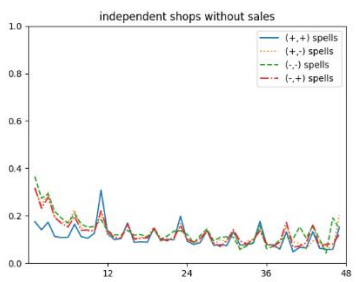
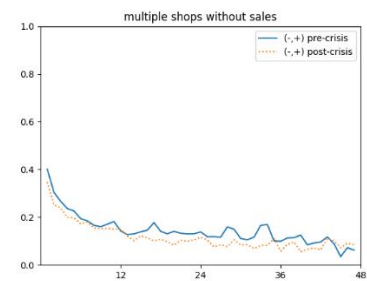
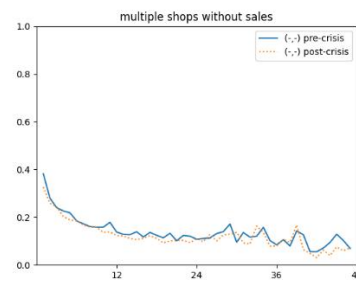
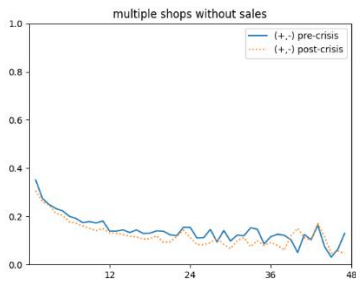
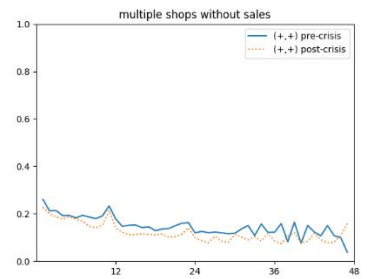
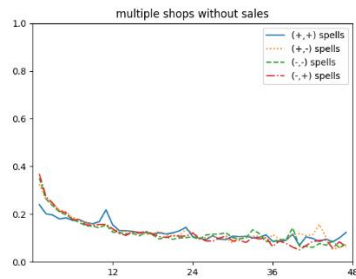
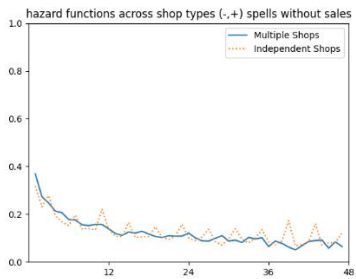
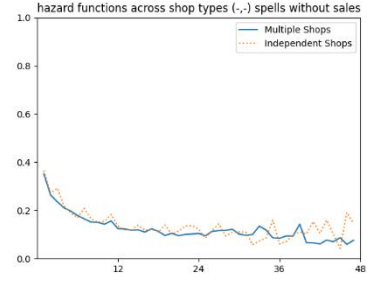
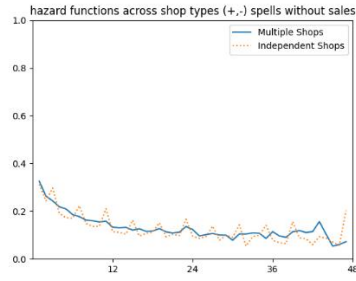
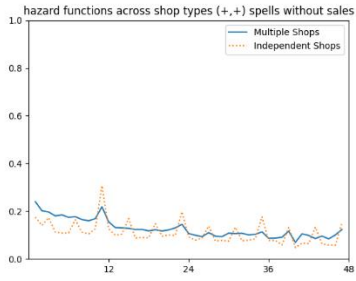


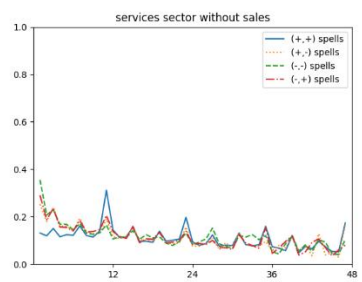
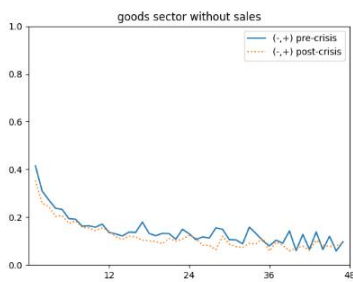
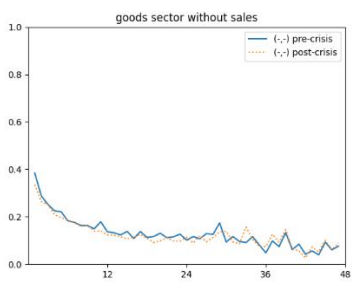
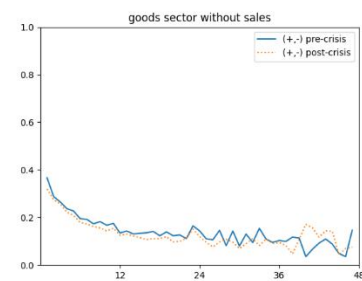
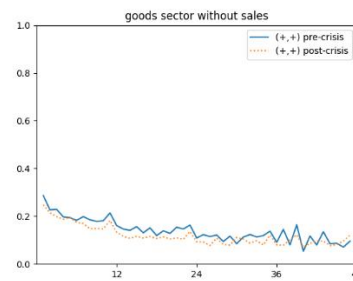
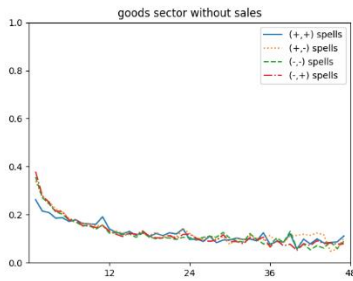
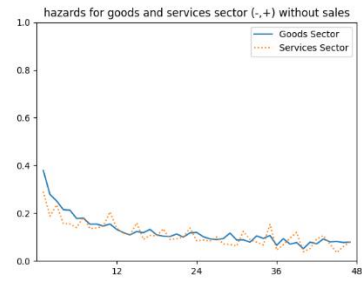
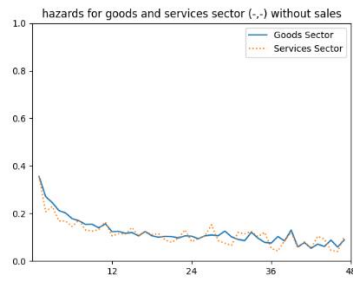
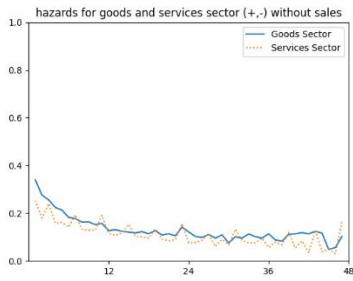
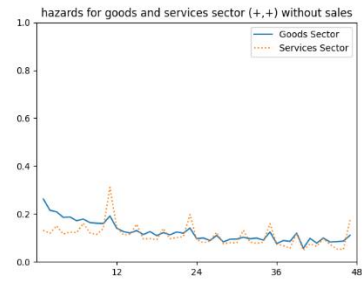
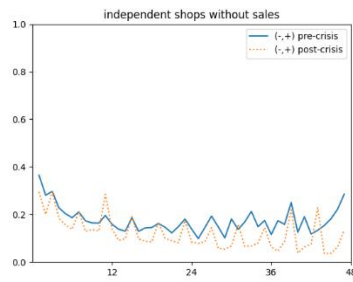
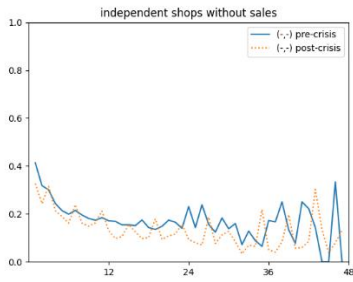


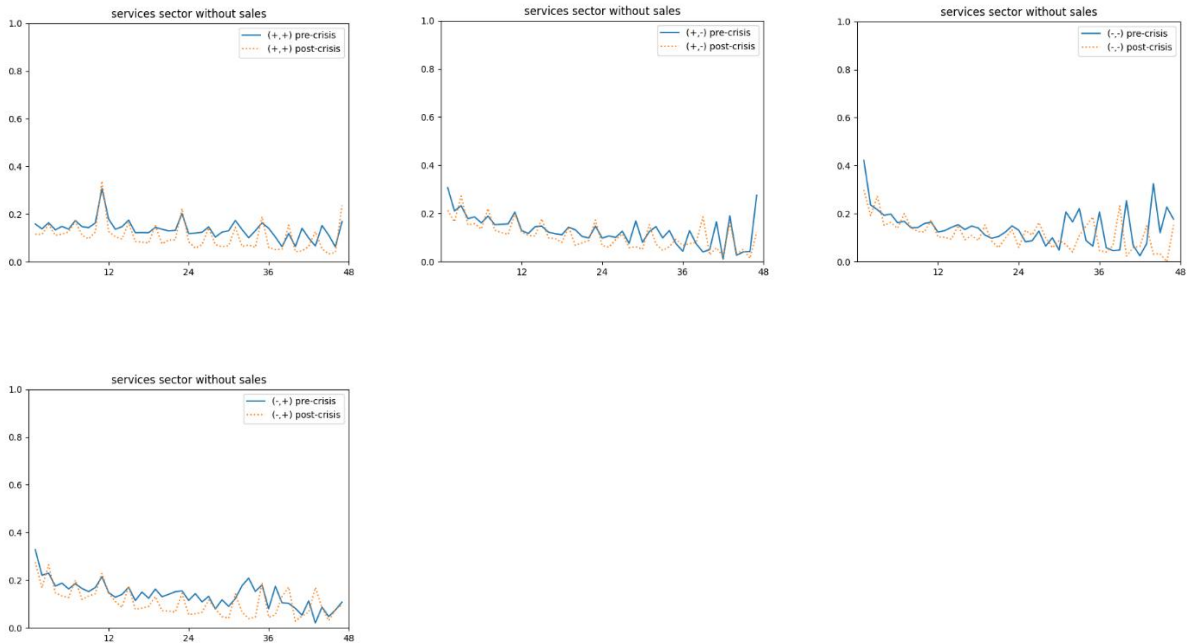




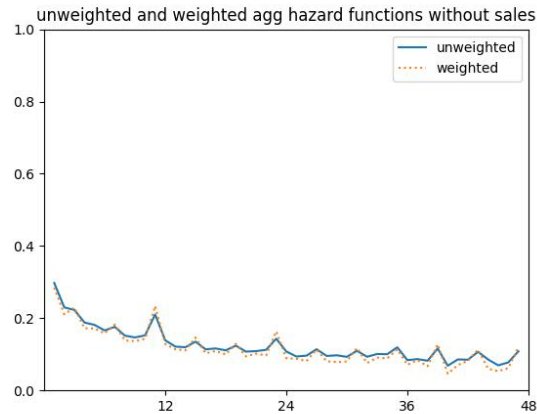
Appendix 7: Hazard Functions for Multiple and Independent Shops without Sales







Appendix 8: Unweighted and Weighted Hazard Functions and Moments without Sales



Age	(+,+)		(+,-)		(-,-)		(-,+)	
weights	no	yes	no	yes	no	yes	no	yes
mean	5.75	4.91	4.41	7.06	4.37	6.17	4.28	6.82
median	4.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00
variance	0.0014	0.0016	0.0019	0.0013	0.0018	0.0014	0.0019	0.0013
skewness	46.77	47.33	32.57	139.86	55.40	110.70	52.71	132.59
std.	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

DAF	(+,+)		(+,-)		(-,-)		(-,+)	
	no	yes	no	yes	no	yes	no	yes
weights								
mean	12.54	11.40	11.13	14.98	11.63	13.68	11.46	15.11
median	10.00	9.00	8.00	7.00	8.00	6.00	8.00	7.00
variance	0.1348	0.6417	0.3973	0.5662	0.4153	0.8978	0.4532	0.6562
skewness	6.93	2.99	4.96	10.60	5.63	8.10	5.14	10.02
std.	0.37	0.80	0.63	0.75	0.64	0.95	0.67	0.81

Appendix 9: DAF for 11 Divisions without Sales

DAF(mean)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	12.87	11.54	11.79	11.97
Alcoholic beverages, tobacco, and narcotics	7.56	8.33	10.29	8.08
Clothing and footwear	11.75	9.29	10.68	10.52
Housing, water, electricity, gas, and other fuels	14.60	14.50	14.20	12.20
Furnishings, household equipment maintenance	13.26	11.70	13.04	12.06
Health	16.66	16.30	16.62	17.22
Transport	13.36	9.89	9.05	9.71
Information and communication	10.70	8.05	8.02	9.42
Recreation, sport, and culture	14.39	11.41	11.82	11.41
Restaurants and accommodation services	12.86	12.09	10.96	12.05
Miscellaneous Goods and Services	14.62	13.96	13.68	13.65

DAF(mean)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	10.74	9.74	10.72	9.95
post-crisis	14.13	12.84	12.66	13.04
Alcoholic beverages, tobacco, and narcotics(pre)	6.68	7.32	9.83	6.33
post-crisis	8.04	9.12	10.47	9.45
Clothing and footwear(pre)	10.36	8.46	8.75	8.37
post-crisis	12.38	9.13	10.42	11.03
Housing, water, electricity, gas, and other fuels(pre)	12.51	11.13	12.59	9.97
post-crisis	13.58	16.09	14.02	12.78
Furnishings, household equipment maintenance(pre)	11.52	10.20	11.02	9.90
post-crisis	13.84	12.30	12.59	12.59
Health(pre)	11.50	13.44	16.90	13.95
post-crisis	20.03	15.62	15.16	16.75
Transport(pre)	9.85	7.32	6.21	7.03
post-crisis	14.98	10.95	12.47	11.35

Information and communication(pre)	11.15	7.65	8.03	9.55
post-crisis	10.54	8.65	7.62	8.21
Recreation, sport, and culture(pre)	12.35	10.87	10.96	9.82
post-crisis	14.87	10.16	10.30	11.01
Restaurants and accommodation services(pre)	10.93	10.21	8.61	9.93
post-crisis	12.99	12.43	11.54	12.43
Miscellaneous Goods and Services(pre)	12.53	12.54	12.30	11.22
post-crisis	15.30	14.24	13.36	14.20

DAF(median)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	10	8	8	8
Alcoholic beverages, tobacco, and narcotics	6	6	7	5
Clothing and footwear	9	6	7	7
Housing, water, electricity, gas, and other fuels	11	9	10	8
Furnishings, household equipment maintenance	10	9	9	8
Health	11	13	12	12
Transport	10	6	5	6
Information and communication	8	6	5	7
Recreation, sport, and culture	11	8	8	8
Restaurants and accommodation services	11	9	8	9
Miscellaneous Goods and Services	11	10	10	10

DAF(median)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	9	7	8	7
post-crisis	10	9	9	9
Alcoholic beverages, tobacco, and narcotics(pre)	6	5	5	4
post-crisis	6	6	8	6
Clothing and footwear(pre)	8	6	6	6
post-crisis	9	6	7	7
Housing, water, electricity, gas, and other fuels(pre)	10	7	9	6
post-crisis	10	11	9	9
Furnishings, household equipment maintenance(pre)	9	8	8	7
post-crisis	11	9	9	9
Health(pre)	10	10	12	9
post-crisis	15	12	10	12
Transport(pre)	7	4	3	4
post-crisis	11	7	7	7
Information and communication(pre)	8	6	6	7

	post-crisis	8	6	5	6
	Recreation, sport, and culture(pre)	11	8	7	7
	post-crisis	11	7	7	7
	Restaurants and accommodation services(pre)	9	8	7	8
	post-crisis	11	10	9	10
	Miscellaneous Goods and Services(pre)	10	9	9	9
	post-crisis	11	10	10	10

DAF(std.)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	0.38	0.64	0.63	0.65
Alcoholic beverages, tobacco, and narcotics	0.79	1.08	1.08	1.43
Clothing and footwear	0.48	0.84	0.68	0.77
Housing, water, electricity, gas, and other fuels	0.29	0.37	0.48	0.65
Furnishings, household equipment maintenance	0.36	0.53	0.51	0.63
Health	0.22	0.22	0.27	0.26
Transport	0.47	1.05	1.38	1.08
Information and communication	0.51	0.83	0.79	0.70
Recreation, sport, and culture	0.28	0.60	0.67	0.68
Restaurants and accommodation services	0.29	0.42	1.02	0.44
Miscellaneous Goods and Services	0.26	0.36	0.39	0.40

DAF(std.)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	0.50	0.86	0.81	0.92
post-crisis	0.34	0.52	0.51	0.53
Alcoholic beverages, tobacco, and narcotics(pre)	0.93	1.41	1.55	2.21
post-crisis	0.71	0.81	0.75	0.86
Clothing and footwear(pre)	0.54	0.94	0.87	1.02
post-crisis	0.48	0.89	0.71	0.72
Housing, water, electricity, gas, and other fuels(pre)	0.36	0.52	0.62	0.94
post-crisis	0.34	0.32	0.48	0.50
Furnishings, household equipment maintenance(pre)	0.46	0.65	0.63	0.87
post-crisis	0.33	0.50	0.53	0.56
Health(pre)	0.32	0.29	0.29	0.43
post-crisis	0.16	0.26	0.36	0.25
Transport(pre)	0.77	1.80	2.47	1.91
post-crisis	0.51	1.23	1.06	1.06
Information and communication(pre)	0.52	0.95	0.75	0.80
post-crisis	0.52	0.81	0.99	0.82

Recreation, sport, and culture(pre)	0.33	0.58	0.65	0.73
post-crisis	0.30	0.78	0.93	0.83
Restaurants and accommodation services(pre)	0.36	0.67	1.87	0.65
post-crisis	0.28	0.34	0.62	0.40
Miscellaneous Goods and Services(pre)	0.31	0.43	0.47	0.49
post-crisis	0.27	0.38	0.40	0.41

DAF(skewness)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages	7.53	5.49	5.98	6.10
Alcoholic beverages, tobacco, and narcotics	1.97	2.16	3.04	2.16
Clothing and footwear	5.70	3.90	5.39	4.57
Housing, water, electricity, gas, and other fuels	12.34	14.77	8.75	6.46
Furnishings, household equipment maintenance	9.11	5.08	7.97	6.46
Health	25.99	14.71	17.26	19.71
Transport	7.15	3.70	2.93	3.42
Information and communication	5.28	2.47	3.82	3.43
Recreation, sport, and culture	12.14	5.71	5.72	5.00
Restaurants and accommodation services	6.50	7.42	2.91	6.87
Miscellaneous Goods and Services	13.82	10.87	9.51	9.04

DAF(skewness)	+,+	+,-	-,-	-,+
Food and non-alcoholic beverages(pre)	3.48	3.19	3.36	3.22
post-crisis	12.16	7.41	7.21	7.67
Alcoholic beverages, tobacco, and narcotics(pre)	0.73	1.65	3.12	1.05
post-crisis	2.87	3.82	3.28	4.00
Clothing and footwear(pre)	4.34	2.63	3.16	2.32
post-crisis	7.00	3.51	4.85	5.58
Housing, water, electricity, gas, and other fuels(pre)	7.06	7.90	5.80	4.22
post-crisis	10.50	15.75	10.53	7.60
Furnishings, household equipment maintenance(pre)	5.47	3.36	4.77	3.34
post-crisis	8.59	6.55	6.72	6.42
Health(pre)	4.67	11.68	17.04	11.58
post-crisis	31.50	13.66	14.17	18.81
Transport(pre)	3.68	1.84	1.30	1.59
post-crisis	7.75	3.20	5.16	4.10
Information and communication(pre)	6.09	1.73	2.69	3.20
post-crisis	4.88	3.26	2.63	2.69
Recreation, sport, and culture(pre)	4.12	4.96	6.09	3.86

	post-crisis	12.88	4.07	3.54	4.82
Restaurants and accommodation services(pre)		5.36	3.31	0.86	2.95
	post-crisis	7.08	7.16	4.08	6.10
Miscellaneous Goods and Services(pre)		8.03	8.34	7.00	4.50
	post-crisis	16.04	11.19	8.44	10.19

Appendix 10: DAF for 12 Regions without Sales

DAF(mean)	+,+	+,-	-,-	-,+
Unknown	12.50	11.01	11.64	10.23
London	12.56	10.92	11.21	11.33
South East	12.62	10.95	11.19	11.55
South West	12.61	10.97	11.55	11.52
East Anglia	12.86	11.90	12.37	12.04
East Midlands	12.54	11.44	11.79	11.73
West Midlands	12.32	11.18	11.48	11.22
Yorkshire & Humber	12.49	11.08	11.65	11.32
North West	12.14	10.54	11.28	10.96
North	12.35	11.40	12.04	11.56
Wales	13.02	11.68	12.26	12.02
Scotland	12.47	11.02	11.59	11.39
Northern Ireland	12.83	11.45	12.05	11.75

DAF(mean)	+,+	+,-	-,-	-,+
Unknown(pre-)	12.58	11.84	12.26	11.50
post-crisis	12.17	9.52	9.49	8.43
London(pre-)	10.48	9.27	9.77	9.37
post-crisis	13.03	11.42	11.19	11.60
South East(pre-)	10.33	9.53	9.47	9.27
post-crisis	13.45	11.42	11.52	12.39
South West(pre-)	10.39	9.37	10.24	9.20
post-crisis	13.56	11.55	11.73	12.12
East Anglia(pre-)	10.46	9.87	10.72	9.24
post-crisis	13.20	12.04	12.11	12.63
East Midlands(pre-)	10.38	9.85	10.36	9.55
post-crisis	13.43	11.79	11.83	12.64
West Midlands(pre-)	10.32	9.57	9.76	8.96
post-crisis	13.32	11.88	11.99	12.21
Yorkshire & Humber(pre-)	10.37	9.28	10.07	9.30

post-crisis	13.33	11.75	11.84	11.86
North West(pre-)	10.22	9.17	9.52	9.10
post-crisis	12.95	11.15	11.41	11.73
North(pre-)	10.13	9.32	10.70	9.10
post-crisis	14.30	12.93	12.60	13.18
Wales(pre-)	10.97	10.10	10.98	9.83
post-crisis	14.08	12.57	12.49	12.89
Scotland(pre-)	10.34	9.18	9.86	8.95
post-crisis	13.36	11.93	11.82	12.34
Northern Ireland(pre-)	10.73	9.45	9.81	9.06
post-crisis	13.59	12.09	12.39	12.58

DAF(median)	+,+	+,-	-,-	-,+
Unknown	10	8	9	7
London	10	7	8	8
South East	10	8	8	8
South West	10	7	8	8
East Anglia	10	8	9	8
East Midlands	10	8	8	8
West Midlands	9	8	8	8
Yorkshire & Humber	10	8	8	8
North West	9	7	8	7
North	9	8	8	8
Wales	10	8	8	8
Scotland	10	7	8	8
Northern Ireland	10	8	8	8

DAF(median)	+,+	+,-	-,-	-,+
Unknown(pre-)	11	9	10	9
post-crisis	8	7	7	6
London(pre-)	8	7	7	6
post-crisis	10	8	8	8
South East(pre-)	8	7	6	6
post-crisis	11	8	8	9
South West(pre-)	8	7	7	6
post-crisis	10	8	8	8
East Anglia(pre-)	8	7	7	7
post-crisis	10	8	8	9
East Midlands(pre-)	8	7	7	6
post-crisis	10	8	8	9

West Midlands(pre-)	8	7	7	6
post-crisis	10	8	8	8
Yorkshire & Humber(pre-)	8	6	7	6
post-crisis	10	8	8	8
North West(pre-)	8	6	7	6
post-crisis	10	8	8	8
North(pre-)	8	6	7	6
post-crisis	11	9	9	9
Wales(pre-)	9	7	8	7
post-crisis	11	8	8	9
Scotland(pre-)	8	6	7	6
post-crisis	10	8	8	8
Northern Ireland(pre-)	9	7	7	6
post-crisis	10	8	8	9

DAF(std.)	+,+	+,-	-,-	-,+
Unknown	0.36	0.48	0.43	0.61
London	0.38	0.66	0.67	0.67
South East	0.36	0.65	0.71	0.68
South West	0.36	0.64	0.65	0.66
East Anglia	0.34	0.56	0.58	0.61
East Midlands	0.36	0.61	0.62	0.66
West Midlands	0.38	0.64	0.67	0.71
Yorkshire & Humber	0.37	0.65	0.64	0.70
North West	0.39	0.68	0.70	0.74
North	0.39	0.63	0.62	0.71
Wales	0.35	0.58	0.59	0.63
Scotland	0.37	0.66	0.68	0.70
Northern Ireland	0.35	0.63	0.58	0.63

DAF(std.)	+,+	+,-	-,-	-,+
Unknown(pre-)	0.31	0.40	0.38	0.43
post-crisis	0.53	0.72	0.78	1.09
London(pre-)	0.50	0.85	0.85	0.94
post-crisis	0.35	0.60	0.63	0.60
South East(pre-)	0.49	0.82	0.94	0.97
post-crisis	0.33	0.60	0.63	0.59
South West(pre-)	0.47	0.80	0.82	0.96
post-crisis	0.33	0.60	0.61	0.57
East Anglia(pre-)	0.46	0.75	0.75	0.92

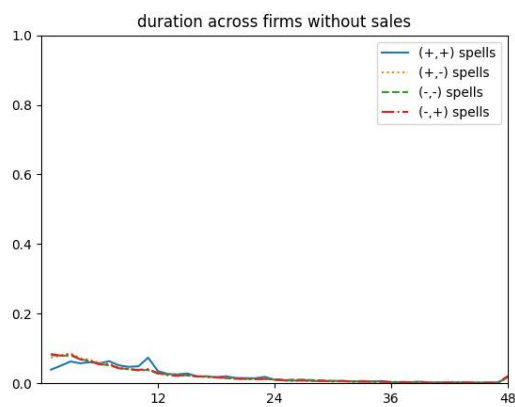
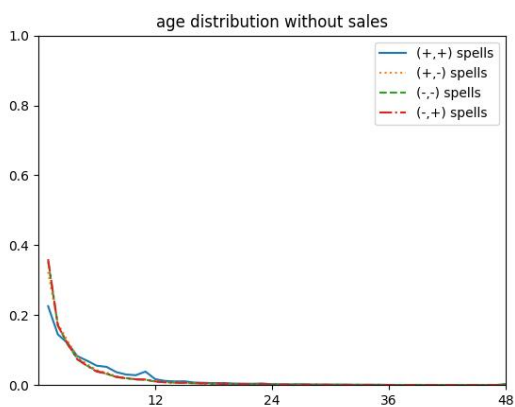
post-crisis	0.34	0.55	0.58	0.56
East Midlands(pre-)	0.47	0.77	0.78	0.93
post-crisis	0.33	0.58	0.58	0.56
West Midlands(pre-)	0.49	0.79	0.88	0.99
post-crisis	0.35	0.59	0.59	0.59
Yorkshire & Humber(pre-)	0.48	0.86	0.84	0.97
post-crisis	0.35	0.59	0.59	0.60
North West(pre-)	0.49	0.85	0.92	0.98
post-crisis	0.37	0.62	0.63	0.64
North(pre-)	0.52	0.82	0.79	1.03
post-crisis	0.31	0.51	0.53	0.51
Wales(pre-)	0.44	0.73	0.72	0.88
post-crisis	0.32	0.52	0.56	0.53
Scotland(pre-)	0.48	0.87	0.92	1.01
post-crisis	0.34	0.59	0.60	0.58
Northern Ireland(pre-)	0.42	0.78	0.74	0.90
post-crisis	0.35	0.61	0.57	0.57

DAF(skewness)	+,+	+,-	-,-	-,+
Unknown	6.96	6.24	6.13	5.34
London	6.79	5.96	4.81	4.98
South East	7.23	4.57	4.50	5.24
South West	7.29	6.22	5.43	5.31
East Anglia	8.39	6.94	5.82	6.61
East Midlands	6.99	5.61	6.07	5.66
West Midlands	8.65	4.97	5.18	4.57
Yorkshire & Humber	6.80	4.72	5.68	4.77
North West	8.03	5.20	4.70	5.39
North	8.54	5.40	6.54	5.03
Wales	8.63	6.33	7.26	6.38
Scotland	6.72	6.05	5.26	4.84
Northern Ireland	8.07	5.47	6.95	5.95

DAF(skewness)	+,+	+,-	-,-	-,+
Unknown(pre-)	5.11	7.03	5.89	5.78
post-crisis	7.89	3.53	3.19	2.22
London(pre-)	4.93	2.66	3.25	3.59
post-crisis	8.64	5.66	5.03	6.00
South East(pre-)	4.74	3.08	3.71	3.37
post-crisis	7.48	5.70	5.56	5.79

South West(pre-)	5.07	2.97	3.95	3.34
post-crisis	10.70	5.90	6.14	7.18
East Anglia(pre-)	5.34	3.84	4.98	2.45
post-crisis	9.54	7.35	7.13	6.49
East Midlands(pre-)	5.06	3.70	4.29	3.83
post-crisis	10.26	6.59	6.62	6.47
West Midlands(pre-)	4.72	3.26	3.14	3.01
post-crisis	9.50	6.60	6.71	7.18
Yorkshire & Humber(pre-)	4.99	3.83	3.66	3.41
post-crisis	9.61	6.35	6.49	6.40
North West(pre-)	4.55	3.72	2.73	3.15
post-crisis	7.93	5.05	5.38	5.79
North(pre-)	4.13	4.03	4.69	3.01
post-crisis	10.64	7.68	6.75	8.20
Wales(pre-)	4.43	4.27	4.16	3.22
post-crisis	9.66	8.74	8.05	7.36
Scotland(pre-)	4.83	3.66	3.11	2.93
post-crisis	9.90	6.66	6.33	7.42
Northern Ireland(pre-)	4.13	3.15	3.77	3.40
post-crisis	10.17	6.76	7.70	6.34

Appendix 11: Age Distribution and DAF Plots without Sales



Appendix 12: Cox Model Results

Time				
Dummies	coef	H.R.	p-value	
198803	0.0447	1.0457	0.0000	

	-		
198804	0.0895	0.9144	0.0000
	-		
198805	0.0506	0.9507	0.2654
	-		
198806	0.1253	0.8822	0.0000
	-		
198807	0.1183	0.8884	0.0000
	-		
198808	0.1389	0.8703	0.0000
198809	0.0117	1.0118	0.0000
198810	0.0210	1.0212	0.1542
198811	0.0514	1.0527	0.0000
198812	0.1160	1.1230	0.0000
	-		
198902	0.0778	0.9251	0.0000
198903	0.2180	1.2436	0.0000
198904	0.1235	1.1315	0.0000
198905	0.0228	1.0231	0.8142
198906	0.3012	1.3515	0.0000
198907	0.3720	1.4506	0.0000
198908	0.3053	1.3570	0.0000
	-		
198909	0.1776	0.8373	0.2251
	-		
198910	0.0974	0.9072	0.2638
	-		
198911	0.3185	0.7272	0.0000
	-		
198912	0.3617	0.6965	0.0000
	-		
199001	0.0220	0.9782	0.8507
199002	0.1148	1.1216	0.0000
199003	0.0459	1.0470	0.0000
199004	0.2504	1.2845	0.2218
199005	0.0444	1.0454	0.1016
199006	0.1442	1.1551	0.0000
199007	0.1271	1.1355	0.0000
199008	0.1710	1.1865	0.0000
	-		
199009	0.0915	0.9126	0.0000
	-		
199010	0.1382	0.8709	0.4613
	-		
199011	0.1622	0.8503	0.0000
199012	-	0.8203	0.0000

	0.1981		
	-		
199101	0.1938	0.8238	0.6940
	-		
199102	0.0734	0.9292	0.0000
199103	0.0445	1.0455	0.0000
199104	0.0027	1.0027	0.0000
199105	0.0809	1.0843	0.1130
199106	0.0243	1.0246	0.5891
	-		
199107	0.0035	0.9965	0.0000
199108	0.0144	1.0145	0.0000
199109	0.0063	1.0063	0.0000
199110	0.0358	1.0364	0.2630
199111	0.0117	1.0118	0.0000
	-		
199112	0.0160	0.9841	0.0000
	-		
199201	0.1414	0.8681	0.9707
	-		
199202	0.0035	0.9965	0.0000
	-		
199203	0.0278	0.9726	0.0000
	-		
199204	0.0291	0.9713	0.0000
	-		
199205	0.0015	0.9985	0.4392
199206	0.0224	1.0227	0.0000
199207	0.0250	1.0253	0.0000
	-		
199208	0.0922	0.9119	0.0000
199209	0.0303	1.0308	0.0000
199210	0.0904	1.0946	0.6669
199211	0.1606	1.1742	0.0000
	-		
199212	0.0042	0.9958	0.0000
199301	0.0608	1.0627	0.5294
	-		
199302	0.0599	0.9419	0.0000
199303	0.0504	1.0517	0.0000
	-		
199304	0.0120	0.9881	0.0000
199305	0.0297	1.0301	0.0625
199306	0.0106	1.0107	0.0000
	-		
199307	0.0125	0.9876	0.0000

199308	0.0303	1.0308	0.0000
	-		
199309	0.0031	0.9969	0.0000
	-		
199310	0.0371	0.9636	0.7381
199311	0.0215	1.0217	0.0000
	-		
199312	0.0067	0.9933	0.0000
	-		
199401	0.0342	0.9664	0.1885
199402	0.0615	1.0634	0.0000
199403	0.0163	1.0164	0.0000
	-		
199404	0.0413	0.9595	0.1694
	-		
199405	0.0037	0.9963	0.2597
	-		
199406	0.0253	0.9750	0.0000
	-		
199407	0.0688	0.9335	0.0000
	-		
199408	0.0481	0.9530	0.0000
	-		
199409	0.0260	0.9743	0.0000
199410	0.0474	1.0485	0.5358
199411	0.1697	1.1849	0.0000
199412	0.0122	1.0123	0.0000
	-		
199501	0.0480	0.9531	0.9247
	-		
199502	0.0170	0.9831	0.0000
199503	0.0531	1.0545	0.0000
	-		
199504	0.0076	0.9924	0.0000
199505	0.0085	1.0085	0.4250
	-		
199506	0.0008	0.9992	0.0000
	-		
199507	0.0157	0.9844	0.0000
	-		
199508	0.0350	0.9656	0.0000
	-		
199509	0.0490	0.9522	0.0000
199510	0.0450	1.0460	0.1245
199511	0.0948	1.0994	0.0000
199512	0.0317	1.0322	0.0000
199601	-	0.6476	0.8170

	0.4345		
	-		
199602	0.2574	0.7731	0.0000
199603	0.0170	1.0171	0.0000
	-		
199604	0.1259	0.8817	0.0000
	-		
199605	0.0013	0.9987	0.1581
	-		
199606	0.0523	0.9490	0.0000
199607	0.1456	1.1567	0.0000
199608	0.2254	1.2528	0.0000
199609	0.1446	1.1556	0.0000
199610	0.4185	1.5197	0.2550
199611	0.0380	1.0387	0.0000
	-		
199612	0.0064	0.9936	0.0000
	-		
199701	0.0022	0.9978	0.9521
	-		
199702	0.0442	0.9568	0.0000
	-		
199703	0.0607	0.9411	0.0000
	-		
199704	0.0783	0.9247	0.0000
	-		
199705	0.0756	0.9272	0.2270
	-		
199706	0.1686	0.8449	0.0000
	-		
199707	0.0340	0.9666	0.0000
199708	0.0311	1.0316	0.0000
199709	0.0577	1.0594	0.0000
199710	0.1616	1.1753	0.2255
	-		
199711	0.0754	0.9274	0.0000
199712	0.1779	1.1947	0.0000
199801	0.1172	1.1243	0.1204
199802	0.0252	1.0255	0.0000
199803	0.3427	1.4088	0.0000
199804	0.3790	1.4609	0.0000
199805	0.2823	1.3262	0.7799
	-		
199806	0.1280	0.8798	0.0000
	-		
199807	0.1148	0.8915	0.0000

	-		
199808	0.2967	0.7432	0.0000
	-		
199809	0.3864	0.6795	0.2645
199810	0.0030	1.0030	0.2043
199811	0.1185	1.1259	0.0000
199812	0.0899	1.0940	0.0000
199901	0.2064	1.2293	0.9273
199902	0.0410	1.0419	0.0000
199903	0.1092	1.1154	0.0000
199904	0.1615	1.1753	0.0000
199905	0.1625	1.1764	0.0291
	-		
199906	0.0790	0.9241	0.0000
	-		
199907	0.1639	0.8488	0.0000
	-		
199908	0.1968	0.8214	0.0000
	-		
199909	0.1546	0.8568	0.0000
	-		
199910	0.2128	0.8083	0.4131
	-		
199911	0.0860	0.9176	0.0000
199912	0.0779	1.0811	0.0000
200001	0.0153	1.0154	0.6699
200002	0.0643	1.0664	0.0000
200003	0.0684	1.0708	0.0000
	-		
200004	0.0007	0.9993	0.0000
200005	0.0309	1.0313	0.5934
200006	0.0237	1.0240	0.0000
200007	0.0578	1.0595	0.0000
200008	0.0118	1.0118	0.0000
	-		
200009	0.0437	0.9572	0.0000
	-		
200010	0.1145	0.8918	0.4160
200011	0.0026	1.0026	0.0000
200012	0.0066	1.0066	0.0000
	-		
200101	0.0207	0.9795	0.7168
	-		
200102	0.0129	0.9872	0.0000
200103	0.0709	1.0734	0.0000
200104	0.0038	1.0038	0.0000

	-		
200105	0.0954	0.9090	0.1611
200106	0.0036	1.0036	0.0000
200107	0.0735	1.0763	0.0000
200108	0.1789	1.1959	0.0000
200109	0.0293	1.0297	0.0000
200110	0.0260	1.0264	0.4894
	-		
200111	0.0660	0.9362	0.0000
200112	0.0298	1.0302	0.0000
200201	0.0362	1.0369	0.3360
	-		
200202	0.0201	0.9801	0.0000
200203	0.0310	1.0315	0.0000
200204	0.0188	1.0190	0.0000
	-		
200205	0.0088	0.9912	0.6800
	-		
200206	0.0218	0.9785	0.0000
	-		
200207	0.0444	0.9565	0.0000
200208	0.0624	1.0644	0.0000
	-		
200209	0.0465	0.9545	0.0000
	-		
200210	0.0035	0.9965	0.6050
200211	0.0451	1.0461	0.0000
200212	0.0210	1.0212	0.0000
	-		
200301	0.0462	0.9549	0.2378
	-		
200302	0.0206	0.9796	0.0000
	-		
200303	0.0674	0.9348	0.0000
	-		
200304	0.1047	0.9006	0.0000
	-		
200305	0.0783	0.9247	0.4821
	-		
200306	0.0348	0.9658	0.0000
200307	0.0003	1.0003	0.0000
200308	0.1776	1.1944	0.0000
200309	0.0131	1.0132	0.0000
	-		
200310	0.0788	0.9242	0.3550
	-		
200311	0.0228	0.9774	0.2264

200312	0.0875	1.0914	0.0000
	-		
200401	0.0485	0.9527	0.1251
200402	0.0342	1.0348	0.0000
200403	0.0034	1.0034	0.0000
200404	0.0254	1.0257	0.0000
200405	0.0137	1.0138	0.6769
200406	0.0002	1.0002	0.0000
200407	0.0087	1.0087	0.0000
200408	0.0918	1.0961	0.0000
200409	0.0441	1.0451	0.0000
	-		
200410	0.4064	0.6661	0.3134
	-		
200411	0.2245	0.7989	0.0000
200412	0.0535	1.0549	0.0000
	-		
200501	0.1414	0.8681	0.1115
	-		
200502	0.0394	0.9614	0.0000
	-		
200503	0.0718	0.9307	0.0000
200504	0.1034	1.1090	0.0000
200505	0.2703	1.3104	0.3514
200506	0.1530	1.1653	0.0000
200507	0.4022	1.4951	0.0000
200508	0.0267	1.0271	0.0000
	-		
200509	0.0164	0.9838	0.0000
200510	0.0777	1.0808	0.0302
	-		
200511	0.0645	0.9375	0.0000
	-		
200512	0.0904	0.9135	0.0000
	-		
200601	0.1521	0.8589	0.1826
	-		
200602	0.0959	0.9085	0.0000
	-		
200603	0.1433	0.8665	0.0000
200604	0.0147	1.0148	0.0000
	-		
200605	0.0153	0.9848	0.1717
200606	0.0467	1.0478	0.0000
200607	0.1253	1.1335	0.0000
200608	-	0.9596	0.0000

	0.0413		
200609	0.2429	1.2749	0.0000
200610	0.1081	1.1141	0.2505
200611	0.0027	1.0027	0.0000
200612	0.3080	1.3607	0.0000
200701	0.3641	1.4392	0.7096
200702	0.3533	1.4237	0.0000
	-		
200703	0.1441	0.8658	0.0000
	-		
200704	0.0903	0.9137	0.0000
	-		
200705	0.3195	0.7265	0.0292
	-		
200706	0.3864	0.6795	0.0000
	-		
200707	0.0226	0.9776	0.0000
200708	0.0837	1.0873	0.0000
200709	0.0049	1.0049	0.0000
200710	0.2425	1.2745	0.6867
200711	0.0202	1.0204	0.0000
200712	0.1401	1.1504	0.0000
200801	0.1331	1.1424	0.8124
200802	0.1596	1.1730	0.0000
	-		
200803	0.1072	0.8983	0.0000
	-		
200804	0.1651	0.8478	0.0000
	-		
200805	0.1708	0.8430	0.6585
	-		
200806	0.1653	0.8476	0.0000
	-		
200807	0.2326	0.7925	0.0000
	-		
200808	0.1092	0.8965	0.0000
200809	0.0187	1.0189	0.0000
	-		
200810	0.0422	0.9587	0.0000
200811	0.0448	1.0458	0.0000
	-		
200812	0.0004	0.9996	0.0000
200901	0.0022	1.0022	0.0000
200902	0.0512	1.0526	0.0000
200903	0.0439	1.0448	0.0000
200904	0.0160	1.0161	0.0000

200905	0.0302	1.0307	0.0000
200906	0.0085	1.0086	0.0000
	-		
200907	0.1909	0.8262	0.0000
	-		
200908	0.0295	0.9709	0.0000
	-		
200909	0.0730	0.9296	0.0000
	-		
200910	0.0551	0.9464	0.0000
	-		
200911	0.0194	0.9808	0.0000
200912	0.0040	1.0040	0.0000
201001	0.0231	1.0233	0.0000
	-		
201002	0.1274	0.8804	0.0000
201003	0.0454	1.0464	0.0000
201004	0.1236	1.1315	0.0000
201005	0.1880	1.2069	0.0000
	-		
201006	0.0063	0.9938	0.0000
201007	0.0718	1.0744	0.0000
	-		
201008	0.0318	0.9687	0.0000
201009	0.0282	1.0286	0.0000
201010	0.0175	1.0177	0.0000
201011	0.0072	1.0072	0.0000
201012	0.0602	1.0621	0.0000
201101	0.0219	1.0221	0.0000
201102	0.0678	1.0702	0.0000
	-		
201103	0.0159	0.9842	0.0000
	-		
201104	0.0053	0.9947	0.0000
	-		
201105	0.0180	0.9821	0.0000
201106	0.0053	1.0054	0.0000
	-		
201107	0.0527	0.9487	0.0000
201108	0.1095	1.1158	0.0000
201109	0.0110	1.0111	0.0000
	-		
201110	0.0646	0.9374	0.0000
	-		
201111	0.0317	0.9688	0.0000
201112	-	0.9905	0.0000

	0.0096		
	-		
201201	0.0929	0.9113	0.0000
	-		
201202	0.0690	0.9333	0.0000
	-		
201203	0.0585	0.9432	0.0000
	-		
201204	0.0020	0.9980	0.0000
201205	0.1855	1.2038	0.0000
	-		
201206	0.0013	0.9987	0.0000
	-		
201207	0.0106	0.9895	0.0000
	-		
201208	0.0473	0.9538	0.0000
201209	0.0752	1.0781	0.0000
201210	0.0225	1.0228	0.0000
201211	0.0456	1.0466	0.0000
	-		
201212	0.0069	0.9931	0.0000
201301	0.0215	1.0217	0.0000
	-		
201302	0.0481	0.9530	0.0000
	-		
201303	0.0199	0.9803	0.0000
201304	0.0417	1.0426	0.0000
201305	0.1212	1.1288	0.0000
201306	0.0064	1.0064	0.0000
	-		
201307	0.4096	0.6639	0.0000
	-		
201308	0.2540	0.7757	0.0000
201309	0.0490	1.0502	0.0000
	-		
201310	0.1219	0.8852	0.0000
201311	0.0197	1.0199	0.0000
	-		
201312	0.0293	0.9711	0.0000
201401	0.1393	1.1494	0.0000
201402	0.2549	1.2903	0.0000
201403	0.1541	1.1666	0.0000
201404	0.3726	1.4514	0.0000
201405	0.0258	1.0262	0.0000
201406	0.0394	1.0402	0.0000
201407	0.0278	1.0282	0.0000

	-		
201408	0.1182	0.8886	0.0000
	-		
201409	0.0909	0.9131	0.0000
	-		
201410	0.0809	0.9223	0.0000
	-		
201411	0.0976	0.9070	0.0000
	-		
201412	0.1116	0.8944	0.0000
	-		
201501	0.0334	0.9672	0.0000
201502	0.0332	1.0337	0.0000
201503	0.0970	1.1019	0.0000
201504	0.0666	1.0688	0.0000
	-		
201505	0.0499	0.9514	0.0000
201506	0.1987	1.2198	0.0000
201507	0.1723	1.1880	0.0000
201508	0.0156	1.0157	0.0000
201509	0.3428	1.4088	0.0000
201510	0.3829	1.4665	0.0000
201511	0.3545	1.4255	0.0000
	-		
201512	0.2265	0.7973	0.0000
	-		
201601	0.0802	0.9229	0.0000
	-		
201602	0.3185	0.7273	0.0000
	-		
201603	0.3729	0.6887	0.0000
201604	0.0071	1.0072	0.0000
201605	0.1496	1.1614	0.0000
201606	0.0943	1.0988	0.0000
201607	0.2615	1.2989	0.0000
201608	0.0156	1.0157	0.0000
201609	0.1367	1.1465	0.0000
201610	0.1613	1.1751	0.0000
201611	0.1848	1.2029	0.0000
	-		
201612	0.0747	0.9280	0.0000
	-		
201701	0.1629	0.8497	0.0000
	-		
201702	0.1501	0.8606	0.0000
201703	-	0.8401	0.0000

	0.1743		
	-		
201704	0.1962	0.8218	0.0000
	-		
201705	0.1060	0.8995	0.0000
201706	0.0096	1.0097	0.0000
201707	0.0479	1.0491	0.0000
201708	0.0796	1.0828	0.0000
201709	0.0283	1.0287	0.0000
	-		
201710	0.0380	0.9627	0.0000
201711	0.0290	1.0295	0.0000
201712	0.0443	1.0453	0.0000
201801	0.0784	1.0816	0.0000
201802	0.0494	1.0506	0.0000
	-		
201803	0.0018	0.9982	0.0000
	-		
201804	0.1241	0.8833	0.0000
201805	0.0340	1.0346	0.0000
	-		
201806	0.0208	0.9794	0.0000
	-		
201807	0.0619	0.9399	0.0000
	-		
201808	0.0046	0.9954	0.0000
201809	0.0064	1.0065	0.0000
201810	0.0100	1.0101	0.0000
	-		
201811	0.0613	0.9406	0.0000
201812	0.0558	1.0574	0.0000
201901	0.0794	1.0827	0.0000
201902	0.1782	1.1950	0.0000
	-		
201903	0.0276	0.9727	0.0000
201904	0.0501	1.0514	0.0000
	-		
201905	0.1039	0.9013	0.0000
201906	0.0469	1.0480	0.0000
201907	0.0224	1.0227	0.0000
	-		
201908	0.0136	0.9865	0.0000
	-		
201909	0.0116	0.9885	0.0000
	-		
201910	0.0046	0.9954	0.0000

	-			
201911	0.0127	0.9874	0.0000	
	-			
201912	0.0503	0.9509	0.0000	

Time and Sectoral Dummies	coef	H.R.	p-value
198803	0.0064	1.0064	0.0000
	-		
198804	0.0655	0.9366	0.0000
	-		
198805	0.0327	0.9678	0.3200
	-		
198806	0.0837	0.9197	0.4427
	-		
198807	0.1153	0.8911	0.0000
	-		
198808	0.0935	0.9107	0.0000
198809	0.0435	1.0445	0.2898
198810	0.0405	1.0413	0.4805
198811	0.0757	1.0787	0.8233
198812	0.0756	1.0786	0.0000
	-		
198902	0.0851	0.9184	0.0000
198903	0.2215	1.2479	0.0000
198904	0.1118	1.1183	0.0000
	-		
198905	0.0146	0.9855	0.5506
198906	0.2575	1.2936	0.3704
198907	0.3725	1.4514	0.0000
198908	0.2988	1.3482	0.0000
	-		
198909	0.2071	0.8129	0.2831
	-		
198910	0.0590	0.9427	0.1818
	-		
198911	0.3023	0.7391	0.1136
	-		
198912	0.3305	0.7186	0.0000
	-		
199001	0.0095	0.9905	0.0000
199002	0.1581	1.1713	0.0000
199003	0.0790	1.0822	0.0000
199004	0.2051	1.2277	0.3496
199005	0.0492	1.0504	0.7941

199006	0.1784	1.1953	0.2963
199007	0.1654	1.1799	0.0000
199008	0.2205	1.2467	0.0000
	-		
199009	0.1378	0.8713	0.0000
	-		
199010	0.1581	0.8538	0.0000
	-		
199011	0.1440	0.8659	0.0000
	-		
199012	0.2462	0.7817	0.0000
	-		
199101	0.1652	0.8478	0.0000
	-		
199102	0.0767	0.9262	0.0000
199103	0.0790	1.0822	0.0000
	-		
199104	0.0411	0.9597	0.2545
199105	0.1214	1.1291	0.5259
199106	0.0310	1.0314	0.0000
	-		
199107	0.0373	0.9634	0.0000
199108	0.0502	1.0515	0.6442
199109	0.0065	1.0065	0.7506
	-		
199110	0.0135	0.9866	0.3729
199111	0.0323	1.0328	0.0000
199112	0.0013	1.0013	0.0000
	-		
199201	0.1734	0.8408	0.0000
199202	0.0376	1.0383	0.7000
	-		
199203	0.0377	0.9630	0.6789
	-		
199204	0.0563	0.9453	0.3272
199205	0.0430	1.0440	0.0000
199206	0.0499	1.0512	0.7606
	-		
199207	0.0188	0.9813	0.4755
	-		
199208	0.0716	0.9309	0.4374
199209	0.0073	1.0074	0.0000
199210	0.0712	1.0738	0.3522
199211	0.1995	1.2208	0.0000
199212	0.0224	1.0227	0.0000
199301	0.0452	1.0463	0.0000

	-		
199302	0.0649	0.9371	0.2839
199303	0.0416	1.0425	0.3946
	-		
199304	0.0336	0.9669	0.6707
199305	0.0019	1.0019	0.6410
199306	0.0081	1.0082	0.0000
199307	0.0032	1.0033	0.0000
199308	0.0590	1.0608	0.0000
199309	0.0216	1.0218	0.0000
	-		
199310	0.0751	0.9277	0.0000
199311	0.0162	1.0163	0.0000
199312	0.0137	1.0138	0.1344
	-		
199401	0.0395	0.9612	0.3396
199402	0.0504	1.0517	0.2862
199403	0.0520	1.0534	0.2518
	-		
199404	0.0240	0.9763	0.0000
	-		
199405	0.0214	0.9788	0.2825
	-		
199406	0.0479	0.9532	0.0000
	-		
199407	0.0657	0.9365	0.0000
	-		
199408	0.0584	0.9432	0.0000
	-		
199409	0.0003	0.9997	0.0000
199410	0.0582	1.0599	0.4971
199411	0.1835	1.2014	0.5226
199412	0.0392	1.0399	0.0000
	-		
199501	0.0496	0.9516	0.0000
	-		
199502	0.0516	0.9497	0.0000
199503	0.1001	1.1053	0.0000
199504	0.0306	1.0310	0.0000
199505	0.0446	1.0456	0.5976
199506	0.0122	1.0123	0.2185
	-		
199507	0.0288	0.9717	0.0000
	-		
199508	0.0073	0.9927	0.0000
199509	-	0.9364	0.0000

	0.0657		
199510	0.0907	1.0950	0.3554
199511	0.0827	1.0862	0.2053
199512	0.0032	1.0032	0.3457
	-		
199601	0.4477	0.6391	0.0000
	-		
199602	0.2281	0.7960	0.0000
199603	0.0584	1.0602	0.0000
	-		
199604	0.1228	0.8844	0.3257
	-		
199605	0.0242	0.9761	0.8378
	-		
199606	0.0245	0.9758	0.0000
199607	0.1634	1.1775	0.0000
199608	0.2084	1.2317	0.0000
199609	0.1540	1.1665	0.6464
199610	0.3997	1.4913	0.1944
199611	0.0085	1.0086	0.0000
	-		
199612	0.0193	0.9809	0.0000
199701	0.0113	1.0113	0.0000
	-		
199702	0.0067	0.9933	0.0000
	-		
199703	0.0867	0.9170	0.0000
	-		
199704	0.0586	0.9431	0.2092
	-		
199705	0.0407	0.9601	0.4030
	-		
199706	0.2098	0.8108	0.2673
	-		
199707	0.0522	0.9491	0.0000
199708	0.0293	1.0297	0.0000
199709	0.1033	1.1088	0.0000
199710	0.1875	1.2062	0.2823
	-		
199711	0.0820	0.9212	0.7898
199712	0.1405	1.1508	0.0000
199801	0.1350	1.1445	0.0000
199802	0.0341	1.0347	0.0000
199803	0.3245	1.3834	0.0000
199804	0.3502	1.4193	0.6650
199805	0.3057	1.3576	0.3504

	-		
199806	0.1632	0.8494	0.8130
	-		
199807	0.1573	0.8545	0.0000
	-		
199808	0.2657	0.7666	0.0000
	-		
199809	0.4266	0.6527	0.1115
	-		
199810	0.0328	0.9677	0.1918
199811	0.1284	1.1370	0.0000
199812	0.0495	1.0507	0.0000
199901	0.2229	1.2497	0.0000
199902	0.0041	1.0041	0.0000
199903	0.0839	1.0875	0.0000
199904	0.2067	1.2296	0.0000
199905	0.1145	1.1213	0.8613
	-		
199906	0.1248	0.8826	0.7788
	-		
199907	0.1559	0.8556	0.0000
	-		
199908	0.1922	0.8251	0.0000
	-		
199909	0.1091	0.8967	0.0000
	-		
199910	0.2424	0.7848	0.7900
	-		
199911	0.0573	0.9443	0.2446
199912	0.1141	1.1209	0.1740
200001	0.0585	1.0603	0.0000
200002	0.0229	1.0232	0.0000
200003	0.0206	1.0208	0.0000
200004	0.0475	1.0487	0.0000
200005	0.0550	1.0565	0.6155
200006	0.0040	1.0040	0.2766
200007	0.0859	1.0897	0.0000
	-		
200008	0.0143	0.9858	0.0000
	-		
200009	0.0626	0.9394	0.0000
	-		
200010	0.1136	0.8926	0.6394
	-		
200011	0.0193	0.9809	0.8140
200012	0.0472	1.0483	0.0000

	-		
200101	0.0561	0.9454	0.0000
	-		
200102	0.0006	0.9994	0.0000
200103	0.0513	1.0527	0.0000
200104	0.0529	1.0543	0.0000
	-		
200105	0.0639	0.9381	0.3709
	-		
200106	0.0423	0.9586	0.5949
200107	0.0542	1.0556	0.0000
200108	0.1907	1.2101	0.0000
200109	0.0757	1.0787	0.0000
200110	0.0106	1.0106	0.7166
	-		
200111	0.0669	0.9353	0.4287
200112	0.0282	1.0286	0.0000
	-		
200201	0.0107	0.9893	0.0000
200202	0.0046	1.0046	0.0000
	-		
200203	0.0010	0.9990	0.0000
200204	0.0568	1.0584	0.0000
	-		
200205	0.0390	0.9618	0.5479
200206	0.0212	1.0214	0.3864
	-		
200207	0.0291	0.9713	0.0000
200208	0.0323	1.0328	0.0000
	-		
200209	0.0920	0.9121	0.1158
200210	0.0459	1.0470	0.2567
200211	0.0830	1.0865	0.0000
	-		
200212	0.0089	0.9911	0.0000
	-		
200301	0.0042	0.9958	0.4571
	-		
200302	0.0334	0.9671	0.0000
	-		
200303	0.0477	0.9534	0.0000
	-		
200304	0.0780	0.9250	0.0000
	-		
200305	0.0908	0.9132	0.1154
	-		
200306	0.0688	0.9335	0.1583

200307	0.0175	1.0177	0.4498
200308	0.1472	1.1586	0.0000
	-		
200309	0.0337	0.9669	0.0000
	-		
200310	0.0376	0.9631	0.0000
	-		
200311	0.0674	0.9348	0.7067
200312	0.0703	1.0728	0.2865
	-		
200401	0.0088	0.9912	0.0000
200402	0.0417	1.0426	0.0000
	-		
200403	0.0300	0.9705	0.0000
200404	0.0416	1.0425	0.0000
	-		
200405	0.0122	0.9879	0.0000
	-		
200406	0.0026	0.9974	0.0000
200407	0.0030	1.0031	0.7208
200408	0.0664	1.0687	0.4411
200409	0.0333	1.0339	0.2338
	-		
200410	0.3660	0.6935	0.3623
	-		
200411	0.2075	0.8126	0.0000
200412	0.0884	1.0925	0.0000
	-		
200501	0.1342	0.8744	0.0000
	-		
200502	0.0263	0.9740	0.0000
	-		
200503	0.0392	0.9615	0.0000
200504	0.0541	1.0556	0.0000
200505	0.2548	1.2902	0.7508
200506	0.1809	1.1983	0.1129
200507	0.4369	1.5479	0.0000
200508	0.0756	1.0785	0.0000
	-		
200509	0.0403	0.9605	0.0000
200510	0.0419	1.0428	0.2758
	-		
200511	0.1004	0.9045	0.5092
	-		
200512	0.0692	0.9331	0.5287
	-		
200601	0.1213	0.8858	0.0000

	-		
200602	0.0980	0.9067	0.0000
	-		
200603	0.1736	0.8407	0.0000
200604	0.0310	1.0315	0.0000
200605	0.0183	1.0184	0.6735
200606	0.0249	1.0253	0.4278
200607	0.1205	1.1281	0.0000
	-		
200608	0.0227	0.9776	0.0000
200609	0.2460	1.2789	0.0000
200610	0.1361	1.1458	0.1809
200611	0.0389	1.0397	0.4195
200612	0.2872	1.3328	0.0000
200701	0.3501	1.4192	0.0000
200702	0.3139	1.3687	0.0000
	-		
200703	0.0978	0.9068	0.0000
	-		
200704	0.1087	0.8970	0.0000
	-		
200705	0.3562	0.7004	0.6789
	-		
200706	0.3412	0.7109	0.2333
	-		
200707	0.0362	0.9644	0.0000
200708	0.0898	1.0939	0.0000
200709	0.0225	1.0227	0.0000
200710	0.2833	1.3274	0.1845
	-		
200711	0.0135	0.9865	0.3416
200712	0.1035	1.1090	0.0000
200801	0.1331	1.1424	0.0000
200802	0.1596	1.1730	0.0000
	-		
200803	0.1072	0.8983	0.0000
	-		
200804	0.1651	0.8478	0.0000
	-		
200805	0.1708	0.8430	0.2251
	-		
200806	0.1653	0.8476	0.4672
	-		
200807	0.2326	0.7925	0.4027
	-		
200808	0.1092	0.8965	0.0000

200809	0.0187	1.0189	0.0000
	-		
200810	0.0422	0.9587	0.0000
200811	0.0448	1.0458	0.0000
	-		
200812	0.0004	0.9996	0.0000
200901	0.0022	1.0022	0.0000
200902	0.0512	1.0526	0.0000
200903	0.0439	1.0448	0.0000
200904	0.0160	1.0161	0.0000
200905	0.0302	1.0307	0.7935
200906	0.0085	1.0086	0.5542
	-		
200907	0.1909	0.8262	0.0000
	-		
200908	0.0295	0.9709	0.0000
	-		
200909	0.0730	0.9296	0.0000
	-		
200910	0.0551	0.9464	0.0000
	-		
200911	0.0194	0.9808	0.0000
200912	0.0040	1.0040	0.0000
201001	0.0231	1.0233	0.0000
	-		
201002	0.1274	0.8804	0.0000
201003	0.0454	1.0464	0.0000
201004	0.1236	1.1315	0.0000
201005	0.1880	1.2069	0.8216
	-		
201006	0.0063	0.9938	0.0000
201007	0.0718	1.0744	0.0000
	-		
201008	0.0318	0.9687	0.0000
201009	0.0282	1.0286	0.0000
201010	0.0175	1.0177	0.0000
201011	0.0072	1.0072	0.0000
201012	0.0602	1.0621	0.0000
201101	0.0219	1.0221	0.0000
201102	0.0678	1.0702	0.0000
	-		
201103	0.0159	0.9842	0.0000
	-		
201104	0.0053	0.9947	0.0000
	-		
201105	0.0180	0.9821	0.8236

201106	0.0053	1.0054	0.0000
	-		
201107	0.0527	0.9487	0.0000
201108	0.1095	1.1158	0.0000
201109	0.0110	1.0111	0.0000
	-		
201110	0.0646	0.9374	0.0000
	-		
201111	0.0317	0.9688	0.0000
	-		
201112	0.0096	0.9905	0.0000
	-		
201201	0.0929	0.9113	0.0000
	-		
201202	0.0690	0.9333	0.0000
	-		
201203	0.0585	0.9432	0.0000
	-		
201204	0.0020	0.9980	0.0000
201205	0.1855	1.2038	0.0000
	-		
201206	0.0013	0.9987	0.0000
	-		
201207	0.0106	0.9895	0.0000
	-		
201208	0.0473	0.9538	0.0000
201209	0.0752	1.0781	0.0000
201210	0.0225	1.0228	0.7241
201211	0.0456	1.0466	0.0000
	-		
201212	0.0069	0.9931	0.0000
201301	0.0215	1.0217	0.0000
	-		
201302	0.0481	0.9530	0.0000
	-		
201303	0.0199	0.9803	0.0000
201304	0.0417	1.0426	0.0000
201305	0.1212	1.1288	0.7082
201306	0.0064	1.0064	0.0000
	-		
201307	0.4096	0.6639	0.0000
	-		
201308	0.2540	0.7757	0.0000
201309	0.0490	1.0502	0.6299
	-		
201310	0.1219	0.8852	0.0000
201311	0.0197	1.0199	0.0000

	-		
201312	0.0293	0.9711	0.0000
201401	0.1393	1.1494	0.0000
201402	0.2549	1.2903	0.0000
201403	0.1541	1.1666	0.0000
201404	0.3726	1.4514	0.0000
201405	0.0258	1.0262	0.0000
201406	0.0394	1.0402	0.0000
201407	0.0278	1.0282	0.0000
	-		
201408	0.1182	0.8886	0.0000
	-		
201409	0.0909	0.9131	0.0000
	-		
201410	0.0809	0.9223	0.0000
	-		
201411	0.0976	0.9070	0.0000
	-		
201412	0.1116	0.8944	0.2313
	-		
201501	0.0334	0.9672	0.0000
201502	0.0332	1.0337	0.0000
201503	0.0970	1.1019	0.0000
201504	0.0666	1.0688	0.0000
	-		
201505	0.0499	0.9514	0.0000
201506	0.1987	1.2198	0.0000
201507	0.1723	1.1880	0.0000
201508	0.0156	1.0157	0.5840
201509	0.3428	1.4088	0.0000
201510	0.3829	1.4665	0.0000
201511	0.3545	1.4255	0.0000
	-		
201512	0.2265	0.7973	0.0000
	-		
201601	0.0802	0.9229	0.0000
	-		
201602	0.3185	0.7273	0.0000
	-		
201603	0.3729	0.6887	0.0000
201604	0.0071	1.0072	0.0000
201605	0.1496	1.1614	0.5740
201606	0.0943	1.0988	0.0000
201607	0.2615	1.2989	0.0000
201608	0.0156	1.0157	0.0000
201609	0.1367	1.1465	0.0000

201610	0.1613	1.1751	0.0000
201611	0.1848	1.2029	0.0000
	-		
201612	0.0747	0.9280	0.4999
	-		
201701	0.1629	0.8497	0.0000
	-		
201702	0.1501	0.8606	0.0000
	-		
201703	0.1743	0.8401	0.0000
	-		
201704	0.1962	0.8218	0.0000
	-		
201705	0.1060	0.8995	0.0000
201706	0.0096	1.0097	0.0000
201707	0.0479	1.0491	0.0000
201708	0.0796	1.0828	0.0000
201709	0.0283	1.0287	0.5623
	-		
201710	0.0380	0.9627	0.0000
201711	0.0290	1.0295	0.0000
201712	0.0443	1.0453	0.0000
201801	0.0784	1.0816	0.0000
201802	0.0494	1.0506	0.0000
	-		
201803	0.0018	0.9982	0.0000
	-		
201804	0.1241	0.8833	0.0000
201805	0.0340	1.0346	0.0000
	-		
201806	0.0208	0.9794	0.0000
	-		
201807	0.0619	0.9399	0.0000
	-		
201808	0.0046	0.9954	0.0000
201809	0.0064	1.0065	0.0000
201810	0.0100	1.0101	0.4912
	-		
201811	0.0613	0.9406	0.0000
201812	0.0558	1.0574	0.0000
201901	0.0794	1.0827	0.0000
201902	0.1782	1.1950	0.0000
	-		
201903	0.0276	0.9727	0.0000
201904	0.0501	1.0514	0.0000
201905	-	0.9013	0.0000

	0.1039			
201906	0.0469	1.0480	0.0000	
201907	0.0224	1.0227	0.0000	
	-			
201908	0.0136	0.9865	0.0000	
	-			
201909	0.0116	0.9885	0.0000	
	-			
201910	0.0046	0.9954	0.0000	
	-			
201911	0.0127	0.9874	0.0000	
	-			
201912	0.0503	0.9509	0.0000	
Non-Alcoholic/Beverage	0.0798	1.0831	0.0071	
Energy	0.0684	1.0708	0.2654	
Non-Energy	0.0075	1.0075	0.0000	
	-			
Housing	0.0926	0.9116	0.0000	
	-			
Transport/Travel	0.1582	0.8537	0.0000	
Communication	0.1045	1.1102	0.1124	
	-			
Recreational/Personal	0.1289	0.8791	0.0000	
Miscellaneous	0.0148	1.0149	0.0000	

test for proportional hazard assumption covariate	p-value
SE	0.301516
SW	0
East_Anglia	0.50107
East_Midlands	0
West_Midlands	0
Yorks_Humber	0.435819
NW	0
North	0
Wales	0.592853
Scotland	0
NI	0
FEB	0.762265
MAR	0
APR	0
MAY	0.248049
JUN	0

JUL	0.490704
AUG	0
SEP	0
OCT	0
NOV	0.195693
DEC	0
R	0.443876
wage	0
Alcoholic/Beverage	0.146436
Energy	0.805893
Non-Energy	0.461587
Housing	0.582483
Transport/Travel	0.711625
Communication	0.221974
Recreational/Personal	0.141799
Miscellaneous	0.275645
SD	0.642235
D	0
independent	0.143231
tax	0
NX	0.682569
nine_ending	0.345696
zero_ending	0.662788
sales	0.356426
market_share	0
increase_increase	0
increase_decrease	0
decrease_decrease	0.236616
oil	0.826496
oil_1	0.812784
oil_2	0.247179
oil_3	0
oil_4	0.774439
oil_5	0.26518
oil_6	0
oil_7	0
oil_8	0.474314
oil_9	0
oil_10	0.543817
oil_11	0
oil_12	0
inflation_1	0.335178
inflation_2	0.412376

inflation_3	0
inflation_4	0.114933
inflation_5	0.292029
inflation_6	0.778533
inflation_7	0.200741
inflation_8	0.882521
inflation_9	0.858813
inflation_10	0
inflation_11	0
inflation_12	0
R_1	0.701534
R_2	0.275488
R_3	0
R_4	0.602231
R_5	0.145345
R_6	0
R_7	0.631166
R_8	0
R_9	0
R_10	0.365156
R_11	0
R_12	0
Food/Non_alcoholic_inflation_1	0.423179
Food/Non_alcoholic_inflation_2	0.265343
Food/Non_alcoholic_inflation_3	0.649652
Food/Non_alcoholic_inflation_4	0.581285
Food/Non_alcoholic_inflation_5	0
Food/Non_alcoholic_inflation_6	0.239579
Food/Non_alcoholic_inflation_7	0
Food/Non_alcoholic_inflation_8	0
Food/Non_alcoholic_inflation_9	0
Food/Non_alcoholic_inflation_10	0
Food/Non_alcoholic_inflation_11	0
Food/Non_alcoholic_inflation_12	0
Alcoholic_inflation_1	0
Alcoholic_inflation_2	0.172216
Alcoholic_inflation_3	0.449906
Alcoholic_inflation_4	0.151658
Alcoholic_inflation_5	0
Alcoholic_inflation_6	0
Alcoholic_inflation_7	0.802536
Alcoholic_inflation_8	0.197246
Alcoholic_inflation_9	0.633702

Alcoholic_inflation_10	0
Alcoholic_inflation_11	0
Alcoholic_inflation_12	0
Energy_inflation_1	0
Energy_inflation_2	0
Energy_inflation_3	0.202438
Energy_inflation_4	0.639703
Energy_inflation_5	0.293856
Energy_inflation_6	0.778972
Energy_inflation_7	0.140406
Energy_inflation_8	0
Energy_inflation_9	0.692817
Energy_inflation_10	0
Energy_inflation_11	0
Energy_inflation_12	0
Non_energy_goods_inflation_1	0
Non_energy_goods_inflation_2	0.874771
Non_energy_goods_inflation_3	0
Non_energy_goods_inflation_4	0
Non_energy_goods_inflation_5	0
Non_energy_goods_inflation_6	0.440648
Non_energy_goods_inflation_7	0
Non_energy_goods_inflation_8	0
Non_energy_goods_inflation_9	0
Non_energy_goods_inflation_10	0
Non_energy_goods_inflation_11	0
Non_energy_goods_inflation_12	0
Housing_services_inflation_1	0
Housing_services_inflation_2	0.139788
Housing_services_inflation_3	0.558082
Housing_services_inflation_4	0
Housing_services_inflation_5	0.409522
Housing_services_inflation_6	0
Housing_services_inflation_7	0.743082
Housing_services_inflation_8	0
Housing_services_inflation_9	0
Housing_services_inflation_10	0
Housing_services_inflation_11	0
Housing_services_inflation_12	0
Transport/travel_services_inflation_1	0
Transport/travel_services_inflation_2	0
Transport/travel_services_inflation_3	0.583031
Transport/travel_services_inflation_4	0

Transport/travel_services_inflation_5	0
Transport/travel_services_inflation_6	0.355087
Transport/travel_services_inflation_7	0
Transport/travel_services_inflation_8	0
Transport/travel_services_inflation_9	0
Transport/travel_services_inflation_10	0
Transport/travel_services_inflation_11	0
Transport/travel_services_inflation_12	0
Communication_inflation_1	0
Communication_inflation_2	0
Communication_inflation_3	0.894365
Communication_inflation_4	0
Communication_inflation_5	0.879548
Communication_inflation_6	0
Communication_inflation_7	0.822967
Communication_inflation_8	0
Communication_inflation_9	0
Communication_inflation_10	0
Communication_inflation_11	0
Communication_inflation_12	0
Recreational/personal_services_inflation_1	0
Recreational/personal_services_inflation_2	0
Recreational/personal_services_inflation_3	0.707256
Recreational/personal_services_inflation_4	0
Recreational/personal_services_inflation_5	0
Recreational/personal_services_inflation_6	0
Recreational/personal_services_inflation_7	0
Recreational/personal_services_inflation_8	0
Recreational/personal_services_inflation_9	0
Recreational/personal_services_inflation_10	0
Recreational/personal_services_inflation_11	0
Recreational/personal_services_inflation_12	0
Miscellaneous_services_inflation_1	0
Miscellaneous_services_inflation_2	0.692167
Miscellaneous_services_inflation_3	0.33755
Miscellaneous_services_inflation_4	0
Miscellaneous_services_inflation_5	0.273376
Miscellaneous_services_inflation_6	0
Miscellaneous_services_inflation_7	0.146166
Miscellaneous_services_inflation_8	0
Miscellaneous_services_inflation_9	0.265963
Miscellaneous_services_inflation_10	0
Miscellaneous_services_inflation_11	0

Miscellaneous_services_inflation_12	0
Food/Non_alcoholic_expenditure	0
Alcoholic_expenditure	0.488978
Energy_expenditure	0
Non_energy_goods_expenditure	0.237423
Housing_services_expenditure	0.693577
Transport/travel_services_expenditure	0.158283
Communication_expenditure	0.422869
Recreational/personal_services_expenditure	0.852225
Miscellaneous_services_expenditure	0

Cox Model Full Sample Results		
	with sales	full sample
		coef H.R.
SE		0.0408*** 1.0417***
SW		0.0102*** 1.0103***
East_Anglia		-0.0027 0.9973
East_Midlands		0.0059 1.0059**
West_Midlands		0.0168*** 1.017***
Yorks_Humber		0.0098*** 1.0098***
NW		0.0339*** 1.0345***
North		-0.0203*** 0.9799***
Wales		-0.031*** 0.9695***
Scotland		0.0151*** 1.0152***
NI		0.0098*** 1.0098***
FEB		-0.0192*** 0.9809***
MAR		0.0306*** 1.0311***
APR		-0.0209*** 0.9793***
MAY		0.0044 1.0044
JUN		0.017*** 1.0172***
JUL		0.0258*** 1.0262***
AUG		-0.0177*** 0.9824***
SEP		0.0134 1.0135**
OCT		-0.0012 0.9988
NOV		0.0488*** 1.05***
DEC		-0.0173*** 0.9828***
wage		0.205*** 1.2275***
Non-Alcoholic/Beverage		0.1173*** 1.1244***
Energy		0.0566*** 1.0583***

Non-Energy	-0.0175***	0.9827***
Housing	-0.004	0.996
Transport/Travel	-0.2493***	0.7794***
Communication	0.0785***	1.0817***
Recreational/Personal	-0.1896***	0.8273***
Miscellaneous	0.1115***	1.118***
SD	0.1359***	1.1456***
D	0.2189***	1.2447***
independent	0.0329***	1.0334***
tax	-0.6194***	0.5383***
NX	-0.0276***	0.9728***
nine_ending	-0.0011	0.9989
zero_ending	0.0129***	1.013***
sales	0.4486***	1.5661***
market_share	0.01***	1.01***
increase_increase	-0.2246***	0.7988***
increase_decrease	-0.0296***	0.9708***
decrease_decrease	-0.0119***	0.9881***
oil	0.0792***	1.0824***
oil_1	0.0015***	1.0015***
oil_2	0.0016***	1.0016***
oil_3	0.0007***	1.0007***
oil_4	0.0011***	1.0011***
oil_5	0.0004***	1.0004***
oil_6	-0.0003***	0.9997***
oil_7	0.0001	1.0001
oil_8	-0.0004***	0.9996***
oil_9	-0.0009***	0.9991***
oil_10	-0.001***	0.999***
oil_11	-0.0018***	0.9982***
oil_12	-0.0011***	0.9989***
inflation_1	-1.3878***	0.2496***
inflation_2	1.122***	3.0709***
inflation_3	4.5114***	91.0501***
inflation_4	2.4253***	11.3053***
inflation_5	0.3246	1.3835
inflation_6	-2.0694***	0.1263***
inflation_7	-0.7713	0.4624*
inflation_8	2.0066***	7.4383***
inflation_9	0.9658	2.6269**
inflation_10	0.8463	2.331**
inflation_11	-0.6547	0.5196
inflation_12	0.4162	1.5162

R	-0.2284***	0.7958***
R_1	-0.001***	0.999***
R_2	0.0001	1.0001
R_3	-0.0023***	0.9977***
R_4	-0.0015***	0.9985***
R_5	-0.0013***	0.9987***
R_6	0	1
R_7	-0.0008***	0.9992***
R_8	0.0015***	1.0015***
R_9	0.0004***	1.0004***
R_10	0.0011***	1.0011***
R_11	0.0021***	1.0021***
R_12	0.0009***	1.0009***
Food/Non_alcoholic_inflation_1	1.2401***	3.4559***
Food/Non_alcoholic_inflation_2	2.424***	11.2913***
Food/Non_alcoholic_inflation_3	-0.4432***	0.642***
Food/Non_alcoholic_inflation_4	1.8337***	6.2568***
Food/Non_alcoholic_inflation_5	1.4047***	4.0742***
Food/Non_alcoholic_inflation_6	1.6249***	5.0781***
Food/Non_alcoholic_inflation_7	-0.286	0.7513**
Food/Non_alcoholic_inflation_8	0.0547	1.0563
Food/Non_alcoholic_inflation_9	-0.9442***	0.389***
Food/Non_alcoholic_inflation_10	-0.4686***	0.6259***
Food/Non_alcoholic_inflation_11	0.1806	1.198
Food/Non_alcoholic_inflation_12	-0.2872	0.7503**
Alcoholic_inflation_1	-1.8084***	0.1639***
Alcoholic_inflation_2	-2.2913***	0.1011***
Alcoholic_inflation_3	-1.6443***	0.1931***
Alcoholic_inflation_4	-1.1141***	0.3282***
Alcoholic_inflation_5	-0.4541***	0.635***
Alcoholic_inflation_6	-0.2324	0.7926**
Alcoholic_inflation_7	0.2241	1.2512**
Alcoholic_inflation_8	1.1817***	3.2598***
Alcoholic_inflation_9	-0.1181	0.8886
Alcoholic_inflation_10	0.6936***	2.001***
Alcoholic_inflation_11	0.8118***	2.2519***
Alcoholic_inflation_12	-0.4866***	0.6147***
Energy_inflation_1	0.1999***	1.2213***
Energy_inflation_2	-0.6779***	0.5077***
Energy_inflation_3	-0.3351***	0.7153***
Energy_inflation_4	-0.0578	0.9438
Energy_inflation_5	0.1676***	1.1825***
Energy_inflation_6	0.7254***	2.0656***

Energy_inflation_7	0.8016***	2.2291***
Energy_inflation_8	-0.069	0.9333
Energy_inflation_9	0.074	1.0768
Energy_inflation_10	0.7121***	2.0382***
Energy_inflation_11	0.5681***	1.765***
Energy_inflation_12	0.0518	1.0531
Non_energy_goods_inflation_1	-0.0418	0.9591
Non_energy_goods_inflation_2	-0.4882***	0.6137***
Non_energy_goods_inflation_3	-0.5318***	0.5876***
Non_energy_goods_inflation_4	-0.3278***	0.7205***
Non_energy_goods_inflation_5	0.414***	1.5129***
Non_energy_goods_inflation_6	-0.6432***	0.5256***
Non_energy_goods_inflation_7	-0.3721***	0.6893***
Non_energy_goods_inflation_8	-0.0315	0.969
Non_energy_goods_inflation_9	-0.1807	0.8346
Non_energy_goods_inflation_10	-1.1231***	0.3253***
Non_energy_goods_inflation_11	-0.0493	0.9519
Non_energy_goods_inflation_12	-0.2154	0.8062*
Housing_services_inflation_1	-2.9671***	0.0515***
Housing_services_inflation_2	-3.9101***	0.02***
Housing_services_inflation_3	-2.2302***	0.1075***
Housing_services_inflation_4	1.0559***	2.8744***
Housing_services_inflation_5	1.4708***	4.3527***
Housing_services_inflation_6	-0.7768***	0.4599***
Housing_services_inflation_7	-3.4739***	0.031***
Housing_services_inflation_8	-3.9943***	0.0184***
Housing_services_inflation_9	-0.6355	0.5297**
Housing_services_inflation_10	-0.8605***	0.4229***
Housing_services_inflation_11	2.6271***	13.8339***
Housing_services_inflation_12	-0.1968	0.8214
Transport/travel_services_inflation_1	0.1766	1.1932*
Transport/travel_services_inflation_2	1.2252***	3.4048***
Transport/travel_services_inflation_3	1.9681***	7.1573***
Transport/travel_services_inflation_4	1.2457***	3.4753***
Transport/travel_services_inflation_5	1.7493***	5.7507***
Transport/travel_services_inflation_6	1.4363***	4.2052***
Transport/travel_services_inflation_7	0.6835***	1.9809***
Transport/travel_services_inflation_8	1.0083***	2.7409***
Transport/travel_services_inflation_9	1.1281***	3.0897***
Transport/travel_services_inflation_10	1.5246***	4.5933***
Transport/travel_services_inflation_11	0.8467***	2.3319***
Transport/travel_services_inflation_12	0.9509***	2.588***
Communication_inflation_1	1.4737***	4.3656***

Communication_inflation_2	0.1469	1.1582
Communication_inflation_3	0.6848***	1.9833***
Communication_inflation_4	1.2218***	3.3933***
Communication_inflation_5	1.4067***	4.0826***
Communication_inflation_6	1.1735***	3.2332***
Communication_inflation_7	0.6602***	1.9352***
Communication_inflation_8	-0.7655***	0.4651***
Communication_inflation_9	0.885***	2.4229***
Communication_inflation_10	0.8002***	2.226***
Communication_inflation_11	0.9096***	2.4833***
Communication_inflation_12	-0.1286	0.8793
Recreational/personal_services_inflation_1	7.8487***	2562.3216***
Recreational/personal_services_inflation_2	10.9729***	58270.6146***
Recreational/personal_services_inflation_3	9.0765***	8747.5729***
Recreational/personal_services_inflation_4	8.4513***	4681.0009***
Recreational/personal_services_inflation_5	11.6406***	113620***
Recreational/personal_services_inflation_6	5.8965***	363.7628***
Recreational/personal_services_inflation_7	4.3212***	75.2786***
Recreational/personal_services_inflation_8	9.734***	16882.7762***
Recreational/personal_services_inflation_9	8.9308***	7561.3566***
Recreational/personal_services_inflation_10	6.8115***	908.2387***
Recreational/personal_services_inflation_11	7.6162***	2030.7529***
Recreational/personal_services_inflation_12	4.2074***	67.1843***
Miscellaneous_services_inflation_1	1.1465***	3.147***
Miscellaneous_services_inflation_2	1.7915***	5.9982***
Miscellaneous_services_inflation_3	-1.7461***	0.1745***
Miscellaneous_services_inflation_4	-0.599	0.5494**
Miscellaneous_services_inflation_5	-1.2174***	0.296***
Miscellaneous_services_inflation_6	-2.4647***	0.085***
Miscellaneous_services_inflation_7	-4.5835***	0.0102***
Miscellaneous_services_inflation_8	-6.7941***	0.0011***
Miscellaneous_services_inflation_9	-5.5874***	0.0037***
Miscellaneous_services_inflation_10	-7.719***	0.0004***
Miscellaneous_services_inflation_11	-8.157***	0.0003***
Miscellaneous_services_inflation_12	-5.805***	0.003***
Food/Non_alcoholic_expenditure	0.0242	1.0245
Alcoholic_expenditure	0.1471***	1.1585***
Energy_expenditure	-0.0175	0.9827**
Non_energy_goods_expenditure	-0.0559	0.9456**
Housing_services_expenditure	0.3291***	1.3897***
Transport/travel_services_expenditure	0.0016	1.0016
Communication_expenditure	-0.1498***	0.8609***
Recreational/personal_services_expenditure	-0.0814***	0.9218***

Miscellaneous_services_expenditure	-0.2342***	0.7912***
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Cox Model Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.056***	1.0576***	0.0353***	1.036***
SW	-0.0017	0.9983	0.0226***	1.0229***
East_Anglia	-0.008**	0.992**	0.0105***	1.0105***
East_Midlands	-0.0001	0.9999	0.0093***	1.0093***
West_Midlands	0.0231***	1.0234***	0.0122***	1.0123***
Yorks_Humber	0.0121***	1.0122***	0.009***	1.009***
NW	0.0229***	1.0232***	0.0377***	1.0384***
North	-0.0061	0.9939	0.0321***	0.9684***
Wales	-0.0433***	0.9576***	-0.022***	0.9782***
Scotland	0.0178***	1.0179***	0.013***	1.013***
NI	0.001	1.001	0.0073*	1.0073*
FEB	-0.022**	0.9783**	-0.0086	0.9914
MAR	0.0838***	1.0874***	0.0266***	0.9737***
APR	-0.0044	0.9956	-0.023***	0.9773***
MAY	0.0137	1.0138	0.0093	1.0094
JUN	0.0125	1.0126	0.0366***	1.0373***
JUL	-0.0031	0.997	0.0132*	1.0132*
AUG	-0.0276***	0.9728***	-0.0111	0.9889
SEP	-0.0311***	0.9694***	0.0209***	1.0212***
OCT	-0.0069	0.9932	0.0129	1.013
NOV	0.0371***	1.0378***	0.0126	1.0127
DEC	-0.0158	0.9844	-0.0111	0.989
wage	-0.5951***	0.5515***	0.826***	2.2842***
Non-Alcoholic/Beverage	0.1264***	1.1347***	0.0849***	1.0886***
Energy	0.041***	1.0418***	-0.0063	0.9937
Non-Energy	-0.0402***	0.9606***	0.0067*	1.0068*
Housing	0.071***	1.0736***	0.0175***	0.9826***
Transport/Travel	-0.1997***	0.819***	0.2257***	0.798***
Communication	0.0476***	1.0488***	0.0994***	1.1045***
Recreational/Personal	-0.1963***	0.8218***	0.1745***	0.8399***
Miscellaneous	0.0586***	1.0603***	0.1416***	1.1521***
SD	0.2061***	1.2288***	0.0749***	1.0778***

D	0.2545***	1.2898***	0.1822***	1.1999***
independent	-0.031***	0.9695***	0.0565***	1.0581***
tax	-1.6164***	0.1986***	0.6763***	0.5085***
NX	0.0176***	1.0178***	0.1603***	0.8519***
nine_ending	0.0443***	1.0452***	0.0262***	0.9742***
zero_ending	0.0777***	1.0808***	-0.016***	0.9841***
sales	0.3977***	1.4884***	0.4545***	1.5754***
market_share	0.0102***	1.0103***	0.0072***	1.0072***
increase_increase	-0.1847***	0.8313***	0.2536***	0.776***
increase_decrease	-0.0217***	0.9785***	0.0522***	0.9491***
decrease_decrease	0.0016	1.0016	-0.029***	0.9714***
oil	0.0959***	1.1007***	-0.0066	0.9934
oil_1	0.0011***	1.0011***	0.0011***	1.0011***
oil_2	-0.0009***	0.9991***	0.0006***	1.0006***
oil_3	-0.0016***	0.9984***	0.001***	1.001***
oil_4	-0.001***	0.999***	0.0005***	1.0005***
oil_5	-0.0013***	0.9987***	0.0008***	1.0008***
oil_6	-0.0016***	0.9984***	0.0008***	1.0008***
oil_7	-0.001***	0.999***	0.0003*	1.0003*
oil_8	-0.0012***	0.9988***	0.0009***	0.9991***
oil_9	-0.0012***	0.9988***	0.0006***	0.9994***
oil_10	-0.0012***	0.9988***	0.0001	1.0001
oil_11	-0.0015***	0.9985***	-0.0002	0.9998
oil_12	-0.0016***	0.9984***	0.0005***	0.9995***
inflation_1	0.2694	1.3092	2.8461***	0.0581***
inflation_2	1.4805**	4.3952**	-1.2869**	0.2761**
inflation_3	4.7475***	115.2995***	-0.6424	0.526
inflation_4	6.6383***	763.8055***	-1.4682**	0.2303**
inflation_5	8.6097***	5484.4757***	-0.0975	0.9071
inflation_6	8.649***	5704.4401***	2.1025***	0.1222***
inflation_7	10.8507**	51571.8242*	-0.8592	0.4235
inflation_8	8.1611***	3502.1845***	0.0314	1.0319
inflation_9	8.4789***	4812.0989***	-0.0872	0.9165
inflation_10	4.0447***	57.0919***	0.7793	2.18

inflation_11	6.6399***	765.0139***	-0.655	0.5195
inflation_12	3.4038***	30.0781***	-0.4459	0.6403
			-	
R	0.4644***	1.591***	0.2557***	0.7744***
R_1	0.0069***	1.007***	-0.001***	0.999***
			-	
R_2	0.0075***	1.0075***	0.0014***	0.9986***
			-	
R_3	-0.0023***	0.9977***	0.0015***	0.9985***
			-	
R_4	-0.0006	0.9994	0.0013***	0.9987***
R_5	-0.0033***	0.9968***	-0.0002	0.9998
R_6	0.0067***	1.0067***	-0.0003*	0.9997*
R_7	0.004***	1.004***	-0.0003*	0.9997*
R_8	0.0038***	1.0038***	0.0026***	1.0026***
R_9	0.0033***	1.0033***	0.0019***	1.0019***
R_10	0.0072***	1.0072***	0.0018***	1.0018***
R_11	0.0097***	1.0098***	0.0021***	1.0021***
R_12	0.0051***	1.0051***	0.0013***	1.0013***
Food/Non_alcoholic_inflation_1	-0.0415	0.9594	2.2645***	9.6268***
Food/Non_alcoholic_inflation_2	0.8737***	2.3957***	2.6565***	14.247***
Food/Non_alcoholic_inflation_3	-0.85***	0.4274***	2.0305***	7.6181***
Food/Non_alcoholic_inflation_4	-0.9432***	0.3894***	2.1318***	8.43***
Food/Non_alcoholic_inflation_5	2.0014***	7.3993***	1.5887***	4.8974***
			-	
Food/Non_alcoholic_inflation_6	2.4547***	11.6434***	1.4038***	0.2457***
			-	
Food/Non_alcoholic_inflation_7	0.669**	1.9523**	1.0189***	0.361***
Food/Non_alcoholic_inflation_8	-0.6706**	0.5114**	0.6443**	1.9046**
Food/Non_alcoholic_inflation_9	-0.6121**	0.5422**	-0.2772	0.7579
			-	
Food/Non_alcoholic_inflation_10	0.6936***	2.0008***	1.5388***	0.2146***
Food/Non_alcoholic_inflation_11	-0.2669	0.7657	-0.3191	0.7268
			-	
Food/Non_alcoholic_inflation_12	-0.404	0.6676	1.7073***	0.1814***
			-	
Alcoholic_inflation_1	2.3041***	10.0155***	2.8398***	0.0584***
			-	
Alcoholic_inflation_2	-1.4319***	0.2389***	3.0057***	0.0495***
Alcoholic_inflation_3	-1.4146***	0.243***	-2.484***	0.0834***
			-	
Alcoholic_inflation_4	2.0884***	8.0717***	2.1951***	0.1113***
			-	
Alcoholic_inflation_5	4.2512***	70.1882***	1.3706***	0.254***
			-	
Alcoholic_inflation_6	2.7137***	15.085***	0.9548***	0.3849***

Alcoholic_inflation_7	1.263***	3.5359***	-0.2537	0.776
Alcoholic_inflation_8	0.6905**	1.9947**	0.8362***	0.4333***
Alcoholic_inflation_9	-0.6072*	0.5448*	0.7374***	0.4783***
Alcoholic_inflation_10	1.5335***	4.6342***	0.1638	1.178
Alcoholic_inflation_11	1.7154***	5.5592***	-0.1581	0.8538
Alcoholic_inflation_12	-3.4398***	0.0321***	0.9741***	0.3775***
Energy_inflation_1	-0.1713	0.8426	0.0876	1.0916
Energy_inflation_2	-0.3617***	0.6965***	-0.0545	0.9469
Energy_inflation_3	-1.5924***	0.2034***	0.2921***	1.3393***
Energy_inflation_4	0.5267***	1.6934***	0.2833***	1.3275***
Energy_inflation_5	0.0316	1.0321	0.4732***	1.6051***
Energy_inflation_6	0.6495***	1.9146***	0.2042**	1.2266**
Energy_inflation_7	0.618***	1.8552***	0.3599***	1.4332***
Energy_inflation_8	0.0789	1.0821	0.1644*	1.1786*
Energy_inflation_9	-0.1425	0.8671	-0.1539*	0.8573*
Energy_inflation_10	1.7807***	5.934***	0.1098	1.1161
Energy_inflation_11	2.3819***	10.8251***	0.7336***	2.0826***
Energy_inflation_12	1.468***	4.3405***	0.5611***	1.7526***
Non_energy_goods_inflation_1	1.8342***	6.26***	0.5989***	0.5494***
Non_energy_goods_inflation_2	0.8712***	2.3898***	-0.2995	0.7412
Non_energy_goods_inflation_3	0.6133***	1.8465***	-0.547***	0.5787***
Non_energy_goods_inflation_4	0.7893***	2.2019***	1.5738***	0.2073***
Non_energy_goods_inflation_5	0.0016	1.0016	2.0828***	0.1246***
Non_energy_goods_inflation_6	0.219	1.2449	-2.747***	0.0641***
Non_energy_goods_inflation_7	0.7273***	2.0694***	1.7088***	0.1811***
Non_energy_goods_inflation_8	0.3634*	1.4382*	0.5824***	0.5585***
Non_energy_goods_inflation_9	1.144***	3.1392***	0.9305***	0.3944***
Non_energy_goods_inflation_10	0.3754*	1.4556*	-2.113***	0.1209***
Non_energy_goods_inflation_11	0.2828	1.3269	2.5635***	0.077***
Non_energy_goods_inflation_12	0.3551*	1.4264*	1.8264***	0.161***
Housing_services_inflation_1	10.0442**	0***	6.0495***	423.8945***
Housing_services_inflation_2	14.8919**	0***	4.9141***	136.1941***

		*		
Housing_services_inflation_3	-4.3841***	0.0125***	6.3914***	596.6709***
Housing_services_inflation_4	-1.4204***	0.2416***	3.2243***	25.1355***
Housing_services_inflation_5	-7.3359***	0.0007***	5.4456***	231.7461***
			-	
Housing_services_inflation_6	-6.6194***	0.0013***	3.5604***	0.0284***
			-	
Housing_services_inflation_7	-5.4031***	0.0045***	3.5647***	0.0283***
			-	
Housing_services_inflation_8	-1.4963***	0.224***	2.2935***	0.1009***
Housing_services_inflation_9	0.0673	1.0696	-0.1214	0.8857
Housing_services_inflation_10	-2.4994***	0.0821***	-0.7878	0.4549
			13.3884*	
Housing_services_inflation_11	-3.6648***	0.0256***	**	652360***
Housing_services_inflation_12	-3.4165***	0.0328***	4.7395***	114.3728***
Transport/travel_services_inflation_1	-1.8319***	0.1601***	0.4223***	1.5254***
Transport/travel_services_inflation_2	0.5645***	1.7586***	0.6646***	1.9436***
Transport/travel_services_inflation_3	1.2107***	3.3559***	1.3168***	3.7313***
Transport/travel_services_inflation_4	0.8516***	2.3434***	1.5644***	4.78***
Transport/travel_services_inflation_5	-1.2975***	0.2732***	1.1302***	3.0962***
Transport/travel_services_inflation_6	0.7475***	2.1117***	1.4391***	4.2167***
Transport/travel_services_inflation_7	0.4839**	1.6224**	0.4744***	1.6071***
Transport/travel_services_inflation_8	-0.042	0.9588	0.4819***	1.6192***
Transport/travel_services_inflation_9	-0.2618	0.7697	0.8373***	2.3101***
Transport/travel_services_inflation_10	-0.1654	0.8476	0.8713***	2.3901***
Transport/travel_services_inflation_11	-0.3477	0.7063	1.4577***	4.2962***
Transport/travel_services_inflation_12	1.2263***	3.4086***	1.382***	3.9831***
Communication_inflation_1	-0.4556*	0.6341*	1.9734***	7.1953***
Communication_inflation_2	-1.7613***	0.1718***	0.7936***	2.2114***
Communication_inflation_3	-2.5471***	0.0783***	1.7739***	5.8937***
Communication_inflation_4	-0.0565	0.945	3.3161***	27.5521***
Communication_inflation_5	-1.3321***	0.2639***	4.051***	57.4555***
Communication_inflation_6	-1.9216***	0.1464***	4.4983***	89.8627***
Communication_inflation_7	1.7436***	5.7176***	5.2678***	193.9974***
Communication_inflation_8	-2.7328***	0.065***	0.9347***	2.5466***
Communication_inflation_9	0.5977**	1.818**	2.7849***	16.1974***
Communication_inflation_10	1.8244***	6.1993***	2.026***	7.5839***
Communication_inflation_11	2.2039***	9.0606***	2.1512***	8.5949***
Communication_inflation_12	1.66***	5.2592***	1.6685***	5.3042***
Recreational/personal_services_inflation			13.4822*	
_1	-4.3882***	0.0124***	**	716560***
Recreational/personal_services_inflation			15.3021*	
_2	3.7081***	40.7776***	**	4422000***
Recreational/personal_services_inflation	6.7383***	844.085***	9.3653***	11676.439***

_3				
Recreational/personal_services_inflation				
_4	7.3203***	1510.5887***	14.033***	1242900***
Recreational/personal_services_inflation	15.9788**		17.0235*	
_5	*	8699400***	**	24729000***
Recreational/personal_services_inflation			11.6197*	
_6	5.0102***	149.9318***	**	111270***
Recreational/personal_services_inflation				
_7	7.6057***	2009.7009***	3.9365***	51.2372***
Recreational/personal_services_inflation		15062.9393*	12.3573*	
_8	9.62***	**	**	232640***
Recreational/personal_services_inflation				16467.6245*
_9	8.6574***	5752.409***	9.7092***	**
Recreational/personal_services_inflation			10.5557*	38396.1606*
_10	4.0023***	54.7226***	**	**
Recreational/personal_services_inflation			13.5595*	
_11	-2.2514***	0.1053***	**	774100***
Recreational/personal_services_inflation			12.2001*	
_12	-8.6899***	0.0002***	**	198810***
Miscellaneous_services_inflation_1	-3.3645***	0.0346***	4.2732***	71.7511***
Miscellaneous_services_inflation_2	-3.1631***	0.0423***	4.9886***	146.7281***
Miscellaneous_services_inflation_3	-3.0243***	0.0486***	3.5014***	33.1635***
Miscellaneous_services_inflation_4	-3.4838***	0.0307***	2.3465***	0.0957***
Miscellaneous_services_inflation_5	1.1487**	3.154**	4.8962***	0.0075***
Miscellaneous_services_inflation_6	-1.4106***	0.244***	3.4012***	0.0333***
Miscellaneous_services_inflation_7	-4.5947***	0.0101***	6.4249***	0.0016***
Miscellaneous_services_inflation_8	-3.1556***	0.0426***	7.8736***	0.0004***
Miscellaneous_services_inflation_9	-1.9802***	0.138***	6.7485***	0.0012***
Miscellaneous_services_inflation_10	-6.2277***	0.002***	5.2493***	0.0053***
Miscellaneous_services_inflation_11	10.9648**	0***	5.7577***	0.0032***
Miscellaneous_services_inflation_12	-1.7054***	0.1817***	6.5248***	0.0015***
Food/Non_alcoholic_expenditure	-0.1504	0.8603	-0.0127	0.9874
Alcoholic_expenditure	0.1461	1.1573	0.0225	1.0228
Energy_expenditure	-0.0782***	0.9248***	-0.0064	0.9937
Non_energy_goods_expenditure	0.5015***	1.6512***	-0.0282	0.9722
Housing_services_expenditure	1.9531***	7.0507***	0.0629**	1.0649**
Transport/travel_services_expenditure	0.3903***	1.4774***	0.0154	1.0155

Communication_expenditure	-1.3499***	0.2593***	-0.0513**	0.95**
Recreational/personal_services_expenditure	-0.4942***	0.6101***	-0.0175	0.9826
Miscellaneous_services_expenditure	0.9249***	2.5216***	0.1203***	0.8867***

Cox Model Full Sample Results		
without sales	full sample	
	coef	H.R.
SE	0.0367***	1.0374***
SW	-0.0092***	0.9909***
East_Anglia	-0.0177***	0.9825***
East_Midlands	-0.009***	0.9911***
West_Midlands	0.01***	1.01***
Yorks_Humber	0.0005	1.0005
NW	0.0316***	1.0321***
North	-0.0371***	0.9635***
Wales	-0.0468***	0.9542***
Scotland	0.0089***	1.009***
NI	-0.0079**	0.9921**
FEB	-0.0033	0.9967
MAR	0.0383***	1.039***
APR	-0.005	0.995
MAY	0.009	1.0091
JUN	-0.0059	0.9941
JUL	0.0051	1.0052
AUG	-0.0253***	0.975***
SEP	0.0089	1.009
OCT	-0.0048	0.9953
NOV	0.0674***	1.0698***
DEC	0.0117*	1.0118*
wage	1.837***	6.2777***
Non-Alcoholic/Beverage	0.1097***	1.116***
Energy	0.1317***	1.1408***
Non-Energy	-0.0227***	0.9775***
Housing	-0.1288***	0.8792***
Transport/Travel	-0.1898***	0.8271***
Communication	0.1535***	1.1659***
Recreational/Personal	-0.1456***	0.8645***
Miscellaneous	0.013***	1.013***
SD	0.152***	1.1641***
D	0.2611***	1.2983***

independent	-0.0084***	0.9916***
tax	-0.7141***	0.4896***
NX	-0.0517***	0.9496***
nine_ending	-0.0179***	0.9823***
zero_ending	-0.0368***	0.9638***
market_share	0.0082***	1.0083***
increase_increase	-0.237***	0.789***
increase_decrease	-0.0403***	0.9605***
decrease_decrease	-0.0151***	0.985***
oil	0.0849***	1.0886***
oil_1	0.0015***	1.0016***
oil_2	0.0019***	1.0019***
oil_3	0.0008***	1.0008***
oil_4	0.0014***	1.0014***
oil_5	0.0008***	1.0008***
oil_6	-0.0001	0.9999
oil_7	0.0006***	1.0006***
oil_8	-0.0002	0.9998
oil_9	-0.0007***	0.9993***
oil_10	-0.0006***	0.9994***
oil_11	-0.0016***	0.9984***
oil_12	-0.0009***	0.9991***
inflation_1	-1.8314***	0.1602***
inflation_2	0.4164	1.5164
inflation_3	4.7167***	111.804***
inflation_4	2.8351***	17.0323***
inflation_5	0.1495	1.1613
inflation_6	-0.7734*	0.4614*
inflation_7	-0.4731	0.6231
inflation_8	1.4156***	4.1191***
inflation_9	-0.4727	0.6233
inflation_10	0.2979	1.347
inflation_11	-2.0313***	0.1312***
inflation_12	-0.1911	0.826
R	-0.2074***	0.8127***
R_1	-0.0002	0.9998
R_2	0.0001	1.0001
R_3	-0.0029***	0.9971***
R_4	-0.0018***	0.9982***
R_5	-0.0014***	0.9986***
R_6	-0.0004**	0.9996**
R_7	-0.0001	0.9999
R_8	0.0013***	1.0013***

R_9	0.0002	1.0002
R_10	0.0009***	1.0009***
R_11	0.0013***	1.0013***
R_12	0.0008***	1.0008***
Food/Non_alcoholic_inflation_1	1.2163***	3.3748***
Food/Non_alcoholic_inflation_2	2.8719***	17.6704***
Food/Non_alcoholic_inflation_3	-0.9459***	0.3883***
Food/Non_alcoholic_inflation_4	1.8294***	6.2303***
Food/Non_alcoholic_inflation_5	1.4273***	4.1674***
Food/Non_alcoholic_inflation_6	0.5501***	1.7334***
Food/Non_alcoholic_inflation_7	-0.452***	0.6363***
Food/Non_alcoholic_inflation_8	-0.2009	0.818
Food/Non_alcoholic_inflation_9	-1.5082***	0.2213***
Food/Non_alcoholic_inflation_10	-0.5427***	0.5812***
Food/Non_alcoholic_inflation_11	0.3379**	1.4021**
Food/Non_alcoholic_inflation_12	0.081	1.0843
Alcoholic_inflation_1	-1.5011***	0.2229***
Alcoholic_inflation_2	-2.2824***	0.102***
Alcoholic_inflation_3	-1.7***	0.1827***
Alcoholic_inflation_4	-0.9982***	0.3685***
Alcoholic_inflation_5	-0.8937***	0.4091***
Alcoholic_inflation_6	-0.7688***	0.4636***
Alcoholic_inflation_7	-0.3616***	0.6966***
Alcoholic_inflation_8	1.3886***	4.0094***
Alcoholic_inflation_9	-0.5455***	0.5796***
Alcoholic_inflation_10	-0.1166	0.8899
Alcoholic_inflation_11	-0.2588**	0.772**
Alcoholic_inflation_12	-0.749***	0.4729***
Energy_inflation_1	0.4152***	1.5147***
Energy_inflation_2	-0.4478***	0.639***
Energy_inflation_3	-0.1194**	0.8874**
Energy_inflation_4	0.0555	1.0571
Energy_inflation_5	0.236***	1.2662***
Energy_inflation_6	0.8419***	2.3209***
Energy_inflation_7	1.0244***	2.7855***
Energy_inflation_8	0.1266**	1.135**
Energy_inflation_9	0.1381**	1.1481**
Energy_inflation_10	0.896***	2.4498***
Energy_inflation_11	0.6431***	1.9023***
Energy_inflation_12	-0.0727	0.9299
Non_energy_goods_inflation_1	0.382***	1.4652***
Non_energy_goods_inflation_2	0.111	1.1174
Non_energy_goods_inflation_3	-0.3737***	0.6882***

Non_energy_goods_inflation_4	-0.2009	0.818
Non_energy_goods_inflation_5	0.0558	1.0574
Non_energy_goods_inflation_6	-0.0042	0.9958
Non_energy_goods_inflation_7	0.1086	1.1147
Non_energy_goods_inflation_8	0.106	1.1118
Non_energy_goods_inflation_9	-0.0061	0.9939
Non_energy_goods_inflation_10	-0.8159***	0.4422***
Non_energy_goods_inflation_11	0.0149	1.015
Non_energy_goods_inflation_12	0.2363*	1.2665*
Housing_services_inflation_1	0.2677	1.307
Housing_services_inflation_2	-1.2739***	0.2797***
Housing_services_inflation_3	-0.718**	0.4877**
Housing_services_inflation_4	2.0506***	7.7728***
Housing_services_inflation_5	4.8316***	125.4101***
Housing_services_inflation_6	1.3232***	3.7556***
Housing_services_inflation_7	-0.8882***	0.4114***
Housing_services_inflation_8	-0.6195*	0.5382*
Housing_services_inflation_9	1.0605***	2.8878***
Housing_services_inflation_10	1.0909***	2.977***
Housing_services_inflation_11	6.3614***	579.0595***
Housing_services_inflation_12	2.3655***	10.6496***
Transport/travel_services_inflation_1	-0.2699**	0.7634**
Transport/travel_services_inflation_2	0.8369***	2.3093***
Transport/travel_services_inflation_3	1.93***	6.8895***
Transport/travel_services_inflation_4	0.5345***	1.7065***
Transport/travel_services_inflation_5	1.3018***	3.6759***
Transport/travel_services_inflation_6	0.9027***	2.4663***
Transport/travel_services_inflation_7	0.413***	1.5113***
Transport/travel_services_inflation_8	0.9205***	2.5105***
Transport/travel_services_inflation_9	1.454***	4.2804***
Transport/travel_services_inflation_10	1.3964***	4.0408***
Transport/travel_services_inflation_11	0.4219***	1.5248***
Transport/travel_services_inflation_12	1.2371***	3.4457***
Communication_inflation_1	2.1401***	8.5003***
Communication_inflation_2	0.6786***	1.9711***
Communication_inflation_3	1.4325***	4.1891***
Communication_inflation_4	1.1948***	3.303***
Communication_inflation_5	1.9538***	7.0553***
Communication_inflation_6	2.3004***	9.9782***
Communication_inflation_7	1.4937***	4.4536***
Communication_inflation_8	0.0293	1.0297
Communication_inflation_9	2.0273***	7.5938***
Communication_inflation_10	1.1503***	3.159***

Communication_inflation_11	1.0157***	2.7612***
Communication_inflation_12	-0.1864	0.83
Recreational/personal_services_inflation_1	6.1084***	449.6238***
Recreational/personal_services_inflation_2	9.8019***	18067.1816***
Recreational/personal_services_inflation_3	8.76***	6374.3598***
Recreational/personal_services_inflation_4	7.1599***	1286.7836***
Recreational/personal_services_inflation_5	10.4133***	33298.5936***
Recreational/personal_services_inflation_6	2.1401***	8.5001***
Recreational/personal_services_inflation_7	1.4998***	4.4806***
Recreational/personal_services_inflation_8	6.4507***	633.1644***
Recreational/personal_services_inflation_9	5.2786***	196.0975***
Recreational/personal_services_inflation_10	2.52***	12.4284***
Recreational/personal_services_inflation_11	5.9615***	388.1961***
Recreational/personal_services_inflation_12	1.4038***	4.0708***
Miscellaneous_services_inflation_1	0.0378	1.0385
Miscellaneous_services_inflation_2	-0.3399	0.7119
Miscellaneous_services_inflation_3	-4.9383***	0.0072***
Miscellaneous_services_inflation_4	-2.2973***	0.1005***
Miscellaneous_services_inflation_5	-2.115***	0.1206***
Miscellaneous_services_inflation_6	-3.9103***	0.02***
Miscellaneous_services_inflation_7	-5.8284***	0.0029***
Miscellaneous_services_inflation_8	-7.9032***	0.0004***
Miscellaneous_services_inflation_9	-7.1848***	0.0008***
Miscellaneous_services_inflation_10	-8.985***	0.0001***
Miscellaneous_services_inflation_11	-8.8889***	0.0001***
Miscellaneous_services_inflation_12	-5.8315***	0.0029***
Food/Non_alcoholic_expenditure	1.6325***	5.1167***
Alcoholic_expenditure	-0.1218***	0.8853***
Energy_expenditure	0.1054***	1.1111***
Non_energy_goods_expenditure	-0.7471***	0.4738***
Housing_services_expenditure	0.7516***	2.1204***
Transport/travel_services_expenditure	2.8302***	16.9487***
Communication_expenditure	-0.4166***	0.6593***
Recreational/personal_services_expenditure	0.2968***	1.3456***
Miscellaneous_services_expenditure	-0.9202***	0.3984***

Cox Model Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0602***	1.062***	0.0296***	1.0301***
SW	-0.0169***	0.9832***	0.0031	1.0032

East_Anglia	-0.0174***	0.9828***	-0.004	0.996
			-	
East_Midlands	-0.0063	0.9937	0.0112***	0.9889***
West_Midlands	0.0188***	1.019***	0.0022	1.0023
Yorks_Humber	0.0013	1.0013	0.0033	1.0033
NW	0.0187***	1.0189***	0.0379***	1.0387***
			-	
North	-0.0209***	0.9793***	0.0501***	0.9512***
			-	
Wales	-0.0566***	0.945***	0.0386***	0.9621***
Scotland	0.0117***	1.0118***	0.0077**	1.0077**
NI	-0.0118*	0.9883*	-0.0097**	0.9904**
FEB	-0.0499***	0.9514***	0.0184**	1.0185**
MAR	0.0588***	1.0605***	0.0021	1.0021
APR	0.0071	1.0071	-0.0189**	0.9812**
MAY	0.035***	1.0356***	0.0088	1.0089
JUN	0.017*	1.0172*	-0.0195**	0.9807**
JUL	0.0026	1.0026	-0.0085	0.9916
AUG	-0.005	0.995	-0.0077	0.9923
SEP	0.0092	1.0092	0.0136	1.0137
OCT	-0.0144	0.9857	0.0029	1.0029
NOV	0.0426***	1.0435***	0.0294***	1.0298***
DEC	-0.0279**	0.9725**	0.0234***	1.0237***
wage	-1.1358***	0.3212***	1.4904***	4.4389***
Non-Alcoholic/Beverage	0.1338***	1.1431***	0.0598***	1.0617***
Energy	0.0924***	1.0968***	0.0697***	1.0722***
Non-Energy	-0.0449***	0.9561***	0.0095**	1.0095**
			-	
Housing	-0.0815***	0.9217***	0.0925***	0.9116***
			-	
Transport/Travel	-0.1576***	0.8542***	0.1572***	0.8545***
Communication	0.202***	1.2239***	0.1075***	1.1135***
			-	
Recreational/Personal	-0.1633***	0.8493***	0.1259***	0.8817***
Miscellaneous	0.0079	1.0079	0.0158***	1.0159***
SD	0.1953***	1.2157***	0.1136***	1.1203***
D	0.3181***	1.3745***	0.2023***	1.2242***
independent	-0.078***	0.9249***	0.0169***	1.017***
			-	
tax	-0.3906***	0.6767***	0.6966***	0.4983***
			-	
NX	-0.0022	0.9978	0.2234***	0.7998***
			-	
nine_ending	0.047***	1.0481***	0.0529***	0.9485***
zero_ending	0.0412***	1.042***	-	0.9337***

			0.0686***	
market_share	0.0065***	1.0065***	0.0065***	1.0065***
increase_increase	-0.2137***	0.8076***	0.2554***	0.7746***
increase_decrease	-0.0488***	0.9524***	0.0477***	0.9534***
decrease_decrease	-0.0125***	0.9876***	0.0106***	0.9894***
oil	0.053***	1.0545***	0.0532***	1.0546***
oil_1	0.0001	1.0001	0.0009***	1.0009***
oil_2	-0.0011***	0.9989***	0.0014***	1.0014***
oil_3	-0.0011***	0.9989***	0.0009***	1.0009***
oil_4	-0.0011***	0.9989***	0.0009***	1.0009***
oil_5	-0.0012***	0.9988***	0.001***	1.001***
oil_6	-0.0014***	0.9986***	0.0002	1.0002
oil_7	0.0004	1.0004	0.0014***	1.0014***
oil_8	-0.0009***	0.9991***	-0.0002	0.9998
oil_9	-0.0005**	0.9995**	0.0002	1.0002
oil_10	-0.001***	0.999***	0.0008***	1.0008***
oil_11	-0.002***	0.998***	-0.0003	0.9998
oil_12	-0.0012***	0.9988***	-0.0005**	0.9995**
			-	
inflation_1	0.9693	2.636	2.1723***	0.1139***
			-	
inflation_2	2.8595***	17.4536***	2.3523***	0.0952***
inflation_3	2.082**	8.0202**	0.9505	2.587
		140.4114**		
inflation_4	4.9446***	*	-0.6463	0.524
		414.2022**		
inflation_5	6.0264***	*	-0.7639	0.4659
		525.0968**		
inflation_6	6.2636***	*	-1.4465**	0.2354**
		4791.648**		
inflation_7	8.4746***	*	2.1035***	0.122***
		335.8083**		
inflation_8	5.8165***	*	-0.8885	0.4113
		373.0567**		
inflation_9	5.9217***	*	2.5832***	0.0755***
inflation_10	2.1141**	8.2819**	-0.1523	0.8587
inflation_11	1.574*	4.8257*	-2.141***	0.1175***
inflation_12	0.5143	1.6725	-1.1549*	0.3151*
			-	
R	0.2323***	1.2615***	0.2354***	0.7903***
			-	
R_1	0.0051***	1.0051***	0.0013***	0.9987***
R_2	0.0079***	1.0079***	-	0.9985***

				0.0015***	
				-	
	R_3	-0.0055***	0.9945***	0.0024***	0.9976***
				-	
	R_4	0.0001	1.0001	0.0025***	0.9975***
	R_5	-0.0051***	0.9949***	-0.0002	0.9998
				-	
	R_6	0.0076***	1.0076***	0.0014***	0.9986***
	R_7	0.0058***	1.0058***	-0.0003	0.9997
	R_8	0.008***	1.008***	0.0008***	1.0008***
	R_9	0.0051***	1.0051***	0.0005***	1.0005***
	R_10	0.0121***	1.0122***	0.0006***	1.0006***
	R_11	0.0139***	1.014***	0.0009***	1.0009***
	R_12	0.0072***	1.0072***	0.0011***	1.0011***
	Food/Non_alcoholic_inflation_1	-0.2096	0.8109	2.7857***	16.2112***
	Food/Non_alcoholic_inflation_2	2.6068***	13.5562***	2.0077***	7.4463***
	Food/Non_alcoholic_inflation_3	-0.1839	0.832	0.7456**	2.1077**
	Food/Non_alcoholic_inflation_4	-1.1897***	0.3043***	1.8484***	6.3495***
	Food/Non_alcoholic_inflation_5	3.1382***	23.0622***	0.2009	1.2225
				-	
	Food/Non_alcoholic_inflation_6	2.516***	12.3787***	3.1611***	0.0424***
				-	
	Food/Non_alcoholic_inflation_7	2.1812***	8.8572***	0.9813***	0.3748***
	Food/Non_alcoholic_inflation_8	-0.5678*	0.5668*	-0.918***	0.3993***
				-	
	Food/Non_alcoholic_inflation_9	-3.1767***	0.0417***	0.8276***	0.4371***
				-	
	Food/Non_alcoholic_inflation_10	-0.768**	0.4639**	1.5819***	0.2056***
				-	
	Food/Non_alcoholic_inflation_11	-0.7092**	0.492**	0.9994***	0.3681***
				-	
	Food/Non_alcoholic_inflation_12	0.3353	1.3984	0.7891***	0.4543***
				-	
	Alcoholic_inflation_1	4.3952***	81.0632***	3.0285***	0.0484***
				-	
	Alcoholic_inflation_2	0.7348**	2.085**	2.6831***	0.0683***
				-	
	Alcoholic_inflation_3	-1.1918***	0.3037***	1.7982***	0.1656***
				-	
	Alcoholic_inflation_4	1.1965***	3.3086***	1.7352***	0.1764***
	Alcoholic_inflation_5	3.1471***	23.2691***	-0.4277**	0.652**
			139.0474**	-	
	Alcoholic_inflation_6	4.9348***	*	0.5876***	0.5557***
	Alcoholic_inflation_7	2.8586***	17.4377***	-0.3813**	0.683**
	Alcoholic_inflation_8	3.081***	21.7803***	-0.0646	0.9374
	Alcoholic_inflation_9	0.4311	1.539	-0.559***	0.5718***

Alcoholic_inflation_10	1.2093***	3.3511***	-0.538***	0.5839***
			-	
Alcoholic_inflation_11	2.6228***	13.7747***	1.2631***	0.2828***
Alcoholic_inflation_12	-3.0733***	0.0463***	-0.463***	0.6294***
Energy_inflation_1	0.8521***	2.3446***	0.3934***	1.482***
			-	
Energy_inflation_2	0.1295	1.1382	0.2768***	0.7582***
Energy_inflation_3	-0.4711***	0.6243***	0.0751	1.078
Energy_inflation_4	0.6579***	1.9306***	0.1361	1.1458
Energy_inflation_5	0.6605***	1.9357***	0.5367***	1.7103***
Energy_inflation_6	0.7159***	2.046***	0.5076***	1.6612***
Energy_inflation_7	1.0775***	2.9372***	0.6001***	1.8223***
Energy_inflation_8	-0.0375	0.9632	-0.0108	0.9893
			-	
Energy_inflation_9	-0.6139***	0.5412***	0.2901***	0.7482***
Energy_inflation_10	1.9312***	6.8981***	0.0334	1.034
Energy_inflation_11	2.1748***	8.8007***	0.3388***	1.4033***
Energy_inflation_12	1.1062***	3.023***	0.4458***	1.5617***
Non_energy_goods_inflation_1	1.1361***	3.1146***	0.3954*	1.4849*
Non_energy_goods_inflation_2	0.77***	2.1597***	0.838***	2.3117***
Non_energy_goods_inflation_3	0.4954**	1.6412**	0.5319**	1.7022**
			-	
Non_energy_goods_inflation_4	0.7417***	2.0994***	0.7521***	0.4714***
			-	
Non_energy_goods_inflation_5	-0.687***	0.5031***	1.6474***	0.1925***
			-	
Non_energy_goods_inflation_6	0.4271*	1.5328*	1.5104***	0.2208***
			-	
Non_energy_goods_inflation_7	0.6056***	1.8324***	1.4757***	0.2286***
Non_energy_goods_inflation_8	0.4305**	1.538**	-0.5658**	0.5679**
Non_energy_goods_inflation_9	0.8785***	2.4072***	-0.3854*	0.6802*
			-	
Non_energy_goods_inflation_10	0.4799**	1.6159**	1.3976***	0.2472***
			-	
Non_energy_goods_inflation_11	-0.0065	0.9935	1.6228***	0.1973***
			-	
Non_energy_goods_inflation_12	0.1998	1.2212	1.3334***	0.2636***
				17952.2621*
Housing_services_inflation_1	-9.9688***	0***	9.7955***	**
			-	
Housing_services_inflation_2	13.5145***	0***	4.6074***	100.2243***
Housing_services_inflation_3	-4.9927***	0.0068***	1.9732**	7.1939**
Housing_services_inflation_4	-0.4525	0.636	3.289***	26.8169***
Housing_services_inflation_5	-4.0532***	0.0174***	7.858***	2586.2288***
Housing_services_inflation_6	-3.9935***	0.0184***	0.5741	1.7755
Housing_services_inflation_7	-5.2847***	0.0051***	1.1652	3.2065

Housing_services_inflation_8	-1.1676**	0.3111**	3.5061***	33.3189***
Housing_services_inflation_9	-1.0142*	0.3627*	1.8644**	6.4519**
Housing_services_inflation_10	-2.4622***	0.0852***	1.6881**	5.4094**
			12.9773**	
Housing_services_inflation_11	-1.359**	0.2569**	*	432510***
Housing_services_inflation_12	-1.8897***	0.1511***	3.8894***	48.8815***
Transport/travel_services_inflation_1	-2.4356***	0.0875***	-0.0001	0.9999
Transport/travel_services_inflation_2	0.039	1.0398	0.2647	1.303
Transport/travel_services_inflation_3	1.601***	4.9579***	1.1107***	3.0365***
Transport/travel_services_inflation_4	1.8217***	6.1825***	1.1853***	3.2718***
Transport/travel_services_inflation_5	-0.0421	0.9588	0.4982***	1.6458***
Transport/travel_services_inflation_6	-0.9335***	0.3932***	0.724***	2.0626***
Transport/travel_services_inflation_7	-0.0707	0.9317	0.3535**	1.4241**
Transport/travel_services_inflation_8	0.3766	1.4573	0.5981***	1.8187***
Transport/travel_services_inflation_9	0.8275***	2.2875***	0.7661***	2.1513***
Transport/travel_services_inflation_10	0.8887***	2.4319***	0.7944***	2.2132***
Transport/travel_services_inflation_11	0.1431	1.1538	1.0939***	2.986***
Transport/travel_services_inflation_12	1.7284***	5.6319***	1.2465***	3.4782***
Communication_inflation_1	0.4772*	1.6116*	1.0595***	2.8849***
Communication_inflation_2	-0.1505	0.8603	-0.3707	0.6903
Communication_inflation_3	-1.962***	0.1406***	1.5298***	4.6172***
Communication_inflation_4	-0.7933**	0.4523**	1.9511***	7.0364***
Communication_inflation_5	-1.9586***	0.1411***	2.2954***	9.9283***
Communication_inflation_6	-1.9194***	0.1467***	3.4166***	30.4662***
Communication_inflation_7	2.4999***	12.1819***	2.7484***	15.6171***
Communication_inflation_8	-2.7085***	0.0666***	-0.4573*	0.633*
Communication_inflation_9	1.2545***	3.5062***	0.7918***	2.2074***
Communication_inflation_10	0.382	1.4652	0.0099	1.0099
Communication_inflation_11	0.2896	1.3359	0.2636	1.3016
Communication_inflation_12	-0.9029***	0.4054***	1.507***	4.513***
Recreational/personal_services_inflation_1			13.9026**	
	-6.9477***	0.001***	*	1091000***
Recreational/personal_services_inflation_2	0.517	1.677	13.933***	1124600***
Recreational/personal_services_inflation_3	-3.2596***	0.0384***	9.1806***	9706.7708***
Recreational/personal_services_inflation_4	-3.6115***	0.027***	12.3683**	
		7017.795**	*	235220***
Recreational/personal_services_inflation_5	8.8562***	*	14.2803**	
			*	1591600***
Recreational/personal_services_inflation_6	-1.3035	0.2716	6.4279***	618.9004***
Recreational/personal_services_inflation_7	-0.294	0.7452	3.1422***	23.1548***
Recreational/personal_services_inflation_8	2.2796**	9.7724**	6.4363***	624.0715***

8				
Recreational/personal_services_inflation_9	5.3956***	220.4437** *	2.104**	8.1987**
Recreational/personal_services_inflation_10	0.5522	1.7371	2.9912***	19.9098***
Recreational/personal_services_inflation_11	-2.2046**	0.1103**	4.2694***	71.4781***
Recreational/personal_services_inflation_12	-9.1833***	0.0001***	3.2029***	24.6031***
Miscellaneous_services_inflation_1	-1.2818**	0.2775**	2.9475***	19.0579***
Miscellaneous_services_inflation_2	-2.2558***	0.1048***	1.5783***	4.8468***
Miscellaneous_services_inflation_3	-3.5631***	0.0284***	2.7196***	15.1744***
Miscellaneous_services_inflation_4	-3.982***	0.0186***	-0.7769	0.4598
Miscellaneous_services_inflation_5	-0.5956	0.5512	-0.3264	0.7215
Miscellaneous_services_inflation_6	-0.3452	0.7081	1.3066**	3.6936**
			-	
Miscellaneous_services_inflation_7	-5.0348***	0.0065***	3.2994***	0.0369***
			-	
Miscellaneous_services_inflation_8	-4.374***	0.0126***	4.6092***	0.01***
			-	
Miscellaneous_services_inflation_9	-4.4763***	0.0114***	4.1437***	0.0159***
			-	
Miscellaneous_services_inflation_10	-9.4341***	0.0001***	3.2554***	0.0386***
	-		-	
Miscellaneous_services_inflation_11	14.6689***	0***	3.3953***	0.0335***
			-	
Miscellaneous_services_inflation_12	-6.2209***	0.002***	4.9842***	0.0068***
Food/Non_alcoholic_expenditure	-2.9165***	0.0541***	0.883***	2.418***
			-	
Alcoholic_expenditure	-3.1661***	0.0422***	0.0878***	0.9159***
Energy_expenditure	1.1016***	3.009***	0.4387***	1.5507***
			-	
Non_energy_goods_expenditure	0.5555	1.7428	0.8308***	0.4357***
Housing_services_expenditure	-2.8083***	0.0603***	1.9083***	6.742***
		420.0206**		
Transport/travel_services_expenditure	6.0403***	*	3.7788***	43.7636***
			-	
Communication_expenditure	-2.0522***	0.1284***	1.5265***	0.2173***
Recreational/personal_services_expenditure	0.048	1.0491	0.6077***	0.5446***
			-	
Miscellaneous_services_expenditure	-0.5244***	0.5919***	0.9995***	0.3681***

Goods Sector Results

with sales

full sample

	coef	H.R.
SE	0.0469***	1.048***
SW	0.0206***	1.0208***
East_Anglia	0.0027	1.0027
East_Midlands	0.0117***	1.0117***
West_Midlands	0.0231***	1.0233***
Yorks_Humber	0.0147***	1.0148***
NW	0.0325***	1.033***
North	-0.0114***	0.9887***
Wales	-0.0238***	0.9764***
Scotland	0.0258***	1.0261***
NI	0.0122***	1.0123***
FEB	-0.0283***	0.9721***
MAR	0.0182***	1.0184***
APR	-0.02***	0.9802***
MAY	0.0117**	1.0118**
JUN	0.0012	1.0012
JUL	0.0156***	1.0158***
AUG	-0.0115**	0.9886**
SEP	0.0277***	1.0281***
OCT	-0.0008	0.9992
NOV	0.0604***	1.0623***
DEC	0.0095	1.0095
wage	1.6916***	5.4281***
Non-Alcoholic/Beverage	0.1149***	1.1218***
Non-Energy	-0.0432***	0.9577***
SD	0.1416***	1.1522***
D	0.2216***	1.2481***
independent	-0.0266***	0.9737***
tax	-0.6794***	0.5069***
NX	-0.0449***	0.9561***
nine_ending	0.0013	1.0013
zero_ending	0.0428***	1.0438***
sales	0.3992***	1.4906***
market_share	0.013***	1.0131***
increase_increase	-0.1829***	0.8328***
increase_decrease	-0.0144***	0.9857***
decrease_decrease	-0.0285***	0.9719***
oil	0.0356***	1.0363***
oil_1	0.0014***	1.0014***
oil_2	0.0012***	1.0012***
oil_3	0.0006***	1.0006***
oil_4	0.0011***	1.0011***

oil_5	0.0002**	1.0002**
oil_6	-0.0006***	0.9994***
oil_7	0.0004***	1.0004***
oil_8	0	1
oil_9	-0.0005***	0.9995***
oil_10	-0.0004***	0.9996***
oil_11	-0.0013***	0.9987***
oil_12	-0.0007***	0.9993***
inflation_1	-0.2137	0.8076
inflation_2	1.1589***	3.1863***
inflation_3	2.6824***	14.6204***
inflation_4	1.6549***	5.2328***
inflation_5	0.3519	1.4218
inflation_6	-1.6514***	0.1918***
inflation_7	-0.1986	0.8199
inflation_8	0.6441	1.9044
inflation_9	0.6908	1.9952
inflation_10	-0.3948	0.6738
inflation_11	-1.6183***	0.1982***
inflation_12	-0.3395	0.7121
R	-0.2255***	0.7981***
R_1	-0.001***	0.999***
R_2	-0.0001	0.9999
R_3	-0.003***	0.997***
R_4	-0.0023***	0.9977***
R_5	-0.0014***	0.9986***
R_6	-0.0002	0.9998
R_7	-0.0012***	0.9988***
R_8	0.0015***	1.0015***
R_9	-0.0001	0.9999
R_10	0.0003**	1.0003**
R_11	0.0013***	1.0013***
R_12	0.0009***	1.0009***
Food/Non_alcoholic_inflation_1	1.6194***	5.0499***
Food/Non_alcoholic_inflation_2	2.707***	14.984***
Food/Non_alcoholic_inflation_3	-0.4733***	0.6229***
Food/Non_alcoholic_inflation_4	1.6563***	5.2397***
Food/Non_alcoholic_inflation_5	1.4373***	4.2094***
Food/Non_alcoholic_inflation_6	1.2931***	3.644***
Food/Non_alcoholic_inflation_7	-0.3906***	0.6767***
Food/Non_alcoholic_inflation_8	-0.7224***	0.4856***
Food/Non_alcoholic_inflation_9	-1.6432***	0.1934***
Food/Non_alcoholic_inflation_10	-0.3795**	0.6842**

Food/Non_alcoholic_inflation_11	0.3386**	1.403**
Food/Non_alcoholic_inflation_12	-0.2661*	0.7664*
Alcoholic_inflation_1	-1.7111***	0.1807***
Alcoholic_inflation_2	-2.5776***	0.076***
Alcoholic_inflation_3	-1.4218***	0.2413***
Alcoholic_inflation_4	-1.3706***	0.254***
Alcoholic_inflation_5	-0.714***	0.4897***
Alcoholic_inflation_6	-0.3136***	0.7308***
Alcoholic_inflation_7	0.0764	1.0794
Alcoholic_inflation_8	0.3886***	1.4749***
Alcoholic_inflation_9	-0.8555***	0.4251***
Alcoholic_inflation_10	-0.2721**	0.7618**
Alcoholic_inflation_11	0.2036*	1.2258*
Alcoholic_inflation_12	-1.1487***	0.3171***
Energy_inflation_1	0.3059***	1.3578***
Energy_inflation_2	-0.2609***	0.7703***
Energy_inflation_3	-0.0524	0.949
Energy_inflation_4	0.1634***	1.1775***
Energy_inflation_5	0.3533***	1.4238***
Energy_inflation_6	0.8625***	2.3691***
Energy_inflation_7	1.0452***	2.844***
Energy_inflation_8	0.0726	1.0753
Energy_inflation_9	0.1539***	1.1664***
Energy_inflation_10	0.8326***	2.2992***
Energy_inflation_11	0.4557***	1.5773***
Energy_inflation_12	-0.1775***	0.8373***
Non_energy_goods_inflation_1	0.2851**	1.3298**
Non_energy_goods_inflation_2	-0.0443	0.9567
Non_energy_goods_inflation_3	-0.5434***	0.5807***
Non_energy_goods_inflation_4	-0.5272***	0.5903***
Non_energy_goods_inflation_5	0.2698**	1.3097**
Non_energy_goods_inflation_6	-0.5014***	0.6057***
Non_energy_goods_inflation_7	-0.1793	0.8358
Non_energy_goods_inflation_8	-0.0827	0.9206
Non_energy_goods_inflation_9	-0.1961	0.8219
Non_energy_goods_inflation_10	-1.2544***	0.2852***
Non_energy_goods_inflation_11	-0.2595*	0.7714*
Non_energy_goods_inflation_12	0.2737**	1.3148**
Housing_services_inflation_1	0.8829***	2.4179***
Housing_services_inflation_2	-0.5372	0.5844
Housing_services_inflation_3	-0.2335	0.7917
Housing_services_inflation_4	3.5548***	34.9803***
Housing_services_inflation_5	3.7366***	41.9541***

Housing_services_inflation_6	1.5433***	4.68***
Housing_services_inflation_7	-1.0551***	0.3482***
Housing_services_inflation_8	-1.0125***	0.3633***
Housing_services_inflation_9	0.1554	1.1681
Housing_services_inflation_10	-0.4431	0.6421
Housing_services_inflation_11	3.4937***	32.9071***
Housing_services_inflation_12	2.2057***	9.0766***
Transport/travel_services_inflation_1	-0.2231**	0.8001**
Transport/travel_services_inflation_2	0.6262***	1.8705***
Transport/travel_services_inflation_3	1.279***	3.593***
Transport/travel_services_inflation_4	0.3855***	1.4704***
Transport/travel_services_inflation_5	1.1532***	3.1684***
Transport/travel_services_inflation_6	0.7056***	2.025***
Transport/travel_services_inflation_7	0.1295	1.1382
Transport/travel_services_inflation_8	0.5263***	1.6927***
Transport/travel_services_inflation_9	0.4896***	1.6317***
Transport/travel_services_inflation_10	1.166***	3.2092***
Transport/travel_services_inflation_11	0.5488***	1.7312***
Transport/travel_services_inflation_12	0.919***	2.5067***
Communication_inflation_1	2.28***	9.7767***
Communication_inflation_2	0.8146***	2.2582***
Communication_inflation_3	1.4252***	4.1588***
Communication_inflation_4	1.467***	4.3361***
Communication_inflation_5	2.4616***	11.7239***
Communication_inflation_6	2.0618***	7.86***
Communication_inflation_7	1.6907***	5.4231***
Communication_inflation_8	0.4504***	1.5689***
Communication_inflation_9	2.1507***	8.5906***
Communication_inflation_10	1.2345***	3.4367***
Communication_inflation_11	1.3023***	3.6778***
Communication_inflation_12	0.1437	1.1546
Recreational/personal_services_inflation_1	5.6489***	283.9902***
Recreational/personal_services_inflation_2	7.7707***	2370.0432***
Recreational/personal_services_inflation_3	5.8239***	338.2747***
Recreational/personal_services_inflation_4	4.9473***	140.8007***
Recreational/personal_services_inflation_5	7.8834***	2652.9274***
Recreational/personal_services_inflation_6	2.9631***	19.3577***
Recreational/personal_services_inflation_7	1.0344**	2.8133**
Recreational/personal_services_inflation_8	6.4636***	641.3523***
Recreational/personal_services_inflation_9	3.522***	33.8526***
Recreational/personal_services_inflation_10	1.6052***	4.9789***
Recreational/personal_services_inflation_11	3.8547***	47.2128***
Recreational/personal_services_inflation_12	0.2903	1.3368

Miscellaneous_services_inflation_1	0.3847	1.4691
Miscellaneous_services_inflation_2	0.0958	1.1006
Miscellaneous_services_inflation_3	-3.2346***	0.0394***
Miscellaneous_services_inflation_4	-1.91***	0.1481***
Miscellaneous_services_inflation_5	-2.2813***	0.1021***
Miscellaneous_services_inflation_6	-2.2717***	0.1031***
Miscellaneous_services_inflation_7	-4.4146***	0.0121***
Miscellaneous_services_inflation_8	-7.6607***	0.0005***
Miscellaneous_services_inflation_9	-4.8505***	0.0078***
Miscellaneous_services_inflation_10	-7.4182***	0.0006***
Miscellaneous_services_inflation_11	-7.705***	0.0005***
Miscellaneous_services_inflation_12	-4.5622***	0.0104***
Food/Non_alcoholic_expenditure	1.3054***	3.689***
Alcoholic_expenditure	-0.0121	0.988
Energy_expenditure	-0.0508***	0.9504***
Non_energy_goods_expenditure	-1.2835***	0.2771***
Housing_services_expenditure	0.7631***	2.145***
Transport/travel_services_expenditure	2.3459***	10.443***
Communication_expenditure	-0.4735***	0.6228***
Recreational/personal_services_expenditure	0.661***	1.9366***
Miscellaneous_services_expenditure	-0.7357***	0.4792***

Goods Sector Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0621***	1.0641***	0.041***	1.0418***
SW	0.0121***	1.0121***	0.0312***	1.0317***
East_Anglia	-0.0044	0.9956	0.0133***	1.0134***
East_Midlands	0.0068	1.0068	0.0143***	1.0144***
West_Midlands	0.0308***	1.0313***	0.0161***	1.0163***
Yorks_Humber	0.0186***	1.0188***	0.012***	1.0121***
NW	0.0248***	1.0251***	0.0356***	1.0363***
North	-0.0044	0.9956	0.0202***	0.98***
Wales	-0.0378***	0.9629***	0.0117***	0.9884***
Scotland	0.0316***	1.0322***	0.0197***	1.0199***
NI	-0.0002	0.9998	0.0114***	1.0115***
FEB	-0.0525***	0.9488***	-0.0076	0.9925
MAR	0.0352***	1.0359***	-0.0058	0.9942
APR	0.0081	1.0081	-0.0188**	0.9814**
MAY	0.0353***	1.0359***	0.0089	1.0089

JUN	0.0125	1.0126	0.0182**	1.0184**
JUL	0.0181**	1.0182**	0.0145*	1.0146*
AUG	-0.0027	0.9973	0.0138*	1.0139*
SEP	0.0036	1.0036	0.0288***	1.0292***
OCT	-0.0114	0.9887	-0.0042	0.9958
NOV	0.0377***	1.0384***	0.0158*	1.0159*
DEC	-0.0147	0.9854	-0.0058	0.9942
wage	-0.6694***	0.512***	1.0436***	2.8394***
Non-Alcoholic/Beverage	0.1265***	1.1348***	0.0789***	1.082***
			-	
Non-Energy	-0.0488***	0.9524***	0.0338***	0.9668***
SD	0.1997***	1.221***	0.0916***	1.0959***
D	0.2617***	1.2992***	0.1771***	1.1937***
			-	
independent	-0.0714***	0.9311***	0.0064***	0.9936***
			-	
tax	-0.2078***	0.8124***	0.7829***	0.4571***
NX	-0.0028**	0.9972**	-0.191***	0.8261***
			-	
nine_ending	0.0472***	1.0483***	0.0317***	0.9688***
zero_ending	0.0982***	1.1032***	0.0103***	1.0104***
sales	0.3409***	1.4062***	0.4098***	1.5066***
market_share	0.0096***	1.0096***	0.0135***	1.0136***
			-	
increase_increase	-0.1582***	0.8537***	0.2023***	0.8169***
			-	
increase_decrease	-0.0291***	0.9714***	0.0229***	0.9774***
			-	
decrease_decrease	-0.0128***	0.9873***	0.0507***	0.9506***
oil	0.097***	1.1018***	-0.0364**	0.9643**
oil_1	0.0007***	1.0007***	-0.0001	0.9999
oil_2	-0.0003	0.9997	0.0004**	1.0004**
oil_3	-0.0005**	0.9995**	0.0007***	1.0007***
oil_4	-0.0007***	0.9993***	0.0004**	1.0004**
oil_5	-0.0014***	0.9986***	0.0004**	1.0004**
oil_6	-0.002***	0.998***	-0.0001	0.9999
oil_7	0.0001	1.0001	0.0006***	1.0006***
oil_8	-0.0005**	0.9995**	-0.0002	0.9998
oil_9	-0.0003	0.9997	-0.0001	0.9999
oil_10	-0.0007***	0.9993***	0.001***	1.001***
oil_11	-0.0012***	0.9988***	-0.0003	0.9997
			-	
oil_12	-0.0003	0.9997	0.0006***	0.9994***
inflation_1	1.433*	4.1913*	-0.8171	0.4417
inflation_2	2.4354***	11.4203***	-1.3265**	0.2654**

inflation_3	0.5315	1.7015	-1.049*	0.3503*
inflation_4	1.8061**	6.087**	-0.5513	0.5762
inflation_5	5.4446***	231.5005***	-1.0046	0.3662
inflation_6	4.7906***	120.3751***	-2.907***	0.0546***
inflation_7	5.5456***	256.1136***	-0.4053	0.6668
inflation_8	3.5478***	34.7358***	-1.6342**	0.1951**
inflation_9	4.8094***	122.6635***	-1.1215*	0.3258*
inflation_10	0.4454	1.5611	-0.651	0.5215
			-	
inflation_11	-0.1691	0.8444	2.0036***	0.1348***
inflation_12	0.0938	1.0984	-0.611	0.5428
			-	
R	-0.026	0.9743	0.1804***	0.8349***
			-	
R_1	0.0039***	1.0039***	0.0015***	0.9985***
			-	
R_2	0.0061***	1.0061***	0.0014***	0.9986***
			-	
R_3	-0.0046***	0.9954***	0.0028***	0.9972***
R_4	-0.0011**	0.9989**	-0.003***	0.997***
			-	
R_5	-0.0041***	0.9959***	0.0008***	0.9992***
			-	
R_6	0.0066***	1.0067***	0.0011***	0.9989***
			-	
R_7	0.0052***	1.0052***	0.0015***	0.9985***
R_8	0.0076***	1.0076***	0.0013***	1.0013***
R_9	0.0039***	1.0039***	0.0003*	1.0003*
R_10	0.0111***	1.0112***	0.0001	1.0001
R_11	0.0105***	1.0106***	0.0014***	1.0014***
R_12	0.0061***	1.0061***	0.0011***	1.0011***
Food/Non_alcoholic_inflation_1	0.2091	1.2325	2.9969***	20.0227***
Food/Non_alcoholic_inflation_2	1.9011***	6.6935***	2.0049***	7.4251***
Food/Non_alcoholic_inflation_3	-0.7833***	0.4569***	1.3857***	3.9976***
Food/Non_alcoholic_inflation_4	-1.1842***	0.306***	1.0472***	2.8496***
Food/Non_alcoholic_inflation_5	1.6958***	5.451***	0.4483	1.5657
Food/Non_alcoholic_inflation_6	2.4291***	11.3483***	-1.808***	0.164***
			-	
Food/Non_alcoholic_inflation_7	1.1402***	3.1274***	0.8937***	0.4092***
Food/Non_alcoholic_inflation_8	-1.7009***	0.1825***	-0.3906	0.6767
			-	
Food/Non_alcoholic_inflation_9	-2.6041***	0.074***	0.7243***	0.4847***
			-	
Food/Non_alcoholic_inflation_10	0.2702	1.3102	1.6088***	0.2001***
Food/Non_alcoholic_inflation_11	-0.5152*	0.5974*	-0.2766	0.7584

Food/Non_alcoholic_inflation_12	0.9232***	2.5173***	1.3482***	0.2597***
Alcoholic_inflation_1	2.9051***	18.2677***	-2.623***	0.0726***
Alcoholic_inflation_2	0.1242	1.1323	2.5629***	0.0771***
Alcoholic_inflation_3	-0.7196**	0.487**	1.7262***	0.178***
Alcoholic_inflation_4	0.7433**	2.1029**	1.7194***	0.1792***
Alcoholic_inflation_5	2.7398***	15.4835***	-0.2197	0.8028
Alcoholic_inflation_6	4.2147***	67.6719***	0.1771	1.1938
Alcoholic_inflation_7	2.3527***	10.5137***	0.2507	1.2849
Alcoholic_inflation_8	1.1893***	3.2848***	-0.4249**	0.6538**
Alcoholic_inflation_9	0.0445	1.0455	-0.77***	0.463***
Alcoholic_inflation_10	0.8357**	2.3065**	0.5381***	0.5839***
Alcoholic_inflation_11	1.8314***	6.2425***	0.8075***	0.446***
Alcoholic_inflation_12	-3.3891***	0.0337***	0.7772***	0.4597***
Energy_inflation_1	0.448***	1.5652***	0.3255***	1.3847***
Energy_inflation_2	0.015	1.0151	0.0049	1.0049
Energy_inflation_3	-0.6746***	0.5094***	-0.0256	0.9747
Energy_inflation_4	0.6293***	1.8763***	0.2884***	1.3343***
Energy_inflation_5	0.4665***	1.5944***	0.5161***	1.6754***
Energy_inflation_6	0.5666***	1.7623***	0.3026***	1.3534***
Energy_inflation_7	0.8691***	2.3847***	0.545***	1.7246***
Energy_inflation_8	-0.3916***	0.676***	0.0375	1.0382
Energy_inflation_9	-0.6338***	0.5306***	-0.2133**	0.8079**
Energy_inflation_10	1.248***	3.4834***	0.3164***	1.3722***
Energy_inflation_11	1.1022***	3.0107***	0.3688***	1.446***
Energy_inflation_12	0.3622***	1.4364***	0.4345***	1.5442***
Non_energy_goods_inflation_1	1.0032***	2.7269***	0.0157	1.0158
Non_energy_goods_inflation_2	0.6887***	1.9912***	0.777***	2.1749***
Non_energy_goods_inflation_3	0.385*	1.4696*	0.4899**	1.6321**
Non_energy_goods_inflation_4	0.4521**	1.5716**	1.1643***	0.3121***
Non_energy_goods_inflation_5	-0.1594	0.8526	-1.507***	0.2216***
Non_energy_goods_inflation_6	0.2546	1.29	2.1419***	0.1174***
Non_energy_goods_inflation_7	0.43**	1.5373**	1.3643***	0.2556***
Non_energy_goods_inflation_8	0.4892**	1.631**	0.6473***	0.5235***
Non_energy_goods_inflation_9	0.7653***	2.1497***	-0.5365**	0.5848**

Non_energy_goods_inflation_10	0.1823	1.2	1.5843***	0.2051***
Non_energy_goods_inflation_11	-0.0794	0.9237	1.9824***	0.1377***
Non_energy_goods_inflation_12	0.1599	1.1734	-1.035***	0.3552***
Housing_services_inflation_1	-9.3883***	0.0001***	9.8455***	18873.5151*
Housing_services_inflation_2	11.2167***	0***	10.1922**	26693.3933*
Housing_services_inflation_3	-4.6957***	0.0091***	9.1334***	9259.3368***
Housing_services_inflation_4	0.3375	1.4014	8.015***	3026.1244***
Housing_services_inflation_5	-3.0979***	0.0451***	6.0549***	426.1819***
Housing_services_inflation_6	-1.5576***	0.2106***	0.5879	1.8002
Housing_services_inflation_7	-3.5085***	0.0299***	-1.2135	0.2972
Housing_services_inflation_8	-0.0117	0.9884	0.3399	1.4048
Housing_services_inflation_9	-1.0864*	0.3374*	3.4722***	0.031***
Housing_services_inflation_10	-2.0743***	0.1256***	-2.208***	0.1099***
Housing_services_inflation_11	-1.2408**	0.2892**	9.3606***	11620.959***
Housing_services_inflation_12	-1.0343*	0.3555*	0.0577	1.0594
Transport/travel_services_inflation_1	-1.6251***	0.1969***	0.0636	1.0657
Transport/travel_services_inflation_2	0.2369	1.2673	0.2983*	1.3476*
Transport/travel_services_inflation_3	1.4443***	4.2391***	0.5593***	1.7495***
Transport/travel_services_inflation_4	1.6062***	4.9839***	1.0953***	2.99***
Transport/travel_services_inflation_5	0.0059	1.0059	0.3423**	1.4081**
Transport/travel_services_inflation_6	-0.4006*	0.6699*	0.2187	1.2445
Transport/travel_services_inflation_7	-0.5141**	0.5981**	0.1656	1.1801
Transport/travel_services_inflation_8	-0.3642	0.6948	-0.1233	0.884
Transport/travel_services_inflation_9	0.2344	1.2642	0.0057	1.0057
Transport/travel_services_inflation_10	0.5689**	1.7663**	0.4495***	1.5675***
Transport/travel_services_inflation_11	-0.3166	0.7286	0.7371***	2.09***
Transport/travel_services_inflation_12	1.0691***	2.9128***	1.0297***	2.8001***
Communication_inflation_1	1.1296***	3.0943***	1.2889***	3.6288***
Communication_inflation_2	-0.2754	0.7593	-0.3563*	0.7003*
Communication_inflation_3	-1.4305***	0.2392***	0.9704***	2.6391***
Communication_inflation_4	-0.9474***	0.3877***	1.6146***	5.0261***
Communication_inflation_5	-0.98***	0.3753***	2.1653***	8.7175***
Communication_inflation_6	-1.8011***	0.1651***	3.265***	26.1795***
Communication_inflation_7	1.4016***	4.0616***	3.4395***	31.1704***
Communication_inflation_8	-2.0724***	0.1259***	0.4939**	1.6386**
Communication_inflation_9	0.8896***	2.4341***	1.6964***	5.4544***
Communication_inflation_10	0.5572**	1.7458**	0.5187**	1.6799**
Communication_inflation_11	0.5153*	1.6741*	0.7325***	2.0803***
Communication_inflation_12	-1.1077***	0.3303***	1.8633***	6.4451***

Recreational/personal_services_inflation			11.8694**	
_1	-3.9508***	0.0192***	*	142830***
Recreational/personal_services_inflation			12.2245**	
_2	-1.733*	0.1767*	*	203720***
Recreational/personal_services_inflation			3.7556***	42.7617***
_3	-2.51***	0.0813***		
Recreational/personal_services_inflation			8.5072***	4950.1427***
_4	-2.6865***	0.0681***		
Recreational/personal_services_inflation		2820.3622*		
_5	7.9446***	**	9.1487***	9401.8531***
Recreational/personal_services_inflation			7.5111***	1828.233***
_6	-0.5036	0.6044		
Recreational/personal_services_inflation			0.9061	2.4747
_7	0.315	1.3702		
Recreational/personal_services_inflation			8.1014***	3299.0295***
_8	2.6213***	13.7536***		
Recreational/personal_services_inflation		167.6867***	1.6404**	5.1574**
_9	5.1221***			
Recreational/personal_services_inflation			3.9739***	53.1936***
_10	0.4222	1.5253		
Recreational/personal_services_inflation			3.7734***	43.5293***
_11	-1.084	0.3382		
Recreational/personal_services_inflation			3.2258***	25.173***
_12	-6.6195***	0.0013***		
Miscellaneous_services_inflation_1	-1.3405***	0.2617***	3.3945***	29.8007***
Miscellaneous_services_inflation_2	-2.211***	0.1096***	3.9711***	53.0452***
Miscellaneous_services_inflation_3	-2.633***	0.0719***	2.1154***	8.2931***
Miscellaneous_services_inflation_4	-3.113***	0.0445***	-0.3876	0.6787
Miscellaneous_services_inflation_5	-0.1751	0.8394	1.2517**	3.4964**
Miscellaneous_services_inflation_6	1.4933***	4.4518***	2.5523***	12.8368***
Miscellaneous_services_inflation_7	-5.2365***	0.0053***	-1.1935**	0.3032**
Miscellaneous_services_inflation_8	-4.6309***	0.0097***	4.1859***	0.0152***
Miscellaneous_services_inflation_9	-3.8965***	0.0203***	-0.2666	0.766
Miscellaneous_services_inflation_10	-9.4679***	0.0001***	1.8463***	0.1578***
Miscellaneous_services_inflation_11	12.2692***	0***	3.7154***	0.0243***
Miscellaneous_services_inflation_12	-6.0076***	0.0025***	3.6257***	0.0266***
Food/Non_alcoholic_expenditure	-1.8609***	0.1555***	0.5059***	1.6585***
Alcoholic_expenditure	-2.3264***	0.0976***	0.0362*	1.0369*
Energy_expenditure	0.6987***	2.0112***	0.112***	1.1185***
Non_energy_goods_expenditure	0.0616	1.0635	1.1216***	0.3258***
Housing_services_expenditure	-2.1387***	0.1178***	1.7719***	5.8822***
Transport/travel_services_expenditure	4.9651***	143.3247***	3.3185***	27.6188***

Communication_expenditure	-1.5764***	0.2067***	1.3419***	0.2614***
Recreational/personal_services_expenditure	-0.2477	0.7806	-0.1139	0.8923
Miscellaneous_services_expenditure	-0.1472	0.8631	0.8752***	0.4168***

Goods Sector Results		
without sales	full sample	
	coef	H.R.
SE	0.0438***	1.0448***
SW	0.0043	1.0043
East_Anglia	-0.0098***	0.9902***
East_Midlands	0.0004	1.0004
West_Midlands	0.0175***	1.0177***
Yorks_Humber	0.007**	1.0071**
NW	0.0315***	1.032***
North	-0.0275***	0.9729***
Wales	-0.0378***	0.9629***
Scotland	0.0216***	1.0218***
NI	0.0005	1.0005
FEB	-0.0094	0.9907
MAR	0.026***	1.0264***
APR	-0.0081	0.992
MAY	0.0128**	1.0129**
JUN	-0.0121*	0.988*
JUL	0.0033	1.0033
AUG	-0.0191***	0.9811***
SEP	0.0172***	1.0173***
OCT	-0.0099	0.9901
NOV	0.0634***	1.0654***
DEC	0.0145**	1.0146**
wage	1.9626***	7.1175***
Non-Alcoholic/Beverage	0.1053***	1.111***
Non-Energy	-0.034***	0.9666***
SD	0.1474***	1.1588***
D	0.2633***	1.3012***
independent	-0.0664***	0.9358***
tax	-0.6482***	0.523***
NX	-0.0494***	0.9518***
nine_ending	-0.0149***	0.9853***
zero_ending	-0.0118***	0.9882***

market_share	0.0095***	1.0095***
increase_increase	-0.2073***	0.8128***
increase_decrease	-0.0365***	0.9641***
decrease_decrease	-0.0315***	0.969***
oil	0.0737***	1.0765***
oil_1	0.0016***	1.0016***
oil_2	0.0017***	1.0017***
oil_3	0.001***	1.001***
oil_4	0.0016***	1.0016***
oil_5	0.0008***	1.0008***
oil_6	-0.0004***	0.9996***
oil_7	0.0006***	1.0006***
oil_8	-0.0001	0.9999
oil_9	-0.0004***	0.9996***
oil_10	-0.0004***	0.9996***
oil_11	-0.0014***	0.9986***
oil_12	-0.0008***	0.9992***
inflation_1	-0.9894**	0.3718**
inflation_2	0.7515	2.1202
inflation_3	3.2057***	24.6734***
inflation_4	2.0236***	7.5656***
inflation_5	0.2854	1.3303
inflation_6	-0.7148	0.4893
inflation_7	0.1624	1.1763
inflation_8	0.6359	1.8887
inflation_9	0.5069	1.6601
inflation_10	0.6183	1.8558
inflation_11	-1.2089**	0.2985**
inflation_12	-0.5252	0.5914
R	-0.2154***	0.8062***
R_1	-0.0003*	0.9997*
R_2	-0.0001	0.9999
R_3	-0.0032***	0.9969***
R_4	-0.0019***	0.9981***
R_5	-0.0012***	0.9988***
R_6	-0.0003**	0.9997**
R_7	-0.0005***	0.9995***
R_8	0.0014***	1.0014***
R_9	0	1
R_10	0.0007***	1.0007***
R_11	0.0012***	1.0012***
R_12	0.0008***	1.0008***
Food/Non_alcoholic_inflation_1	1.0707***	2.9173***

Food/Non_alcoholic_inflation_2	2.7764***	16.061***
Food/Non_alcoholic_inflation_3	-0.9236***	0.3971***
Food/Non_alcoholic_inflation_4	1.9031***	6.7069***
Food/Non_alcoholic_inflation_5	1.6459***	5.1856***
Food/Non_alcoholic_inflation_6	0.7862***	2.1951***
Food/Non_alcoholic_inflation_7	0.0695	1.072
Food/Non_alcoholic_inflation_8	-0.1781	0.8368
Food/Non_alcoholic_inflation_9	-1.5393***	0.2145***
Food/Non_alcoholic_inflation_10	-0.2421	0.7849
Food/Non_alcoholic_inflation_11	0.5752***	1.7775***
Food/Non_alcoholic_inflation_12	-0.1038	0.9014
Alcoholic_inflation_1	-1.5015***	0.2228***
Alcoholic_inflation_2	-2.3734***	0.0932***
Alcoholic_inflation_3	-1.5604***	0.2101***
Alcoholic_inflation_4	-1.0695***	0.3432***
Alcoholic_inflation_5	-0.837***	0.433***
Alcoholic_inflation_6	-0.5082***	0.6016***
Alcoholic_inflation_7	-0.2401*	0.7866*
Alcoholic_inflation_8	0.8486***	2.3363***
Alcoholic_inflation_9	-0.6964***	0.4984***
Alcoholic_inflation_10	-0.3171**	0.7282**
Alcoholic_inflation_11	-0.1313	0.8769
Alcoholic_inflation_12	-0.9205***	0.3983***
Energy_inflation_1	0.3464***	1.414***
Energy_inflation_2	-0.3017***	0.7396***
Energy_inflation_3	-0.0894	0.9145
Energy_inflation_4	0.1783***	1.1952***
Energy_inflation_5	0.2925***	1.3397***
Energy_inflation_6	0.9754***	2.6522***
Energy_inflation_7	1.0782***	2.9392***
Energy_inflation_8	0.207***	1.23***
Energy_inflation_9	0.2116***	1.2357***
Energy_inflation_10	0.9372***	2.5528***
Energy_inflation_11	0.4774***	1.6119***
Energy_inflation_12	-0.1946***	0.8231***
Non_energy_goods_inflation_1	0.2819*	1.3256*
Non_energy_goods_inflation_2	0.2371	1.2676
Non_energy_goods_inflation_3	-0.5305***	0.5883***
Non_energy_goods_inflation_4	-0.5396***	0.583***
Non_energy_goods_inflation_5	-0.1488	0.8617
Non_energy_goods_inflation_6	-0.0982	0.9065
Non_energy_goods_inflation_7	0.1717	1.1873
Non_energy_goods_inflation_8	0.0311	1.0316

Non_energy_goods_inflation_9	-0.0212	0.979
Non_energy_goods_inflation_10	-0.9787***	0.3758***
Non_energy_goods_inflation_11	-0.2293	0.7951
Non_energy_goods_inflation_12	0.0849	1.0887
Housing_services_inflation_1	1.0216***	2.7776***
Housing_services_inflation_2	-0.3074	0.7354
Housing_services_inflation_3	-0.592*	0.5532*
Housing_services_inflation_4	2.5986***	13.4454***
Housing_services_inflation_5	5.1764***	177.0498***
Housing_services_inflation_6	2.005***	7.4258***
Housing_services_inflation_7	-0.6488*	0.5227*
Housing_services_inflation_8	0.2209	1.2471
Housing_services_inflation_9	0.8071**	2.2413**
Housing_services_inflation_10	0.4408	1.5539
Housing_services_inflation_11	5.8182***	336.3797***
Housing_services_inflation_12	3.1968***	24.4544***
Transport/travel_services_inflation_1	-0.1974	0.8209
Transport/travel_services_inflation_2	0.86***	2.3632***
Transport/travel_services_inflation_3	1.6358***	5.1337***
Transport/travel_services_inflation_4	0.3991***	1.4905***
Transport/travel_services_inflation_5	1.2374***	3.4468***
Transport/travel_services_inflation_6	0.9076***	2.4785***
Transport/travel_services_inflation_7	0.2378*	1.2684*
Transport/travel_services_inflation_8	0.615***	1.8496***
Transport/travel_services_inflation_9	1.2232***	3.3981***
Transport/travel_services_inflation_10	1.4165***	4.1227***
Transport/travel_services_inflation_11	0.5777***	1.7818***
Transport/travel_services_inflation_12	1.2453***	3.4741***
Communication_inflation_1	2.2583***	9.5664***
Communication_inflation_2	0.9191***	2.507***
Communication_inflation_3	1.7468***	5.7363***
Communication_inflation_4	0.9561***	2.6016***
Communication_inflation_5	1.9298***	6.8882***
Communication_inflation_6	2.2247***	9.2508***
Communication_inflation_7	1.666***	5.2911***
Communication_inflation_8	0.4678***	1.5964***
Communication_inflation_9	2.524***	12.479***
Communication_inflation_10	1.3141***	3.7213***
Communication_inflation_11	1.0563***	2.8756***
Communication_inflation_12	0.1189	1.1263
Recreational/personal_services_inflation_1	5.0349***	153.6797***
Recreational/personal_services_inflation_2	9.0537***	8550.1998***
Recreational/personal_services_inflation_3	7.5683***	1935.8567***

Recreational/personal_services_inflation_4	6.7301***	837.2094***
Recreational/personal_services_inflation_5	10.0968***	24264.7572***
Recreational/personal_services_inflation_6	2.7562***	15.7404***
Recreational/personal_services_inflation_7	1.8272***	6.2166***
Recreational/personal_services_inflation_8	6.3209***	556.0578***
Recreational/personal_services_inflation_9	5.018***	151.1125***
Recreational/personal_services_inflation_10	1.8575***	6.4074***
Recreational/personal_services_inflation_11	6.1251***	457.1999***
Recreational/personal_services_inflation_12	0.3207	1.3781
Miscellaneous_services_inflation_1	-0.1332	0.8753
Miscellaneous_services_inflation_2	-0.884***	0.4131***
Miscellaneous_services_inflation_3	-4.8473***	0.0078***
Miscellaneous_services_inflation_4	-2.385***	0.0921***
Miscellaneous_services_inflation_5	-2.4007***	0.0907***
Miscellaneous_services_inflation_6	-2.8746***	0.0564***
Miscellaneous_services_inflation_7	-4.9017***	0.0074***
Miscellaneous_services_inflation_8	-7.9587***	0.0003***
Miscellaneous_services_inflation_9	-6.7209***	0.0012***
Miscellaneous_services_inflation_10	-8.3225***	0.0002***
Miscellaneous_services_inflation_11	-8.6808***	0.0002***
Miscellaneous_services_inflation_12	-5.1936***	0.0056***
Food/Non_alcoholic_expenditure	1.6482***	5.1978***
Alcoholic_expenditure	-0.1365***	0.8724***
Energy_expenditure	0.0477**	1.0489**
Non_energy_goods_expenditure	-1.019***	0.3609***
Housing_services_expenditure	0.7208***	2.056***
Transport/travel_services_expenditure	2.6165***	13.688***
Communication_expenditure	-0.368***	0.6921***
Recreational/personal_services_expenditure	0.4059***	1.5006***
Miscellaneous_services_expenditure	-0.7976***	0.4504***

Goods Sector Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.068***	1.0704***	0.038***	1.0387***
SW	0.004	1.004	0.0156***	1.0157***
East_Anglia	-0.0116**	0.9885**	0.0017	1.0017
East_Midlands	0.0023	1.0023	0.0001	1.0001
West_Midlands	0.03***	1.0304***	0.0067	1.0067
Yorks_Humber	0.0127***	1.0127***	0.0067*	1.0068*
NW	0.0224***	1.0226***	0.0384***	1.0391***

			-	
North	-0.0194***	0.9808***	0.0364***	0.9643***
			-	
Wales	-0.045***	0.956***	0.0285***	0.9719***
Scotland	0.0261***	1.0265***	0.0168***	1.0169***
NI	-0.0087	0.9914	-0.001	0.999
FEB	-0.0485***	0.9527***	0.0048	1.0048
MAR	0.0437***	1.0447***	0.0035	1.0035
APR	0.011	1.011	-0.0151*	0.985*
MAY	0.0348***	1.0354***	0.0138	1.0139
JUN	0.0114	1.0114	-0.0206**	0.9796**
JUL	-0.0026	0.9974	0.0022	1.0022
AUG	-0.0033	0.9967	0.0024	1.0024
SEP	0.0119	1.012	0.017*	1.0171*
OCT	-0.0183	0.9819	-0.0052	0.9948
NOV	0.0391***	1.0398***	0.0233**	1.0235**
DEC	-0.0129	0.9872	0.0198**	1.02**
wage	-0.6114***	0.5426***	1.2919***	3.6397***
Non-Alcoholic/Beverage	0.1299***	1.1387***	0.0527***	1.0541***
			-	
Non-Energy	-0.0388***	0.962***	0.0155***	0.9847***
SD	0.1774***	1.1941***	0.1177***	1.1249***
D	0.3064***	1.3585***	0.2063***	1.2291***
			-	
independent	-0.1158***	0.8907***	0.0463***	0.9547***
			-	
tax	-0.1895**	0.8274**	0.7308***	0.4815***
			-	
NX	-0.002	0.998	0.2072***	0.8129***
			-	
nine_ending	0.052***	1.0534***	0.0601***	0.9416***
			-	
zero_ending	0.059***	1.0608***	0.0488***	0.9523***
market_share	0.0032***	1.0032***	0.0126***	1.0127***
			-	
increase_increase	-0.1865***	0.8298***	0.2217***	0.8011***
			-	
increase_decrease	-0.0541***	0.9473***	0.0376***	0.9631***
			-	
decrease_decrease	-0.0329***	0.9677***	0.0251***	0.9752***
oil	0.0475**	1.0487**	0.0505**	1.0518**
oil_1	0.0001	1.0001	0.0004*	1.0004*
oil_2	-0.0007**	0.9993**	0.001***	1.001***
oil_3	-0.0004	0.9996	0.0009***	1.0009***
oil_4	-0.0008***	0.9992***	0.0008***	1.0008***

oil_5	-0.001***	0.999***	0.0008***	1.0008***
oil_6	-0.0018***	0.9982***	0.0001	1.0001
oil_7	0.0002	1.0002	0.001***	1.001***
oil_8	-0.0007**	0.9993**	-0.0001	0.9999
oil_9	-0.0002	0.9998	0.0004*	1.0004*
oil_10	-0.0007**	0.9993**	0.001***	1.001***
oil_11	-0.0014***	0.9986***	-0.0002	0.9998
oil_12	-0.0006**	0.9994**	-0.0003	0.9997
inflation_1	1.6153*	5.0294*	-1.4389**	0.2372**
			-	
inflation_2	3.5876***	36.1486***	2.2656***	0.1038***
inflation_3	0.47	1.6	0.2678	1.3071
inflation_4	3.459***	31.7852***	-0.4142	0.6609
inflation_5	5.9907***	399.6848***	-1.296*	0.2736*
inflation_6	5.7062***	300.7362***	-1.7191**	0.1792**
inflation_7	6.8907***	983.1266***	-1.1316	0.3225
inflation_8	4.6103***	100.5104***	-1.6612**	0.1899**
			-	
inflation_9	5.7128***	302.7287***	2.0304***	0.1313***
inflation_10	1.673*	5.3281*	-0.111	0.8949
inflation_11	0.8902	2.4357	-1.8533**	0.1567**
inflation_12	-0.1201	0.8869	-0.9101	0.4025
			-	
R	0.0896	1.0937	0.2099***	0.8107***
			-	
R_1	0.0043***	1.0043***	0.0013***	0.9987***
			-	
R_2	0.0069***	1.007***	0.0014***	0.9986***
			-	
R_3	-0.0054***	0.9946***	0.0028***	0.9972***
			-	
R_4	-0.0004	0.9996	0.0024***	0.9976***
R_5	-0.0037***	0.9963***	-0.0003	0.9997
			-	
R_6	0.007***	1.007***	0.0014***	0.9986***
			-	
R_7	0.0045***	1.0045***	0.0007***	0.9993***
R_8	0.0079***	1.008***	0.001***	1.001***
R_9	0.0036***	1.0036***	0.0003	1.0003
R_10	0.0114***	1.0115***	0.0005**	1.0005**
R_11	0.0123***	1.0124***	0.0009***	1.0009***
R_12	0.0074***	1.0074***	0.0013***	1.0013***
Food/Non_alcoholic_inflation_1	-0.4504	0.6374	2.645***	14.0835***
Food/Non_alcoholic_inflation_2	2.3492***	10.4774***	1.7461***	5.7322***
Food/Non_alcoholic_inflation_3	-0.213	0.8082	0.9286***	2.5311***

Food/Non_alcoholic_inflation_4	-0.6479*	0.5232*	1.3282***	3.7744***
Food/Non_alcoholic_inflation_5	2.5091***	12.2942***	0.6755**	1.9651**
			-	
Food/Non_alcoholic_inflation_6	2.5388***	12.6639***	2.7274***	0.0654***
Food/Non_alcoholic_inflation_7	2.0425***	7.7095***	-0.7473**	0.4736**
			-	
Food/Non_alcoholic_inflation_8	-0.7734**	0.4614**	0.8246***	0.4384***
			-	
Food/Non_alcoholic_inflation_9	-2.6387***	0.0715***	0.8605***	0.423***
			-	
Food/Non_alcoholic_inflation_10	0.1191	1.1265	1.5289***	0.2168***
Food/Non_alcoholic_inflation_11	-0.4032	0.6682	-0.616**	0.5401**
			-	
Food/Non_alcoholic_inflation_12	0.7727**	2.1655**	0.9197***	0.3986***
			-	
Alcoholic_inflation_1	3.5071***	33.352***	2.6509***	0.0706***
			-	
Alcoholic_inflation_2	0.3037	1.3548	2.6706***	0.0692***
			-	
Alcoholic_inflation_3	-1.1986***	0.3016***	1.6317***	0.1956***
			-	
Alcoholic_inflation_4	0.4003	1.4922	1.7394***	0.1756***
Alcoholic_inflation_5	2.5106***	12.3122***	-0.3577*	0.6993*
Alcoholic_inflation_6	4.6204***	101.5378***	-0.3541*	0.7018*
Alcoholic_inflation_7	2.2847***	9.8226***	-0.3228*	0.7241*
Alcoholic_inflation_8	2.0012***	7.3977***	-0.2093	0.8112
			-	
Alcoholic_inflation_9	0.3645	1.4399	0.7122***	0.4906***
Alcoholic_inflation_10	0.3455	1.4127	-0.685***	0.5041***
			-	
Alcoholic_inflation_11	2.1185***	8.3183***	1.2895***	0.2754***
Alcoholic_inflation_12	-3.6194***	0.0268***	-0.4144**	0.6608**
Energy_inflation_1	0.7566***	2.131***	0.4121***	1.51***
Energy_inflation_2	0.1926	1.2124	-0.1063	0.8992
Energy_inflation_3	-0.4402***	0.6439***	0.0177	1.0179
Energy_inflation_4	0.8424***	2.3219***	0.1476	1.159
Energy_inflation_5	0.5934***	1.8101***	0.5992***	1.8207***
Energy_inflation_6	0.7968***	2.2185***	0.6983***	2.0102***
Energy_inflation_7	1.1458***	3.1449***	0.6583***	1.9315***
Energy_inflation_8	-0.246*	0.7819*	0.116	1.123
Energy_inflation_9	-0.4453***	0.6406***	-0.2383**	0.7879**
Energy_inflation_10	1.6108***	5.007***	0.2247**	1.2519**
Energy_inflation_11	1.3547***	3.8757***	0.4565***	1.5785***
Energy_inflation_12	0.5993***	1.8208***	0.4266***	1.5321***
Non_energy_goods_inflation_1	1.0281***	2.7956***	0.0867	1.0906

Non_energy_goods_inflation_2	0.9175***	2.5029***	0.9004***	2.4606***
Non_energy_goods_inflation_3	0.3808*	1.4635*	0.5643**	1.7582**
			-	
Non_energy_goods_inflation_4	0.5251**	1.6906**	1.1313***	0.3226***
Non_energy_goods_inflation_5	-0.5008**	0.606**	-1.867***	0.1546***
			-	
Non_energy_goods_inflation_6	0.4593*	1.583*	1.6747***	0.1874***
			-	
Non_energy_goods_inflation_7	0.4832**	1.6213**	1.1248***	0.3247***
			-	
Non_energy_goods_inflation_8	0.4176*	1.5183*	0.7618***	0.4668***
			-	
Non_energy_goods_inflation_9	0.8267***	2.2857***	0.6445***	0.5249***
			-	
Non_energy_goods_inflation_10	0.3936	1.4823	1.4797***	0.2277***
			-	
Non_energy_goods_inflation_11	-0.1511	0.8597	1.6159***	0.1987***
			-	
Non_energy_goods_inflation_12	0.0997	1.1048	1.3584***	0.2571***
				16770.5393*
Housing_services_inflation_1	-8.3654***	0.0002***	9.7274***	**
	-			
Housing_services_inflation_2	11.2069***	0***	8.8813***	7196.3331***
Housing_services_inflation_3	-5.4583***	0.0043***	3.9605***	52.481***
Housing_services_inflation_4	-0.9778	0.3762	5.586***	266.6693***
Housing_services_inflation_5	-3.3131***	0.0364***	7.5111***	1828.2702***
Housing_services_inflation_6	-2.4728***	0.0844***	0.8377	2.3112
Housing_services_inflation_7	-4.9488***	0.0071***	1.1351	3.1114
Housing_services_inflation_8	-0.6862	0.5035	4.1369***	62.6092***
Housing_services_inflation_9	-1.8232***	0.1615***	-0.8514	0.4268
Housing_services_inflation_10	-2.8515***	0.0578***	-0.0484	0.9528
				17016.8919*
Housing_services_inflation_11	-0.7975	0.4505	9.742***	**
Housing_services_inflation_12	-1.222*	0.2946*	2.5185***	12.4102***
Transport/travel_services_inflation_1	-2.0046***	0.1347***	0.2332	1.2626
Transport/travel_services_inflation_2	0.5332**	1.7044**	0.3444*	1.4111*
Transport/travel_services_inflation_3	1.3986***	4.0495***	0.8983***	2.4555***
Transport/travel_services_inflation_4	1.4913***	4.4429***	1.187***	3.2773***
Transport/travel_services_inflation_5	0.1382	1.1482	0.2751	1.3167
Transport/travel_services_inflation_6	-0.7472***	0.4737***	0.8361***	2.3073***
Transport/travel_services_inflation_7	-0.4832*	0.6168*	0.2341	1.2638
Transport/travel_services_inflation_8	0.0315	1.032	0.163	1.177
Transport/travel_services_inflation_9	0.6912**	1.9961**	0.5371***	1.7111***
Transport/travel_services_inflation_10	0.7411***	2.0982***	0.8248***	2.2814***
Transport/travel_services_inflation_11	-0.0313	0.9692	1.0912***	2.9779***

Transport/travel_services_inflation_12	1.3633***	3.909***	1.4123***	4.1052***
Communication_inflation_1	0.9394***	2.5585***	1.1294***	3.0939***
Communication_inflation_2	-0.238	0.7882	-0.356	0.7005
Communication_inflation_3	-1.6143***	0.199***	1.7079***	5.5174***
Communication_inflation_4	-1.1176***	0.3271***	1.6045***	4.9753***
Communication_inflation_5	-1.8533***	0.1567***	1.9849***	7.2781***
Communication_inflation_6	-1.735***	0.1764***	3.4624***	31.8921***
Communication_inflation_7	2.0671***	7.9022***	2.8313***	16.9683***
Communication_inflation_8	-2.2883***	0.1014***	0.4964*	1.6428*
Communication_inflation_9	1.7323***	5.6537***	1.7757***	5.9043***
Communication_inflation_10	0.1946	1.2148	0.3663	1.4425
Communication_inflation_11	0.7614**	2.1413**	0.1337	1.1431
Communication_inflation_12	-1.133***	0.3221***	1.815***	6.1409***
Recreational/personal_services_inflation_1			12.0616**	
	-6.5756***	0.0014***	*	173090***
Recreational/personal_services_inflation_2			14.3039**	
	-0.2488	0.7797	*	1629700***
Recreational/personal_services_inflation_3				
	-3.2699***	0.038***	8.1059***	3313.8656***
Recreational/personal_services_inflation_4			12.3203**	
	-3.5609***	0.0284***	*	224210***
Recreational/personal_services_inflation_5				
		7759.3542*		
	8.9567***	**	13.253***	569800***
Recreational/personal_services_inflation_6				
	-1.0129	0.3632	6.2549***	520.55***
Recreational/personal_services_inflation_7				
	-0.0114	0.9887	3.4519***	31.5598***
Recreational/personal_services_inflation_8				
	1.9354*	6.9268*	7.4594***	1736.0464***
Recreational/personal_services_inflation_9				
	5.9797***	395.3409***	1.3759	3.9585
Recreational/personal_services_inflation_10				
	0.1224	1.1302	2.2432**	9.4231**
Recreational/personal_services_inflation_11				
	-1.8871*	0.1515*	5.2271***	186.2564***
Recreational/personal_services_inflation_12				
	-7.9667***	0.0003***	3.708***	40.774***
Miscellaneous_services_inflation_1				
	-0.6791	0.5071	2.8282***	16.9157***
Miscellaneous_services_inflation_2				
	-2.6909***	0.0678***	1.6895***	5.4166***
Miscellaneous_services_inflation_3				
	-4.1437***	0.0159***	1.9176***	6.8047***
Miscellaneous_services_inflation_4				
	-3.8178***	0.022***	-1.017	0.3617
Miscellaneous_services_inflation_5				
	-1.1746*	0.3089*	0.1745	1.1906
Miscellaneous_services_inflation_6				
	0.2297	1.2583	2.001***	7.3961***
			-	
Miscellaneous_services_inflation_7				
	-3.5712***	0.0281***	2.5284***	0.0798***
Miscellaneous_services_inflation_8				
	-3.9615***	0.019***	-	0.0154***

			4.1752***	
			-	
Miscellaneous_services_inflation_9	-4.4247***	0.012***	2.9278***	0.0535***
			-	
Miscellaneous_services_inflation_10	-9.0186***	0.0001***	3.0884***	0.0456***
			-	
Miscellaneous_services_inflation_11	13.1451***	0***	4.4111***	0.0121***
			-	
Miscellaneous_services_inflation_12	-6.8078***	0.0011***	4.9311***	0.0072***
Food/Non_alcoholic_expenditure	-2.3493***	0.0954***	0.8121***	2.2527***
Alcoholic_expenditure	-2.6621***	0.0698***	-0.054**	0.9475**
Energy_expenditure	0.8536***	2.348***	0.3556***	1.4271***
Non_energy_goods_expenditure	0.2861	1.3312	-0.957***	0.384***
Housing_services_expenditure	-2.46***	0.0854***	1.9293***	6.885***
Transport/travel_services_expenditure	5.1909***	179.6216***	3.6719***	39.325***
			-	
Communication_expenditure	-1.7636***	0.1714***	1.4186***	0.242***
Recreational/personal_services_expenditure	-0.0264	0.974	0.5861***	0.5565***
			-	
Miscellaneous_services_expenditure	-0.2884***	0.7495***	0.9545***	0.385***

Services Sector Results		
with sales	full sample	
	coef	H.R.
SE	0.0614***	1.0633***
SW	-0.025***	0.9754***
East_Anglia	-0.0213***	0.9789***
East_Midlands	-0.0128**	0.9873**
West_Midlands	0.0022	1.0022
Yorks_Humber	0.0045	1.0045
NW	0.035***	1.0356***
North	-0.0529***	0.9485***
Wales	-0.0552***	0.9463***
Scotland	-0.0114**	0.9886**
NI	-0.0295***	0.9709***
FEB	-0.0392***	0.9616***
MAR	0.0412***	1.042***
APR	-0.0123	0.9878
MAY	0.0142	1.0143
JUN	0.0204*	1.0206*
JUL	0.0094	1.0095
AUG	-0.0204*	0.9798*

SEP	-0.0093	0.9907
OCT	0.0346***	1.0352***
NOV	0.1089***	1.1151***
DEC	0.0129	1.013
wage	1.6007***	4.9564***
Transport/Travel	-0.1524***	0.8586***
Recreational/Personal	-0.1069***	0.8986***
Miscellaneous	0.0949***	1.0996***
independent	0.1471***	1.1584***
tax	-0.7924***	0.4528***
NX	-0.0604***	0.9413***
nine_ending	-0.0257***	0.9746***
zero_ending	-0.0436***	0.9573***
sales	0.5441***	1.7231***
market_share	0.0063***	1.0063***
increase_increase	-0.3894***	0.6775***
increase_decrease	-0.1433***	0.8665***
decrease_decrease	0.0261***	1.0265***
oil	0.0144	1.0145
oil_1	0.0013***	1.0013***
oil_2	0.0026***	1.0026***
oil_3	0.0004*	1.0004*
oil_4	0.0011***	1.0011***
oil_5	0.0005*	1.0005*
oil_6	-0.0002	0.9998
oil_7	-0.0003	0.9997
oil_8	-0.0004	0.9996
oil_9	-0.0016***	0.9984***
oil_10	-0.0004	0.9996
oil_11	-0.0032***	0.9968***
oil_12	-0.0016***	0.9984***
inflation_1	-2.4996***	0.0821***
inflation_2	-0.7174	0.488
inflation_3	5.812***	334.3003***
inflation_4	4.7424***	114.7121***
inflation_5	2.036**	7.6601**
inflation_6	-0.3211	0.7254
inflation_7	-2.7092***	0.0666***
inflation_8	2.2828**	9.8042**
inflation_9	-1.6806*	0.1863*
inflation_10	-0.9522	0.3859
inflation_11	-3.7204***	0.0242***
inflation_12	0.764	2.1467

R	-0.1375***	0.8715***
R_1	-0.0007**	0.9993**
R_2	-0.0001	0.9999
R_3	-0.0019***	0.9981***
R_4	-0.0023***	0.9977***
R_5	-0.0027***	0.9973***
R_6	-0.0013***	0.9987***
R_7	0.0003	1.0003
R_8	0.0007**	1.0007**
R_9	0.0001	1.0001
R_10	0.0008**	1.0008**
R_11	0.0016***	1.0016***
R_12	0.0006*	1.0006*
Food/Non_alcoholic_inflation_1	1.4034***	4.069***
Food/Non_alcoholic_inflation_2	3.0648***	21.4309***
Food/Non_alcoholic_inflation_3	-1.2765***	0.279***
Food/Non_alcoholic_inflation_4	2.6363***	13.962***
Food/Non_alcoholic_inflation_5	-0.8601***	0.4231***
Food/Non_alcoholic_inflation_6	0.4912	1.6343
Food/Non_alcoholic_inflation_7	-2.2151***	0.1091***
Food/Non_alcoholic_inflation_8	-0.9869***	0.3727***
Food/Non_alcoholic_inflation_9	-2.303***	0.1***
Food/Non_alcoholic_inflation_10	-1.6099***	0.1999***
Food/Non_alcoholic_inflation_11	-0.489*	0.6133*
Food/Non_alcoholic_inflation_12	0.9401***	2.5603***
Alcoholic_inflation_1	-1.4406***	0.2368***
Alcoholic_inflation_2	-2.4991***	0.0822***
Alcoholic_inflation_3	-1.3087***	0.2702***
Alcoholic_inflation_4	-1.2929***	0.2745***
Alcoholic_inflation_5	-1.2597***	0.2837***
Alcoholic_inflation_6	-0.7589***	0.4682***
Alcoholic_inflation_7	-1.0554***	0.348***
Alcoholic_inflation_8	2.5015***	12.2007***
Alcoholic_inflation_9	-0.0709	0.9315
Alcoholic_inflation_10	1.213***	3.3636***
Alcoholic_inflation_11	-0.0855	0.918
Alcoholic_inflation_12	-0.2733	0.7609
Energy_inflation_1	0.5991***	1.8205***
Energy_inflation_2	-0.6456***	0.5243***
Energy_inflation_3	-0.4339***	0.648***
Energy_inflation_4	-0.1963*	0.8218*
Energy_inflation_5	0.0234	1.0237
Energy_inflation_6	0.3561***	1.4277***

Energy_inflation_7	0.848***	2.335***
Energy_inflation_8	-0.1713	0.8425
Energy_inflation_9	0.0433	1.0442
Energy_inflation_10	0.5065***	1.6595***
Energy_inflation_11	1.0382***	2.8243***
Energy_inflation_12	0.2853**	1.3302**
Non_energy_goods_inflation_1	0.9079***	2.4791***
Non_energy_goods_inflation_2	-0.6505**	0.5218**
Non_energy_goods_inflation_3	0.0123	1.0124
Non_energy_goods_inflation_4	0.1776	1.1943
Non_energy_goods_inflation_5	0.7029***	2.0197***
Non_energy_goods_inflation_6	0.0687	1.0711
Non_energy_goods_inflation_7	-0.8197***	0.4406***
Non_energy_goods_inflation_8	0.1585	1.1718
Non_energy_goods_inflation_9	0.1527	1.165
Non_energy_goods_inflation_10	0.0566	1.0582
Non_energy_goods_inflation_11	0.7076**	2.0291**
Non_energy_goods_inflation_12	0.6567**	1.9283**
Housing_services_inflation_1	-1.336**	0.2629**
Housing_services_inflation_2	-2.1141***	0.1207***
Housing_services_inflation_3	-1.584***	0.2052***
Housing_services_inflation_4	-0.2786	0.7569
Housing_services_inflation_5	1.0654	2.902
Housing_services_inflation_6	0.4349	1.5448
Housing_services_inflation_7	-4.2392***	0.0144***
Housing_services_inflation_8	-5.3839***	0.0046***
Housing_services_inflation_9	1.1379*	3.1203*
Housing_services_inflation_10	3.4802***	32.466***
Housing_services_inflation_11	5.987***	398.2094***
Housing_services_inflation_12	-2.035***	0.1307***
Transport/travel_services_inflation_1	-1.3064***	0.2708***
Transport/travel_services_inflation_2	0.5093**	1.6642**
Transport/travel_services_inflation_3	2.0928***	8.1074***
Transport/travel_services_inflation_4	0.6456***	1.9071***
Transport/travel_services_inflation_5	2.1167***	8.3037***
Transport/travel_services_inflation_6	0.8515***	2.3432***
Transport/travel_services_inflation_7	0.8098***	2.2474***
Transport/travel_services_inflation_8	1.4673***	4.3377***
Transport/travel_services_inflation_9	0.912***	2.4892***
Transport/travel_services_inflation_10	0.8639***	2.3725***
Transport/travel_services_inflation_11	-0.2178	0.8043
Transport/travel_services_inflation_12	0.614***	1.8478***
Communication_inflation_1	1.3323***	3.7899***

Communication_inflation_2	-0.611**	0.5428**
Communication_inflation_3	0.5648**	1.7592**
Communication_inflation_4	1.6435***	5.1734***
Communication_inflation_5	2.4321***	11.3829***
Communication_inflation_6	2.487***	12.0247***
Communication_inflation_7	2.0358***	7.6581***
Communication_inflation_8	-1.0259***	0.3585***
Communication_inflation_9	-0.0203	0.9799
Communication_inflation_10	0.7966***	2.218***
Communication_inflation_11	1.3349***	3.7995***
Communication_inflation_12	-1.2304***	0.2922***
Recreational/personal_services_inflation_1	7.2275***	1376.7638***
Recreational/personal_services_inflation_2	11.6358***	113080***
Recreational/personal_services_inflation_3	9.0406***	8438.5178***
Recreational/personal_services_inflation_4	4.7624***	117.0239***
Recreational/personal_services_inflation_5	7.1497***	1273.773***
Recreational/personal_services_inflation_6	-0.2846	0.7523
Recreational/personal_services_inflation_7	-1.859*	0.1558*
Recreational/personal_services_inflation_8	4.0213***	55.774***
Recreational/personal_services_inflation_9	3.0682***	21.5024***
Recreational/personal_services_inflation_10	6.0909***	441.8398***
Recreational/personal_services_inflation_11	5.0596***	157.5273***
Recreational/personal_services_inflation_12	2.9604***	19.3062***
Miscellaneous_services_inflation_1	-2.051***	0.1286***
Miscellaneous_services_inflation_2	0.8755	2.4
Miscellaneous_services_inflation_3	-2.3333***	0.097***
Miscellaneous_services_inflation_4	0.2324	1.2616
Miscellaneous_services_inflation_5	-2.0697***	0.1262***
Miscellaneous_services_inflation_6	-4.9654***	0.007***
Miscellaneous_services_inflation_7	-5.8559***	0.0029***
Miscellaneous_services_inflation_8	-6.3849***	0.0017***
Miscellaneous_services_inflation_9	-8.5047***	0.0002***
Miscellaneous_services_inflation_10	-6.9834***	0.0009***
Miscellaneous_services_inflation_11	-7.7403***	0.0004***
Miscellaneous_services_inflation_12	-7.653***	0.0005***
Food/Non_alcoholic_expenditure	1.2708***	3.5637***
Alcoholic_expenditure	0.0315	1.032
Energy_expenditure	0.1276***	1.1361***
Non_energy_goods_expenditure	-0.3148	0.73
Housing_services_expenditure	0.6453***	1.9065***
Transport/travel_services_expenditure	3.3106***	27.4021***
Communication_expenditure	-0.7766***	0.46***
Recreational/personal_services_expenditure	0.0528	1.0543

Miscellaneous_services_expenditure	-1.1531***	0.3156***
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Services Sector Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0904***	1.0946***	0.0341***	1.0347***
SW	-0.0386***	0.9621***	-0.0099	0.9902
East_Anglia	-0.0223**	0.978**	0.0044	1.0044
East_Midlands	-0.0208**	0.9794**	-0.0096	0.9904
West_Midlands	-0.0101	0.9899	0.0137*	1.0138*
Yorks_Humber	-0.0083	0.9918	0.0125*	1.0125*
NW	0.0089	1.0089	0.0455***	1.0465***
North	-0.0318***	0.9687***	0.0611***	0.9407***
Wales	-0.0883***	0.9155***	0.0354***	0.9652***
Scotland	-0.0247***	0.9756***	0.0137*	1.0138*
NI	-0.0495***	0.9518***	-0.0066	0.9934
FEB	-0.0816***	0.9216***	0.0088	1.0088
MAR	0.066***	1.0683***	-0.024	0.9763
APR	-0.0113	0.9887	-0.031**	0.9695**
MAY	0.0343*	1.0349*	0.0013	1.0013
JUN	0.0123	1.0124	0.0322*	1.0327*
JUL	-0.0046	0.9954	-0.0276	0.9728
AUG	0.0226	1.0229	-0.0209	0.9793
SEP	0.0084	1.0084	0.0012	1.0012
OCT	0.0231	1.0234	0.0379**	1.0386**
NOV	0.0629***	1.0649***	0.0787***	1.0818***
DEC	-0.0475**	0.9537**	0.0181	1.0183
wage	-2.7317***	0.0651***	2.1594***	8.6657***
Transport/Travel	-0.0989***	0.9059***	0.1343***	0.8743***
Recreational/Personal	-0.1291***	0.8789***	0.0895***	0.9144***
Miscellaneous independent	0.0602***	1.0621***	0.1145***	1.1213***
tax	0.0254***	1.0257***	0.2096***	1.2332***
NX	-0.5364***	0.5848***	0.6346***	0.5302***
nine_ending	-0.0005	0.9995	0.2736***	0.7607***
zero_ending	0.0013	1.0013	-0.027***	0.9733***
zero_ending	0.0291***	1.0295***	0.0705***	0.932***

sales	0.5512***	1.7353***	0.5111***	1.6671***
market_share	0.0158***	1.0159***	0.0001	1.0001
increase_increase	-0.3944***	0.6741***	-0.383***	0.6818***
			-	
increase_decrease	-0.1135***	0.8927***	0.1479***	0.8625***
decrease_decrease	0.0534***	1.0548***	0.0244***	1.0247***
oil	-0.0103	0.9897	-0.0266	0.9738
oil_1	-0.0011**	0.9989**	0.0023***	1.0023***
oil_2	-0.0016***	0.9984***	0.0024***	1.0024***
oil_3	-0.0025***	0.9975***	0.0016***	1.0016***
oil_4	-0.0015***	0.9985***	0.0006	1.0006
oil_5	-0.0012***	0.9988***	0.0003	1.0003
oil_6	-0.0003	0.9997	0.0001	1.0001
oil_7	-0.0003	0.9997	0.0015***	1.0015***
oil_8	-0.0014***	0.9986***	-0.0002	0.9998
			-	
oil_9	-0.0019***	0.9981***	0.0013***	0.9987***
oil_10	-0.0022***	0.9978***	0.001**	1.001**
oil_11	-0.0042***	0.9958***	-0.0011**	0.9989**
			-	
oil_12	-0.0016***	0.9984***	0.0013***	0.9987***
			-	
inflation_1	1.0685	2.911	3.7541***	0.0234***
inflation_2	-0.7877	0.4549	-2.3736*	0.0931*
inflation_3	6.3064***	548.0761***	0.2707	1.3109
		3652.1219*		
inflation_4	8.2031***	**	-1.2316	0.2918
inflation_5	5.7133***	302.8709***	3.174**	23.9034**
		3484.6894*		
inflation_6	8.1561***	**	-0.577	0.5616
			-	
inflation_7	11.5742***	106320***	3.9957***	0.0184***
		1633.0057*		
inflation_8	7.3982***	**	0.507	1.6603
inflation_9	6.1563***	471.6729***	-3.0274**	0.0484**
inflation_10	3.9666**	52.8045**	-0.6798	0.5067
inflation_11	1.5732	4.8222	-2.2186*	0.1088*
inflation_12	2.244	9.4311	-1.8813	0.1524
			-	
R	0.3598***	1.433***	0.2608***	0.7704***
			-	
R_1	0.0067***	1.0067***	0.0023***	0.9977***
			-	
R_2	0.0115***	1.0115***	0.0026***	0.9974***
			-	
R_3	-0.0038***	0.9962***	0.0011***	0.9989***

			-	
R_4	0.0006	1.0006	0.0035***	0.9965***
R_5	-0.0089***	0.9912***	-0.0009**	0.9991**
			-	
R_6	0.0081***	1.0081***	0.0021***	0.9979***
R_7	0.0095***	1.0096***	0	1
R_8	0.0084***	1.0084***	0.0009**	1.0009**
R_9	0.0077***	1.0077***	0	1
R_10	0.0116***	1.0117***	0.0006	1.0006
R_11	0.0177***	1.0179***	0.0015***	1.0015***
R_12	0.006***	1.006***	0.0008**	1.0008**
Food/Non_alcoholic_inflation_1	0.3867	1.4721	3.539***	34.4322***
Food/Non_alcoholic_inflation_2	4.2363***	69.1529***	2.0328***	7.6353***
Food/Non_alcoholic_inflation_3	-0.2804	0.7555	0.7349	2.0852
Food/Non_alcoholic_inflation_4	-1.0313*	0.3565*	3.1005***	22.2099***
			-	
Food/Non_alcoholic_inflation_5	2.8967***	18.1151***	1.9136***	0.1476***
			-	
Food/Non_alcoholic_inflation_6	2.1106***	8.2532***	3.8473***	0.0213***
Food/Non_alcoholic_inflation_7	1.771***	5.8767***	-1.821***	0.1619***
Food/Non_alcoholic_inflation_8	-1.4453**	0.2357**	-1.1033**	0.3318**
			-	
Food/Non_alcoholic_inflation_9	-4.8983***	0.0075***	1.8834***	0.1521***
			-	
Food/Non_alcoholic_inflation_10	-2.1681***	0.1144***	1.9516***	0.142***
Food/Non_alcoholic_inflation_11	-1.5759***	0.2068***	-1.478***	0.2281***
Food/Non_alcoholic_inflation_12	0.0114	1.0115	0.3719	1.4504
			-	
Alcoholic_inflation_1	6.1179***	453.9087***	4.1832***	0.0152***
			-	
Alcoholic_inflation_2	2.6747***	14.5085***	3.0498***	0.0474***
			-	
Alcoholic_inflation_3	0.8183	2.2667	1.9234***	0.1461***
Alcoholic_inflation_4	1.6658**	5.29**	-1.464***	0.2313***
Alcoholic_inflation_5	3.8196***	45.5868***	-0.6804*	0.5064*
Alcoholic_inflation_6	6.3537***	574.597***	-0.889**	0.4111**
Alcoholic_inflation_7	5.648***	283.7261***	-0.3105	0.7331
Alcoholic_inflation_8	5.1333***	169.5749***	0.1	1.1051
Alcoholic_inflation_9	1.0709	2.9179	0.3902	1.4772
Alcoholic_inflation_10	4.3337***	76.2233***	0.5111	1.6672
Alcoholic_inflation_11	2.395***	10.9684***	-0.2311	0.7937
Alcoholic_inflation_12	0.2951	1.3433	-0.7751**	0.4607**
Energy_inflation_1	1.4674***	4.338***	0.4533**	1.5735**
Energy_inflation_2	-0.1695	0.8441	-0.4685**	0.6259**
Energy_inflation_3	-1.0388***	0.3539***	-0.003	0.997

Energy_inflation_4	-0.1223	0.8849	0.0701	1.0726
Energy_inflation_5	0.7109***	2.0357***	0.3978**	1.4885**
Energy_inflation_6	0.244	1.2764	0.1251	1.1332
Energy_inflation_7	0.7418***	2.0998***	0.3506*	1.4199*
Energy_inflation_8	0.5138**	1.6717**	-0.4296**	0.6508**
Energy_inflation_9	-1.1937***	0.3031***	-0.0963	0.9082
			-	
Energy_inflation_10	2.1426***	8.5218***	0.6972***	0.498***
Energy_inflation_11	3.6197***	37.3258***	-0.269	0.7642
Energy_inflation_12	2.2542***	9.5275***	0.2453	1.278
Non_energy_goods_inflation_1	1.3214***	3.7485***	1.1713***	3.2262***
Non_energy_goods_inflation_2	0.5623	1.7547	0.2139	1.2385
Non_energy_goods_inflation_3	1.0742**	2.9276**	0.0553	1.0569
Non_energy_goods_inflation_4	0.9405**	2.5612**	0.0983	1.1033
Non_energy_goods_inflation_5	-0.8675*	0.42*	-0.2498	0.779
			-	
Non_energy_goods_inflation_6	0.3998	1.4915	1.5953***	0.2029***
			-	
Non_energy_goods_inflation_7	0.4579	1.5808	2.8403***	0.0584***
Non_energy_goods_inflation_8	0.4782	1.6132	-0.5645	0.5686
Non_energy_goods_inflation_9	0.9644**	2.6232**	0.4362	1.5468
Non_energy_goods_inflation_10	0.6277	1.8733	-1.0644**	0.3449**
Non_energy_goods_inflation_11	0.4333	1.5423	-1.581***	0.2058***
Non_energy_goods_inflation_12	0.5517	1.7361	-1.294***	0.2742***
				10356.0782*
Housing_services_inflation_1	-9.583***	0.0001***	9.2453***	**
	-			
Housing_services_inflation_2	16.1621***	0***	-3.9**	0.0202**
Housing_services_inflation_3	-6.8051***	0.0011***	3.8666**	47.7806**
Housing_services_inflation_4	-2.1311*	0.1187*	0.5995	1.8212
				21550.0131*
Housing_services_inflation_5	-6.292***	0.0019***	9.9781***	**
Housing_services_inflation_6	-4.2111***	0.0148***	-1.9728	0.1391
			-	
Housing_services_inflation_7	-8.2417***	0.0003***	4.9009***	0.0074***
Housing_services_inflation_8	-0.9931	0.3704	-2.5733	0.0763
Housing_services_inflation_9	-0.1472	0.8631	7.6916***	2189.8743***
Housing_services_inflation_10	-0.6035	0.5469	8.2626***	3875.977***
			20.4953**	796190000**
Housing_services_inflation_11	-4.2303***	0.0145***	*	*
Housing_services_inflation_12	-5.3668***	0.0047***	5.9612***	388.0688***
			-	
Transport/travel_services_inflation_1	-3.0394***	0.0479***	1.3045***	0.2713***
Transport/travel_services_inflation_2	-2.1337***	0.1184***	-0.0182	0.9819
Transport/travel_services_inflation_3	1.9779***	7.2278***	1.2672***	3.5508***

Transport/travel_services_inflation_4	2.765***	15.8792***	1.068***	2.9097***
Transport/travel_services_inflation_5	0.5349	1.7074	1.599***	4.9482***
Transport/travel_services_inflation_6	-1.0957**	0.3343**	0.3721	1.4508
Transport/travel_services_inflation_7	1.6393***	5.1518***	0.093	1.0975
Transport/travel_services_inflation_8	0.0318	1.0323	1.942***	6.9726***
Transport/travel_services_inflation_9	0.1057	1.1115	0.5767	1.7802
Transport/travel_services_inflation_10	1.0479**	2.8516**	0.3086	1.3615
Transport/travel_services_inflation_11	-1.0855**	0.3377**	1.0544***	2.8704***
Transport/travel_services_inflation_12	2.638***	13.9848***	0.0779	1.081
Communication_inflation_1	-1.9094***	0.1482***	0.7239	2.0624
Communication_inflation_2	-0.8841	0.4131	-0.3752	0.6872
Communication_inflation_3	-1.8046***	0.1645***	-0.3347	0.7156
Communication_inflation_4	-0.7389	0.4776	2.3321***	10.2996***
Communication_inflation_5	-1.3304**	0.2644**	3.1115***	22.454***
Communication_inflation_6	-2.3609***	0.0943***	3.4937***	32.9065***
Communication_inflation_7	2.4915***	12.079***	4.1882***	65.9072***
Communication_inflation_8	-2.3787***	0.0927***	2.1327***	0.1185***
Communication_inflation_9	-1.1006**	0.3327**	-1.366***	0.2551***
Communication_inflation_10	-0.8589	0.4236	-0.1965	0.8216
Communication_inflation_11	0.3874	1.4731	1.3688***	3.9307***
Communication_inflation_12	-0.3322	0.7173	0.5052	1.6573
Recreational/personal_services_inflation_1	-4.6556**	0.0095**	15.1618**	3843000***
Recreational/personal_services_inflation_2	3.3285*	27.8971*	13.5029**	731500***
Recreational/personal_services_inflation_3	-5.2968***	0.005***	11.7534**	127190***
Recreational/personal_services_inflation_4	-5.764***	0.0031***	8.3824***	4369.3972***
Recreational/personal_services_inflation_5	3.0541	21.2029	12.5437**	280320***
Recreational/personal_services_inflation_6	-2.2484	0.1056	7.866***	2607.1351***
Recreational/personal_services_inflation_7	-3.977**	0.0187**	2.5459	12.7549
Recreational/personal_services_inflation_8	2.4547	11.6432	-1.2395	0.2895
Recreational/personal_services_inflation_9	-0.4098	0.6638	2.0923	8.1035
Recreational/personal_services_inflation_10	1.4252	4.1589	7.2951***	1473.0878***
Recreational/personal_services_inflation_11	0.6793	1.9724	1.1612	3.1937
Recreational/personal_services_inflation_12	-9.9403***	0***	0.5854	1.7956

Miscellaneous_services_inflation_1	-4.0081***	0.0182***	0.3624	1.4367
Miscellaneous_services_inflation_2	-0.1383	0.8708	-2.2917**	0.1011**
				12880.3292*
Miscellaneous_services_inflation_3	-1.913*	0.1476*	9.4635***	**
Miscellaneous_services_inflation_4	-2.0844*	0.1244*	2.8002**	16.4471**
Miscellaneous_services_inflation_5	-1.6229	0.1973	-1.8859	0.1517
Miscellaneous_services_inflation_6	-0.1848	0.8313	1.045	2.8434
			-	
Miscellaneous_services_inflation_7	-5.9967***	0.0025***	3.7057***	0.0246***
			-	
Miscellaneous_services_inflation_8	-4.319***	0.0133***	4.3274***	0.0132***
			-	
Miscellaneous_services_inflation_9	-1.7936*	0.1664*	8.7811***	0.0002***
Miscellaneous_services_inflation_10	-6.9423***	0.001***	-0.7177	0.4879
			-	
Miscellaneous_services_inflation_11	15.7209***	0***	-0.6725	0.5104
			-	
Miscellaneous_services_inflation_12	-7.4065***	0.0006***	3.4989***	0.0302***
Food/Non_alcoholic_expenditure	-4.0419***	0.0176***	0.6781***	1.9702***
Alcoholic_expenditure	-3.3235***	0.036***	-0.0812*	0.922*
Energy_expenditure	1.5086***	4.5202***	0.4783***	1.6134***
Non_energy_goods_expenditure	0.2336	1.2632	-0.4762	0.6211
Housing_services_expenditure	-3.7038***	0.0246***	1.5724***	4.8183***
		3931.7982*		
Transport/travel_services_expenditure	8.2769***	**	4.0074***	55.0023***
			-	
Communication_expenditure	-2.9207***	0.0539***	1.8272***	0.1609***
Recreational/personal_services_expenditure	-0.1307	0.8775	-0.4732**	0.623**
			-	
Miscellaneous_services_expenditure	-0.8032***	0.4479***	1.1388***	0.3202***

Services Sector Results			
	without sales	full sample	
		coef	H.R.
	SE	0.0634***	1.0655***
	SW	-0.0422***	0.9587***
	East_Anglia	-0.0327***	0.9678***
	East_Midlands	-0.034***	0.9666***
	West_Midlands	-0.0064	0.9936
	Yorks_Humber	-0.0041	0.9959
	NW	0.0356***	1.0363***
	North	-0.0772***	0.9257***
	Wales	-0.0774***	0.9255***

Scotland	-0.0285***	0.9719***
NI	-0.061***	0.9408***
FEB	-0.0192	0.981
MAR	0.0518***	1.0531***
APR	-0.0001	0.9999
MAY	0.0058	1.0058
JUN	0.0111	1.0111
JUL	0.0022	1.0022
AUG	-0.0299**	0.9706**
SEP	-0.0368***	0.9639***
OCT	0.0465***	1.0476***
NOV	0.0989***	1.104***
DEC	0.0291**	1.0295**
wage	1.5278***	4.608***
Transport/Travel	-0.0466***	0.9545***
Recreational/Personal	-0.0004	0.9996
Miscellaneous	0.005	1.005
independent	0.0924***	1.0968***
tax	-0.7501***	0.4723***
NX	-0.0637***	0.9383***
nine_ending	-0.05***	0.9512***
zero_ending	-0.0571***	0.9445***
market_share	0.0104***	1.0104***
increase_increase	-0.4085***	0.6647***
increase_decrease	-0.164***	0.8488***
decrease_decrease	0.0487***	1.0499***
oil	0.0273	1.0277
oil_1	0.0013***	1.0013***
oil_2	0.0026***	1.0026***
oil_3	0.0006**	1.0006**
oil_4	0.0016***	1.0016***
oil_5	0.0007***	1.0007***
oil_6	0.0001	1.0001
oil_7	-0.0002	0.9998
oil_8	-0.0001	0.9999
oil_9	-0.002***	0.998***
oil_10	-0.0001	0.9999
oil_11	-0.0031***	0.9969***
oil_12	-0.0017***	0.9983***
inflation_1	-3.0185***	0.0489***
inflation_2	-0.499	0.6071
inflation_3	7.0685***	1174.4432***
inflation_4	4.9792***	145.3643***

inflation_5	2.6738***	14.4943***
inflation_6	1.5164	4.5559
inflation_7	-2.2386**	0.1066**
inflation_8	2.3725**	10.7239**
inflation_9	-2.1533**	0.1161**
inflation_10	-1.4309	0.2391
inflation_11	-4.2389***	0.0144***
inflation_12	1.6707*	5.3157*
R	-0.067**	0.9352**
R_1	0.0001	1.0001
R_2	0.0004	1.0004
R_3	-0.0017***	0.9983***
R_4	-0.002***	0.998***
R_5	-0.0022***	0.9978***
R_6	-0.0007*	0.9993*
R_7	0.001***	1.001***
R_8	0.0003	1.0003
R_9	0.001***	1.001***
R_10	0.0008**	1.0008**
R_11	0.002***	1.002***
R_12	-0.0005*	0.9995*
Food/Non_alcoholic_inflation_1	1.6282***	5.0947***
Food/Non_alcoholic_inflation_2	3.605***	36.7808***
Food/Non_alcoholic_inflation_3	-1.3712***	0.2538***
Food/Non_alcoholic_inflation_4	2.1597***	8.6681***
Food/Non_alcoholic_inflation_5	-0.6882**	0.5025**
Food/Non_alcoholic_inflation_6	0.0885	1.0925
Food/Non_alcoholic_inflation_7	-2.0969***	0.1228***
Food/Non_alcoholic_inflation_8	-1.0826***	0.3387***
Food/Non_alcoholic_inflation_9	-2.2399***	0.1065***
Food/Non_alcoholic_inflation_10	-1.3098***	0.2699***
Food/Non_alcoholic_inflation_11	0.0236	1.0239
Food/Non_alcoholic_inflation_12	1.3927***	4.0257***
Alcoholic_inflation_1	-1.6229***	0.1973***
Alcoholic_inflation_2	-1.8858***	0.1517***
Alcoholic_inflation_3	-1.2401***	0.2894***
Alcoholic_inflation_4	-0.908***	0.4033***
Alcoholic_inflation_5	-1.4257***	0.2403***
Alcoholic_inflation_6	-0.6278**	0.5338**
Alcoholic_inflation_7	-0.79***	0.4539***
Alcoholic_inflation_8	2.8667***	17.5792***
Alcoholic_inflation_9	0.0995	1.1047
Alcoholic_inflation_10	1.4214***	4.1431***

Alcoholic_inflation_11	-0.4205	0.6567
Alcoholic_inflation_12	0.0137	1.0138
Energy_inflation_1	0.7645***	2.1479***
Energy_inflation_2	-0.6727***	0.5103***
Energy_inflation_3	-0.4246***	0.654***
Energy_inflation_4	-0.1725	0.8416
Energy_inflation_5	0.0959	1.1007
Energy_inflation_6	0.1812	1.1987
Energy_inflation_7	0.712***	2.038***
Energy_inflation_8	-0.3194**	0.7266**
Energy_inflation_9	-0.0016	0.9984
Energy_inflation_10	0.4728***	1.6045***
Energy_inflation_11	1.115***	3.0496***
Energy_inflation_12	0.4558***	1.5774***
Non_energy_goods_inflation_1	1.055***	2.872***
Non_energy_goods_inflation_2	-0.3422	0.7102
Non_energy_goods_inflation_3	0.2385	1.2693
Non_energy_goods_inflation_4	0.5513*	1.7355*
Non_energy_goods_inflation_5	0.4895*	1.6316*
Non_energy_goods_inflation_6	0.1859	1.2043
Non_energy_goods_inflation_7	-0.4137	0.6612
Non_energy_goods_inflation_8	0.3289	1.3895
Non_energy_goods_inflation_9	0.2675	1.3067
Non_energy_goods_inflation_10	0.4076	1.5032
Non_energy_goods_inflation_11	0.7115**	2.037**
Non_energy_goods_inflation_12	0.7471***	2.1109***
Housing_services_inflation_1	-1.1417	0.3193
Housing_services_inflation_2	-3.736***	0.0238***
Housing_services_inflation_3	-2.4908***	0.0828***
Housing_services_inflation_4	-1.2259*	0.2935*
Housing_services_inflation_5	2.1558***	8.6352***
Housing_services_inflation_6	0.0499	1.0512
Housing_services_inflation_7	-3.2052***	0.0405***
Housing_services_inflation_8	-3.5799***	0.0279***
Housing_services_inflation_9	2.2156***	9.1672***
Housing_services_inflation_10	3.7895***	44.2326***
Housing_services_inflation_11	7.6756***	2155.0622***
Housing_services_inflation_12	-1.4183**	0.2421**
Transport/travel_services_inflation_1	-0.9047***	0.4047***
Transport/travel_services_inflation_2	0.478*	1.6129*
Transport/travel_services_inflation_3	2.4079***	11.1111***
Transport/travel_services_inflation_4	0.8261***	2.2843***
Transport/travel_services_inflation_5	2.0845***	8.0403***

Transport/travel_services_inflation_6	1.1602***	3.1906***
Transport/travel_services_inflation_7	1.0195***	2.7718***
Transport/travel_services_inflation_8	1.5287***	4.6122***
Transport/travel_services_inflation_9	1.6892***	5.415***
Transport/travel_services_inflation_10	1.0603***	2.8873***
Transport/travel_services_inflation_11	-0.57**	0.5655**
Transport/travel_services_inflation_12	1.2163***	3.3747***
Communication_inflation_1	0.9323***	2.5403***
Communication_inflation_2	-0.8602***	0.4231***
Communication_inflation_3	0.4727*	1.6044*
Communication_inflation_4	1.4165***	4.1228***
Communication_inflation_5	2.4294***	11.3525***
Communication_inflation_6	2.3975***	10.9961***
Communication_inflation_7	1.312***	3.7137***
Communication_inflation_8	-1.5599***	0.2102***
Communication_inflation_9	-0.1847	0.8313
Communication_inflation_10	0.2641	1.3023
Communication_inflation_11	0.8623***	2.3686***
Communication_inflation_12	-1.4931***	0.2247***
Recreational/personal_services_inflation_1	7.1252***	1242.9582***
Recreational/personal_services_inflation_2	10.2829***	29229.8128***
Recreational/personal_services_inflation_3	10.0017***	22064.3002***
Recreational/personal_services_inflation_4	4.3974***	81.2396***
Recreational/personal_services_inflation_5	7.6344***	2068.2108***
Recreational/personal_services_inflation_6	-1.4457	0.2356
Recreational/personal_services_inflation_7	-2.1485**	0.1167**
Recreational/personal_services_inflation_8	4.3345***	76.2889***
Recreational/personal_services_inflation_9	4.9889***	146.7739***
Recreational/personal_services_inflation_10	4.8452***	127.1233***
Recreational/personal_services_inflation_11	6.4169***	612.1277***
Recreational/personal_services_inflation_12	1.9552*	7.0651*
Miscellaneous_services_inflation_1	-2.1494***	0.1166***
Miscellaneous_services_inflation_2	0.8577	2.3578
Miscellaneous_services_inflation_3	-4.0606***	0.0172***
Miscellaneous_services_inflation_4	0.5717	1.7713
Miscellaneous_services_inflation_5	-0.666	0.5138
Miscellaneous_services_inflation_6	-4.7898***	0.0083***
Miscellaneous_services_inflation_7	-5.2309***	0.0053***
Miscellaneous_services_inflation_8	-5.4509***	0.0043***
Miscellaneous_services_inflation_9	-8.6124***	0.0002***
Miscellaneous_services_inflation_10	-7.7088***	0.0004***
Miscellaneous_services_inflation_11	-6.6282***	0.0013***
Miscellaneous_services_inflation_12	-6.9548***	0.001***

Food/Non_alcoholic_expenditure	1.3505***	3.8595***
Alcoholic_expenditure	-0.0656**	0.9365**
Energy_expenditure	0.1886***	1.2075***
Non_energy_goods_expenditure	0.5075**	1.6611**
Housing_services_expenditure	0.6394***	1.8954***
Transport/travel_services_expenditure	3.2421***	25.5867***
Communication_expenditure	-0.6384***	0.5281***
Recreational/personal_services_expenditure	-0.1091	0.8966
Miscellaneous_services_expenditure	-1.2133***	0.2972***

Services Sector Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		coef	H.R.	coef	H.R.
SE		0.0939***	1.0985***	0.0313***	1.0318***
SW		-0.0541***	0.9473***	-0.0314***	0.9691***
East_Anglia		-0.0175*	0.9826*	-0.0119	0.9881
East_Midlands		-0.0204**	0.9798**	-0.0521***	0.9492***
West_Midlands		-0.0173*	0.9828*	0.0042	1.0042
Yorks_Humber		-0.0185**	0.9816**	0.0068	1.0069
NW		0.0108	1.0109	0.0453***	1.0463***
North		-0.0373***	0.9634***	-0.0979***	0.9067***
Wales		-0.1133***	0.8929***	-0.059***	0.9427***
Scotland		-0.0352***	0.9655***	-0.0039	0.9961
NI		-0.0849***	0.9186***	-0.0345***	0.9661***
FEB		-0.0852***	0.9184***	0.0281	1.0285
MAR		0.0748***	1.0777***	-0.0214	0.9788
APR		-0.0119	0.9881	-0.0315*	0.969*
MAY		0.037*	1.0377*	-0.0212	0.979
JUN		0.0069	1.0069	-0.0075	0.9925
JUL		-0.0072	0.9928	-0.0659***	0.9363***
AUG		0.0317	1.0322	-0.027	0.9734
SEP		0.0035	1.0035	-0.0147	0.9854
OCT		0.0312	1.0317	0.0473**	1.0484**
NOV		0.056**	1.0576**	0.0948***	1.0995***
DEC		-0.0268	0.9735	0.0444**	1.0454**
wage		-3.2449***	0.039***	2.2845***	9.8208***
Transport/Travel		0.0186	1.0188	-0.0532***	0.9482***
Recreational/Personal		-0.002	0.998	-0.0149**	0.9852**
Miscellaneous		0.0324***	1.0329***	-0.0165***	0.9836***
independent		-0.048***	0.9531***	0.1677***	1.1826***
tax		-0.6857***	0.5037***	-0.4839***	0.6164***

NX	0.0017	1.0017	-0.2705***	0.763***
nine_ending	-0.0185**	0.9816**	-0.0446***	0.9563***
zero_ending	0.0083*	1.0083*	-0.0748***	0.9279***
market_share	0.0156***	1.0158***	0.0051***	1.0051***
increase_increase	-0.4284***	0.6516***	-0.403***	0.6683***
increase_decrease	-0.1456***	0.8645***	-0.1648***	0.848***
decrease_decrease	0.0499***	1.0512***	0.0789***	1.0821***
oil	-0.079*	0.924*	-0.0291	0.9713
oil_1	-0.0016***	0.9984***	0.0026***	1.0026***
oil_2	-0.0021***	0.9979***	0.0027***	1.0027***
oil_3	-0.003***	0.997***	0.0013***	1.0013***
oil_4	-0.0018***	0.9982***	0.0014***	1.0014***
oil_5	-0.0015***	0.9985***	0.0014***	1.0014***
oil_6	-0.0007	0.9993	0.0003	1.0003
oil_7	-0.0001	0.9999	0.0022***	1.0022***
oil_8	-0.002***	0.998***	0.0005	1.0005
oil_9	-0.0019***	0.9981***	-0.0015***	0.9985***
oil_10	-0.0018***	0.9982***	0.0006	1.0006
oil_11	-0.0045***	0.9955***	-0.0007	0.9993
oil_12	-0.0021***	0.9979***	-0.0014***	0.9986***
inflation_1	0.7894	2.202	-3.9735***	0.0188***
inflation_2	-0.8803	0.4146	-2.2206	0.1085
inflation_3	6.8659***	958.9686***	2.8997**	18.1694**
inflation_4	10.5132**	36796.6844*	-1.2187	0.2956
inflation_5	5.4495***	232.6312***	3.5665**	35.3909**
inflation_6	9.6724***	15873.0338*	0.0721	1.0748
inflation_7	13.4593**	700340***	-4.8119***	0.0081***
inflation_8	8.2291***	3748.4978**	0.4229	1.5264
inflation_9	6.7601***	862.7282***	-3.38**	0.034**
inflation_10	4.9726***	144.403***	-1.1876	0.305
inflation_11	2.4803	11.9453	-2.7878*	0.0616*
inflation_12	3.1468*	23.2612*	-1.5915	0.2036
R	0.5782***	1.7828***	-0.2559***	0.7742***
R_1	0.0057***	1.0057***	-0.0017***	0.9983***
R_2	0.0118***	1.0118***	-0.0022***	0.9978***
R_3	-0.0041***	0.9959***	-0.0006	0.9994
R_4	0.0017	1.0017	-0.0035***	0.9965***
R_5	-0.008***	0.9921***	-0.0003	0.9997
R_6	0.0084***	1.0084***	-0.0011**	0.9989**
R_7	0.0104***	1.0104***	0.0008	1.0008

R_8	0.0088***	1.0088***	0.0002	1.0002
R_9	0.0085***	1.0085***	0.0009**	1.0009**
R_10	0.0122***	1.0123***	0.0011**	1.0011**
R_11	0.0196***	1.0198***	0.0013***	1.0013***
R_12	0.007***	1.007***	-0.0001	0.9999
Food/Non_alcoholic_inflation_1	0.5526	1.7378	3.2374***	25.4684***
Food/Non_alcoholic_inflation_2	5.2239***	185.6534***	1.8479***	6.3464***
Food/Non_alcoholic_inflation_3	0.1689	1.184	-0.0291	0.9714
Food/Non_alcoholic_inflation_4	-1.3176**	0.2678**	3.111***	22.4435***
Food/Non_alcoholic_inflation_5	3.915***	50.1513***	-1.698***	0.183***
Food/Non_alcoholic_inflation_6	2.0816***	8.0169***	-4.0773***	0.017***
Food/Non_alcoholic_inflation_7	2.572***	13.0917***	-1.9713***	0.1393***
Food/Non_alcoholic_inflation_8	-1.316**	0.2682**	-1.6255***	0.1968***
Food/Non_alcoholic_inflation_9	-4.7977***	0.0082***	-1.7804***	0.1686***
Food/Non_alcoholic_inflation_10	-2.9224***	0.0538***	-0.8116	0.4442
Food/Non_alcoholic_inflation_11	-1.2889**	0.2756**	-1.6793***	0.1865***
Food/Non_alcoholic_inflation_12	-0.2156	0.8061	0.5858	1.7964
		1307.5265**		
Alcoholic_inflation_1	7.1759***	*	-4.5014***	0.0111***
Alcoholic_inflation_2	2.7904***	16.2882***	-2.6212***	0.0727***
Alcoholic_inflation_3	1.3415*	3.8248*	-1.9604***	0.1408***
Alcoholic_inflation_4	2.942***	18.9536***	-1.7531***	0.1732***
Alcoholic_inflation_5	3.2864***	26.7467***	-1.0578**	0.3472**
Alcoholic_inflation_6	6.6727***	790.5082***	-1.5939***	0.2031***
Alcoholic_inflation_7	6.4386***	625.535***	-0.566	0.5678
Alcoholic_inflation_8	6.0972***	444.6014***	0.2883	1.3341
Alcoholic_inflation_9	1.6416**	5.1637**	0.564	1.7576
Alcoholic_inflation_10	4.2165***	67.7958***	0.5657	1.7606
Alcoholic_inflation_11	2.9933***	19.9512***	-0.3902	0.6769
Alcoholic_inflation_12	0.5945	1.8122	-0.5991*	0.5493*
Energy_inflation_1	1.8885***	6.6093***	0.3764*	1.457*
Energy_inflation_2	0.0684	1.0708	-0.6392***	0.5277***
Energy_inflation_3	-0.7017***	0.4957***	0.084	1.0877
Energy_inflation_4	-0.2555	0.7745	0.3176	1.3738
Energy_inflation_5	0.8338***	2.302***	0.5631***	1.7561***
Energy_inflation_6	0.2003	1.2218	0.1007	1.1059
Energy_inflation_7	0.886***	2.4253***	0.2775	1.3198
Energy_inflation_8	0.7396***	2.0952***	-0.7405***	0.4769***
Energy_inflation_9	-1.1773***	0.3081***	-0.3205	0.7258
Energy_inflation_10	2.2142***	9.1545***	-0.8548***	0.4254***
Energy_inflation_11	4.2557***	70.5085***	-0.3383	0.713
Energy_inflation_12	2.5992***	13.4533***	0.489**	1.6307**
Non_energy_goods_inflation_1	1.3785***	3.9688***	1.3953***	4.0362***

Non_energy_goods_inflation_2	0.6391	1.8948	0.7771*	2.1751*
Non_energy_goods_inflation_3	1.2359***	3.4416***	0.5427	1.7207
Non_energy_goods_inflation_4	1.1826**	3.2628**	0.5575	1.7463
Non_energy_goods_inflation_5	-1.1634**	0.3124**	-0.1175	0.8891
Non_energy_goods_inflation_6	0.5016	1.6514	-1.4002***	0.2466***
Non_energy_goods_inflation_7	0.5934	1.8101	-2.5361***	0.0792***
Non_energy_goods_inflation_8	0.497	1.6437	-0.5255	0.5912
Non_energy_goods_inflation_9	0.9513**	2.5892**	0.7747	2.1699
Non_energy_goods_inflation_10	0.8702*	2.3875*	-0.806	0.4466
Non_energy_goods_inflation_11	0.3877	1.4736	-1.1765**	0.3084**
Non_energy_goods_inflation_12	0.8336*	2.3015*	-1.3306***	0.2643***
-	-	-	-	-
Housing_services_inflation_1	10.0055**	0***	7.3543***	1562.8455**
-	*	0***	-	*
Housing_services_inflation_2	17.5536**	0***	10.7223**	0***
Housing_services_inflation_3	-7.1629***	0.0008***	-3.5179**	0.0297**
Housing_services_inflation_4	-2.7659**	0.0629**	-3.6489*	0.026*
Housing_services_inflation_5	-5.06***	0.0063***	8.3485***	4223.9766**
Housing_services_inflation_6	-5.6128***	0.0037***	-0.042	*
Housing_services_inflation_7	-9.9963***	0***	0.2747	0.9589
Housing_services_inflation_8	-2.3742*	0.0931*	3.4623*	1.3161
Housing_services_inflation_9	-0.1955	0.8224	14.5159**	31.8901*
Housing_services_inflation_10	-0.7288	0.4825	*	2014500***
Housing_services_inflation_11	-3.9193***	0.0199***	9.8281***	18546.7562*
Housing_services_inflation_12	-5.304***	0.005***	20.1352**	555380000**
Transport/travel_services_inflation_1	-3.3508***	0.0351***	*	3542.7305**
Transport/travel_services_inflation_2	-2.3376***	0.0966***	8.1727***	*
Transport/travel_services_inflation_3	1.8172***	6.1546***	-0.8171**	0.4417**
Transport/travel_services_inflation_4	2.799**	16.4288***	-0.1326	0.8758
Transport/travel_services_inflation_5	0.6285	1.8748	1.6113***	5.0095***
Transport/travel_services_inflation_6	-0.9676*	0.38*	1.1723***	3.2294***
Transport/travel_services_inflation_7	1.7569***	5.7945***	1.4504***	4.2647***
Transport/travel_services_inflation_8	0.1969	1.2176	1.0225***	2.7801***
Transport/travel_services_inflation_9	0.5485	1.7306	0.4434	1.5579
Transport/travel_services_inflation_10	1.1323**	3.1029**	2.2129***	9.1426***
Transport/travel_services_inflation_11	-1.057*	0.3475*	1.2708***	3.5635***
Transport/travel_services_inflation_12	3.2037***	24.6224***	0.5445	1.7238
Communication_inflation_1	-2.8421***	0.0583***	0.9924**	2.6978**
			0.6419*	1.9001*
			0.3273	1.3872

Communication_inflation_2	-1.4694**	0.2301**	-0.0131	0.987
Communication_inflation_3	-1.9517***	0.142***	0.4191	1.5206
Communication_inflation_4	-0.8433	0.4303	2.3681***	10.6771***
Communication_inflation_5	-0.7497	0.4725	3.5062***	33.3201***
Communication_inflation_6	-2.5554***	0.0777***	2.9093***	18.3447***
Communication_inflation_7	2.7448***	15.562***	2.7046***	14.9477***
Communication_inflation_8	-3.0416***	0.0478***	-2.7762***	0.0623***
Communication_inflation_9	-1.9326***	0.1448***	-1.6965***	0.1833***
Communication_inflation_10	-1.1611*	0.3131*	-1.2507***	0.2863***
Communication_inflation_11	-0.016	0.9841	0.4914	1.6346
Communication_inflation_12	-0.6715	0.511	-0.0367	0.9639
Recreational/personal_services_inflation_1	-6.7294***	0.0012***	18.4703**	105090000**
Recreational/personal_services_inflation_2	3.9145*	50.1233*	11.9575**	155980***
Recreational/personal_services_inflation_3	-7.0474***	0.0009***	15.8501**	7648900***
Recreational/personal_services_inflation_4	-5.9555***	0.0026***	8.4387***	4622.3511**
Recreational/personal_services_inflation_5	2.3231	10.2075	13.5737**	785220***
Recreational/personal_services_inflation_6	-3.3447	0.0353	6.5206***	678.9749***
Recreational/personal_services_inflation_7	-4.7648**	0.0085**	1.1939	3.3001
Recreational/personal_services_inflation_8	0.4277	1.5337	-0.117	0.8896
Recreational/personal_services_inflation_9	0.7734	2.167	3.309*	27.3566*
Recreational/personal_services_inflation_10	-1.526	0.2174	5.9849***	397.3954***
Recreational/personal_services_inflation_11	-1.5235	0.2179	1.2527	3.4999
Recreational/personal_services_inflation_12	14.1196**	0***	-0.7223	0.4856
Miscellaneous_services_inflation_1	-4.5254***	0.0108***	0.484	1.6225
Miscellaneous_services_inflation_2	-1.1032	0.3318	-2.483*	0.0835*
Miscellaneous_services_inflation_3	-1.8543	0.1566	5.5808***	265.2848***
Miscellaneous_services_inflation_4	-2.375**	0.093**	2.6603**	14.3006**
Miscellaneous_services_inflation_5	-1.5391	0.2146	-1.5027	0.2225
Miscellaneous_services_inflation_6	-0.4945	0.6099	0.9259	2.5241
Miscellaneous_services_inflation_7	-5.445***	0.0043***	-4.2102***	0.0148***
Miscellaneous_services_inflation_8	-4.1889***	0.0152***	-4.6881***	0.0092***
Miscellaneous_services_inflation_9	-2.2693**	0.1034**	10.3785**	0***

			*	
Miscellaneous_services_inflation_10	-7.1736***	0.0008***	-3.2733**	0.0379**
	-			
	15.9623**			
Miscellaneous_services_inflation_11	*	0***	0.8893	2.4335
Miscellaneous_services_inflation_12	-6.4282***	0.0016***	-5.54***	0.0039***
Food/Non_alcoholic_expenditure	-4.6422***	0.0096***	1.0302***	2.8017***
Alcoholic_expenditure	-3.7397***	0.0238***	-0.2044***	0.8151***
Energy_expenditure	1.7631***	5.8304***	0.7259***	2.0666***
Non_energy_goods_expenditure	0.1998	1.2211	-0.1184	0.8884
Housing_services_expenditure	-4.13***	0.0161***	1.5477***	4.7007***
Transport/travel_services_expenditure	8.9812***	7952.29***	3.9124***	50.0182***
Communication_expenditure	-3.2218***	0.0399***	-1.7882***	0.1673***
Recreational/personal_services_expenditure	0.019	1.0191	-0.5661**	0.5677**
Miscellaneous_services_expenditure	-1.0716***	0.3425***	-1.2241***	0.294***

Alcoholic beverages, tobacco, and narcotics			
	with sales	full sample	
		coef	H.R.
SE		0.0364***	1.037***
SW		0.0355***	1.0361***
East_Anglia		-0.0136	0.9865
East_Midlands		0.0179*	1.018*
West_Midlands		0.0018	1.0019
Yorks_Humber		0.0126	1.0127
NW		0.0675***	1.0699***
North		0.0147	1.0148
Wales		0.0182*	1.0184*
Scotland		0.0462***	1.0473***
NI		0.0003	1.0003
FEB		0.1365***	1.1463***
MAR		0.0247	1.025
APR		-0.0533***	0.9481***
MAY		-0.0689***	0.9335***
JUN		-0.0042	0.9958
JUL		-0.0193	0.9809
AUG		-0.1014***	0.9036***
SEP		0.0229	1.0231
OCT		-0.0065	0.9936
NOV		0.0343	1.0348
DEC		0.0368	1.0375

wage	0.674***	1.9621***
independent	0.1836***	1.2015***
tax	-0.4716***	0.624***
NX	-0.0118***	0.9883***
nine_ending	-0.1516***	0.8593***
zero_ending	-0.0914***	0.9126***
sales	0.5395***	1.7151***
market_share	1.9269***	6.8681***
increase_increase	-0.1656***	0.8474***
increase_decrease	0.0171**	1.0172**
decrease_decrease	0.0695***	1.0719***
oil	0.0865**	1.0904**
oil_1	0.0022***	1.0022***
oil_2	-0.0009**	0.9991**
oil_3	0.0036***	1.0036***
oil_4	0.0015***	1.0015***
oil_5	0.0005	1.0005
oil_6	0.0001	1.0001
oil_7	0.0011**	1.0011**
oil_8	0.0016***	1.0016***
oil_9	-0.0002	0.9998
oil_10	0.0026***	1.0026***
oil_11	-0.0025***	0.9975***
oil_12	-0.0032***	0.9968***
inflation_1	-5.3699***	0.0047***
inflation_2	1.2323	3.429
inflation_3	-0.1344	0.8742
inflation_4	2.0361	7.6606
inflation_5	-0.3615	0.6967
inflation_6	-4.4984***	0.0111***
inflation_7	-7.7962***	0.0004***
inflation_8	-1.3233	0.2662
inflation_9	1.5442	4.6842
inflation_10	-1.746	0.1745
inflation_11	7.1585***	1285.0101***
inflation_12	-1.3165	0.2681
R	-0.5012***	0.6058***
R_1	0.0012**	1.0012**
R_2	-0.002***	0.998***
R_3	-0.0055***	0.9945***
R_4	-0.0049***	0.9951***
R_5	0.001**	1.001**
R_6	-0.0012**	0.9988**

R_7	-0.0035***	0.9965***
R_8	0.0018***	1.0018***
R_9	0.003***	1.003***
R_10	-0.002***	0.998***
R_11	0.0054***	1.0054***
R_12	0.0002	1.0002
Food/Non_alcoholic_inflation_1	3.5204***	33.7982***
Food/Non_alcoholic_inflation_2	5.1971***	180.7448***
Food/Non_alcoholic_inflation_3	4.4388***	84.6718***
Food/Non_alcoholic_inflation_4	5.5148***	248.3369***
Food/Non_alcoholic_inflation_5	4.8021***	121.7612***
Food/Non_alcoholic_inflation_6	-0.7299	0.482
Food/Non_alcoholic_inflation_7	1.6155***	5.0305***
Food/Non_alcoholic_inflation_8	0.0185	1.0187
Food/Non_alcoholic_inflation_9	0.9201	2.5096
Food/Non_alcoholic_inflation_10	-3.6751***	0.0253***
Food/Non_alcoholic_inflation_11	0.8372	2.3098
Food/Non_alcoholic_inflation_12	0.0759	1.0789
Alcoholic_inflation_1	-3.407***	0.0331***
Alcoholic_inflation_2	-4.7939***	0.0083***
Alcoholic_inflation_3	-4.5135***	0.011***
Alcoholic_inflation_4	-2.918***	0.054***
Alcoholic_inflation_5	-3.2696***	0.038***
Alcoholic_inflation_6	-0.0328	0.9677
Alcoholic_inflation_7	-1.1373**	0.3207**
Alcoholic_inflation_8	2.5293***	12.5447***
Alcoholic_inflation_9	2.9109***	18.3725***
Alcoholic_inflation_10	4.3447***	77.0725***
Alcoholic_inflation_11	4.6503***	104.6179***
Alcoholic_inflation_12	-1.675***	0.1873***
Energy_inflation_1	-0.0715	0.931
Energy_inflation_2	0.4791**	1.6147**
Energy_inflation_3	-0.244	0.7835
Energy_inflation_4	-1.3061***	0.2709***
Energy_inflation_5	-1.4219***	0.2413***
Energy_inflation_6	0.4185*	1.5197*
Energy_inflation_7	0.5798***	1.7856***
Energy_inflation_8	0.0556	1.0572
Energy_inflation_9	1.0496***	2.8564***
Energy_inflation_10	1.445***	4.2418***
Energy_inflation_11	-0.1533	0.8579
Energy_inflation_12	0.5733***	1.7741***
Non_energy_goods_inflation_1	-2.3339***	0.0969***

Non_energy_goods_inflation_2	0.2596	1.2965
Non_energy_goods_inflation_3	-0.7818*	0.4576*
Non_energy_goods_inflation_4	-0.1726	0.8414
Non_energy_goods_inflation_5	0.2446	1.2771
Non_energy_goods_inflation_6	-1.0277**	0.3578**
Non_energy_goods_inflation_7	-0.3968	0.6725
Non_energy_goods_inflation_8	1.1244**	3.0783**
Non_energy_goods_inflation_9	-0.4358	0.6468
Non_energy_goods_inflation_10	-2.0049***	0.1347***
Non_energy_goods_inflation_11	-0.8513*	0.4269*
Non_energy_goods_inflation_12	-1.0512**	0.3495**
Housing_services_inflation_1	-3.221***	0.0399***
Housing_services_inflation_2	-15.1222***	0***
Housing_services_inflation_3	-2.0322*	0.131*
Housing_services_inflation_4	-4.4285***	0.0119***
Housing_services_inflation_5	1.4783	4.3854
Housing_services_inflation_6	-9.9511***	0***
Housing_services_inflation_7	0.7906	2.2046
Housing_services_inflation_8	-12.8811***	0***
Housing_services_inflation_9	6.2204***	502.9257***
Housing_services_inflation_10	-1.6797	0.1864
Housing_services_inflation_11	7.5366***	1875.4979***
Housing_services_inflation_12	-0.692	0.5006
Transport/travel_services_inflation_1	2.0839***	8.0356***
Transport/travel_services_inflation_2	0.6196	1.8582
Transport/travel_services_inflation_3	2.4304***	11.363***
Transport/travel_services_inflation_4	0.6149	1.8495
Transport/travel_services_inflation_5	1.811***	6.1166***
Transport/travel_services_inflation_6	3.3777***	29.3028***
Transport/travel_services_inflation_7	1.4365***	4.2058***
Transport/travel_services_inflation_8	1.4402***	4.2214***
Transport/travel_services_inflation_9	-0.1531	0.8581
Transport/travel_services_inflation_10	0.6721	1.9583
Transport/travel_services_inflation_11	0.2345	1.2643
Transport/travel_services_inflation_12	0.6016	1.825
Communication_inflation_1	1.6698***	5.3111***
Communication_inflation_2	-1.7791***	0.1688***
Communication_inflation_3	4.1136***	61.1673***
Communication_inflation_4	2.4172***	11.2139***
Communication_inflation_5	1.8396***	6.2939***
Communication_inflation_6	0.1212	1.1288
Communication_inflation_7	3.6598***	38.852***
Communication_inflation_8	-1.5433***	0.2137***

Communication_inflation_9	3.4208***	30.595***
Communication_inflation_10	3.4074***	30.1876***
Communication_inflation_11	4.9573***	142.2041***
Communication_inflation_12	2.2108***	9.1234***
Recreational/personal_services_inflation_1	15.7554***	6957800***
Recreational/personal_services_inflation_2	6.8155***	911.8632***
Recreational/personal_services_inflation_3	-5.329***	0.0048***
Recreational/personal_services_inflation_4	17.4872***	39318000***
Recreational/personal_services_inflation_5	20.8501***	1135200000***
Recreational/personal_services_inflation_6	15.5092***	5439800***
Recreational/personal_services_inflation_7	-3.011*	0.0492*
Recreational/personal_services_inflation_8	0.3093	1.3625
Recreational/personal_services_inflation_9	4.5175***	91.6083***
Recreational/personal_services_inflation_10	12.2321***	205280***
Recreational/personal_services_inflation_11	-9.0957***	0.0001***
Recreational/personal_services_inflation_12	-7.1328***	0.0008***
Miscellaneous_services_inflation_1	-0.0347	0.9658
Miscellaneous_services_inflation_2	0.6721	1.9584
Miscellaneous_services_inflation_3	-4.7044***	0.0091***
Miscellaneous_services_inflation_4	0.6729	1.9599
Miscellaneous_services_inflation_5	-3.4689***	0.0312***
Miscellaneous_services_inflation_6	0.906	2.4744
Miscellaneous_services_inflation_7	0.3773	1.4584
Miscellaneous_services_inflation_8	-8.9661***	0.0001***
Miscellaneous_services_inflation_9	-4.1188***	0.0163***
Miscellaneous_services_inflation_10	-9.8307***	0.0001***
Miscellaneous_services_inflation_11	-1.0779	0.3403
Miscellaneous_services_inflation_12	0.2069	1.2298
Food/Non_alcoholic_expenditure	0.1061	1.1119
Alcoholic_expenditure	0.2999***	1.3498***
Energy_expenditure	0.0688**	1.0712**
Non_energy_goods_expenditure	-0.2428**	0.7845**
Housing_services_expenditure	0.2765***	1.3186***
Transport/travel_services_expenditure	0.2218***	1.2483***
Communication_expenditure	-0.1978**	0.8206**
Recreational/personal_services_expenditure	-0.3108***	0.7328***
Miscellaneous_services_expenditure	-0.4278***	0.6519***

Alcoholic beverages Pre- and Post-crisis

with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.

			0.0334**	
SE	0.0463***	1.0473***	*	1.0339***
			0.0527**	
SW	0.0119	1.012	*	1.0542***
East_Anglia	-0.0054	0.9946	0.0068	1.0069
East_Midlands	-0.0151	0.985	0.0312**	1.0317**
West_Midlands	0.0082	1.0082	0.0005	1.0005
Yorks_Humber	0.012	1.012	0.0098	1.0099
			0.0723**	
NW	0.0523***	1.0537***	*	1.0749***
North	-0.0049	0.9951	0.0298**	1.0302**
			0.0474**	
Wales	-0.0293*	0.9711*	*	1.0485***
			0.0758**	
Scotland	0.0043	1.0043	*	1.0787***
	-			
NI	0.0742***	0.9285***	0.0113	1.0113
			0.1405**	
FEB	0.1075***	1.1135***	*	1.1508***
MAR	0.0776**	1.0807**	0.0082	1.0083
			-	
			0.0774**	
APR	-0.024	0.9763	*	0.9255***
			-	
MAY	0.0181	1.0183	0.0555**	0.946**
JUN	0.0014	1.0014	0.015	1.0151
			-	
JUL	0.0017	1.0017	0.0663**	0.9358**
			-	
			0.0943**	
AUG	-0.0648*	0.9373*	*	0.91***
SEP	-0.0319	0.9686	0.0193	1.0195
OCT	-0.0381	0.9626	0.0237	1.0239
NOV	0.0554	1.057	-0.0015	0.9985
DEC	-0.0117	0.9884	0.0496	1.0508
			0.5344**	
wage	-0.0433	0.9576	*	1.7064***
			0.2802**	
independent	0.0763***	1.0793***	*	1.3234***
			-	
			0.3121**	
tax	1.0536***	0.3487***	*	0.7319***
			-	
			0.0885**	
NX	0.0105**	1.0105**	*	0.9153***
			-	
nine_ending	-0.142***	0.8676***	0.1271**	0.8806***

			*	
			-	
zero_ending	-		0.0581**	
	0.2279***	0.7962***	*	0.9435***
sales	0.586***	1.7968***	0.4754**	1.6087***
			*	
market_share	1.0468***	2.8486***	2.0376**	7.6723***
			*	
			-	
increase_increase	-0.0126	0.9875	0.2707**	
			*	0.7628***
			-	
increase_decrease	0.0402***	1.041***	0.0198**	0.9804**
			0.0464**	
decrease_decrease	0.0459**	1.047**	*	1.0475***
oil	0.2594***	1.2962***	-0.0509	0.9504
			0.0027**	
oil_1	0.0011	1.0011	*	1.0027***
			-	
oil_2	0.0025***	0.9975***	-0.001	0.999
oil_3	0	1	-0.0006	0.9994
			-	
oil_4	-0.0005	0.9995	0.0028**	
			*	0.9972***
			-	
oil_5	0.0032***	0.9968***	0.0031**	
			*	1.0031***
oil_6	-0.0019**	0.9981**	0.0005	1.0005
			0.0025**	
oil_7	-0.0002	0.9998	*	1.0025***
oil_8	-0.0001	0.9999	-0.0012*	0.9988*
oil_9	0.0005	1.0005	0	1
oil_10	0.0007	1.0007	0.0011	1.0011
			-	
			0.0059**	
oil_11	0.0002	1.0002	*	0.9941***
			-	
			0.0023**	
oil_12	-0.0018**	0.9982**	*	0.9977***
inflation_1	-6.9552**	0.001**	0.4086	1.5047
inflation_2	1.7401	5.6978	0.9708	2.64
inflation_3	2.0163	7.5101	-1.8283	0.1607
	10.0258*			
inflation_4	**	22601.6992***	-2.7694	0.0627
	14.0524*			
inflation_5	**	1267300***	-0.523	0.5928
	13.0933*			
inflation_6	**	485660***	-4.2804*	0.0138*

			-	
inflation_7	12.7155*		6.4722**	
	**	332880***	*	0.0015***
	10.0787*		-	
inflation_8	**	23829.0466***	4.7128**	0.009**
inflation_9	13.114***	495820***	-1.6239	0.1971
inflation_10	2.6662	14.3854	4.5016**	90.1598**
			7.0468**	
inflation_11	4.9076	135.3189	*	1149.2309***
inflation_12	4.3807	79.8958	-0.3654	0.6939
			-	
			0.3518**	
R	0.3109	1.3646	*	0.7034***
R_1	0.0123***	1.0124***	-0.0007	0.9993
			-	
R_2	0.0038*	1.0038*	0.0016**	0.9984**
			-	
R_3	0.0174***	0.9828***	-0.0005	0.9995
			-	
			0.0039**	
R_4	0.0022	1.0022	*	0.9961***
			0.0018**	
R_5	-0.0012	0.9988	*	1.0018***
			-	
R_6	0.0153***	1.0155***	0.003***	0.997***
			-	
			0.0034**	
R_7	-0.0001	0.9999	*	0.9966***
			0.0029**	
R_8	-0.0013	0.9987	*	1.0029***
			0.0024**	
R_9	0.0084***	1.0084***	*	1.0024***
			-	
R_10	0.0084***	1.0084***	0.003***	0.997***
			0.0035**	
R_11	0.017***	1.0172***	*	1.0035***
R_12	0.0046**	1.0046**	0.0016**	1.0016**
Food/Non_alcoholic_inflation_1	-1.4353	0.238	5.315***	203.3701***
Food/Non_alcoholic_inflation_2	2.2077*	9.0947*	0.183	1.2009
Food/Non_alcoholic_inflation_3	-1.1539	0.3154	2.0487**	7.7581**
			3.8379**	
Food/Non_alcoholic_inflation_4	-1.9616*	0.1406*	*	46.4301***
	13.8436*			
Food/Non_alcoholic_inflation_5	**	1028500***	0.5798	1.7857
Food/Non_alcoholic_inflation_6	1.7044	5.4982	-0.5839	0.5577
Food/Non_alcoholic_inflation_7	2.2451**	9.4411**	-0.8002	0.4492
Food/Non_alcoholic_inflation_8	-1.7827	0.1682	4.3645**	78.6131***

			*	
Food/Non_alcoholic_inflation_9	2.3288**	10.2657**	2.2577**	9.561**
			-	
			2.7914**	
Food/Non_alcoholic_inflation_10	3.6561***	0.0258***	*	0.0613***
Food/Non_alcoholic_inflation_11	-2.1278*	0.1191*	3.499***	33.0834***
			2.5332**	
Food/Non_alcoholic_inflation_12	-3.318***	0.0362***	*	12.5938***
			-	
			3.8796**	
Alcoholic_inflation_1	-1.1612	0.3131	*	0.0207***
			-	
			4.7573**	
Alcoholic_inflation_2	7.4401***	0.0006***	*	0.0086***
			-	
			3.9628**	
Alcoholic_inflation_3	-0.9683	0.3797	*	0.019***
			-	
			3.3371**	
Alcoholic_inflation_4	-0.3332	0.7166	*	0.0355***
			-	
			4.7689**	
Alcoholic_inflation_5	1.4199	4.1369	*	0.0085***
			-	
			2.2371**	
Alcoholic_inflation_6	3.8224***	45.7139***	*	0.1068***
Alcoholic_inflation_7	2.1307*	8.4207*	-0.7337	0.4801
Alcoholic_inflation_8	1.3974	4.0448	2.324***	10.2167***
Alcoholic_inflation_9	0.2141	1.2388	1.1582*	3.1841*
			3.2286**	
Alcoholic_inflation_10	-0.1533	0.8579	*	25.2439***
Alcoholic_inflation_11	7.6581***	2117.6272***	1.2101*	3.3538*
Alcoholic_inflation_12	-6.512***	0.0015***	-1.0046*	0.3662*
Energy_inflation_1	-0.5742	0.5631	-0.2201	0.8024
Energy_inflation_2	1.7573***	5.7968***	0.1221	1.1298
Energy_inflation_3	-0.1571	0.8546	-0.0464	0.9547
Energy_inflation_4	0.5214	1.6844	-0.3832	0.6817
			-	
			0.8986**	
Energy_inflation_5	-0.9036*	0.4051*	*	0.4072***
Energy_inflation_6	-0.2371	0.7889	0.5327	1.7036
Energy_inflation_7	0.9152**	2.4974**	-0.6071*	0.5449*
Energy_inflation_8	0.4216	1.5243	-0.6481*	0.5231*
Energy_inflation_9	0.4502	1.5687	0.094	1.0985
Energy_inflation_10	3.5344***	34.273***	0.8885**	2.4314**
Energy_inflation_11	2.1469***	8.558***	0.3879	1.4739

Energy_inflation_12	0.7402*	2.0963*	1.7079** *	5.5176***
			-	
Non_energy_goods_inflation_1	0.3205	1.3779	3.0241** *	0.0486***
Non_energy_goods_inflation_2	0.979	2.6617	-0.7674	0.4642
Non_energy_goods_inflation_3	1.4257**	4.1608**	-0.5651	0.5683
			-	
Non_energy_goods_inflation_4	2.3153***	10.1282***	2.5701** *	0.0765***
			-	
Non_energy_goods_inflation_5	-0.8767	0.4161	1.5112**	0.2207**
			-	
Non_energy_goods_inflation_6	1.5834**	4.8717**	4.0158** *	0.018***
			-	
Non_energy_goods_inflation_7	-0.2833	0.7533	2.6507** *	0.0706***
			-	
Non_energy_goods_inflation_8	1.146	3.1456	2.1746** *	0.1137***
Non_energy_goods_inflation_9	1.5182*	4.5641*	-1.2707*	0.2806*
Non_energy_goods_inflation_10	0.2107	1.2346	-0.5114	0.5997
			-	
Non_energy_goods_inflation_11	-0.8258	0.4379	2.4647** *	0.085***
			-	
Non_energy_goods_inflation_12	2.3847***	10.8559***	4.0507** *	0.0174***
			-	
Housing_services_inflation_1	9.2914***	0.0001***	18.2398 ***	83450000***
			-	
Housing_services_inflation_2	17.1951* **	0***	7.6456**	0.0005**
Housing_services_inflation_3	2.0313	7.6237	1.5962	4.9342
			-	
Housing_services_inflation_4	6.6145***	0.0013***	5.4031* 17.2858	222.0937*
Housing_services_inflation_5	-4.1467* -	0.0158*	***	32145000***
	12.3742* **	0***	4.0091	55.095
Housing_services_inflation_6	-1.0017	0.3673	2.7971	16.397
			-	
Housing_services_inflation_7	11.0855* **	0***	-2.4186	0.089
Housing_services_inflation_8	8.4262***	4565.0648***	5.4699*	237.4358*
Housing_services_inflation_9	-1.0303	0.3569	7.7016**	2211.8444***
Housing_services_inflation_10				

			*	
			-	
Housing_services_inflation_11	4.583**	97.8041**	6.7231**	0.0012**
Housing_services_inflation_12	5.0311**	153.1012**	0.3155	1.3709
Transport/travel_services_inflation_1	-0.7854	0.456	1.1861**	3.2744**
Transport/travel_services_inflation_2	1.7097*	5.527*	0.3574	1.4295
			2.1041**	
Transport/travel_services_inflation_3	-1.6935*	0.1839*	*	8.2001***
Transport/travel_services_inflation_4	-0.3077	0.7352	0.9031*	2.4672*
Transport/travel_services_inflation_5	-2.2988**	0.1004**	0.9417*	2.5644*
Transport/travel_services_inflation_6	2.4162**	11.2037**	0.9323	2.5404
			1.6003**	
Transport/travel_services_inflation_7	2.0906**	8.0901**	*	4.9547***
Transport/travel_services_inflation_8	-0.3921	0.6756	2.94***	18.9162***
Transport/travel_services_inflation_9	-0.7673	0.4643	0.3691	1.4465
Transport/travel_services_inflation_10	-1.8159*	0.1627*	1.5021**	4.4909**
Transport/travel_services_inflation_11	1.5619	4.768	0.7032	2.0203
Transport/travel_services_inflation_12	-0.6282	0.5335	0.8155	2.2603
			2.4269**	
Communication_inflation_1	1.9177*	6.8052*	*	11.3242***
			-	
Communication_inflation_2	8.6717***	0.0002***	1.9162**	6.7948**
			2.1564**	
Communication_inflation_3	0.5291	1.6973	*	8.6403***
			-	
Communication_inflation_4	4.8606***	0.0077***	3.255***	25.9208***
			4.1485**	
Communication_inflation_5	5.4154***	0.0044***	*	63.3388***
			-	
	10.3263*		7.0486**	
Communication_inflation_6	**	0***	*	1151.2553***
			7.4663**	
Communication_inflation_7	7.3872***	1615.1658***	*	1748.1886***
			-	
Communication_inflation_8	2.9715***	0.0512***	-1.387*	0.2498*
			2.6766**	
Communication_inflation_9	4.4386***	84.6548***	*	14.5358***
			4.2974**	
Communication_inflation_10	5.7556***	315.9692***	*	73.5064***
			7.3723**	
Communication_inflation_11	1.3754	3.9568	*	1591.3501***
			4.6428**	
Communication_inflation_12	1.7356	5.6723	*	103.8336***
Recreational/personal_services_inflation_1	-8.6895**	0.0002**	20.1072	540080000***

Recreational/personal_services_inflation_2	9.641***	15383.0827***	10.8884***	53553.1151***
	-			
Recreational/personal_services_inflation_3	16.1385**	0***	1.527	4.6044
Recreational/personal_services_inflation_4	6.2469*	516.3935*	28.4526***	227410000000
Recreational/personal_services_inflation_5	28.2338**	182720000000	19.4199***	0***
Recreational/personal_services_inflation_6	14.6204**	2236500***	16.0893***	271610000***
Recreational/personal_services_inflation_7	7.7398**	2298.0165**	-4.1524	0.0157
Recreational/personal_services_inflation_8	-0.0447	0.9563	-1.8792	0.1527
Recreational/personal_services_inflation_9	9.8486***	18931.3442***	4.2077	67.1999
Recreational/personal_services_inflation_10	10.2288**	27690.6358***	6.6668**	785.9045**
Recreational/personal_services_inflation_11	-7.6848**	0.0005**	-1.0118	0.3636
	-			
Recreational/personal_services_inflation_12	14.4568**	0***	12.6374***	307860***
			5.0039**	
Miscellaneous_services_inflation_1	-2.9441	0.0527	*	148.9874***
	-			
Miscellaneous_services_inflation_2	12.5824**	0***	12.6956***	326290***
			6.9754**	
Miscellaneous_services_inflation_3	-3.6839*	0.0251*	*	1070.0257***
Miscellaneous_services_inflation_4	-0.2654	0.7669	-3.699*	0.0247*
	-			
Miscellaneous_services_inflation_5	8.3774***	0.0002***	1.8751	6.5213
			-	
Miscellaneous_services_inflation_6	-0.2354	0.7903	5.2625**	0.0052***
Miscellaneous_services_inflation_7	3.0755	21.6597	*	0.1759
			-	
Miscellaneous_services_inflation_8	1.4729	4.362	9.5938**	0.0001***
			*	
Miscellaneous_services_inflation_9	-2.9422	0.0528	-	0.0248**
	-		3.6972**	
Miscellaneous_services_inflation_10	17.0473**	0***	-0.0011	0.9989
	**			
Miscellaneous_services_inflation_11	7.7766***	0.0004***	3.3905*	29.6798*
	-			

Miscellaneous_services_inflation_12	4.0445*	57.082*	1.2187	3.3829
Food/Non_alcoholic_expenditure	-0.4301	0.6504	0.0033	1.0033
Alcoholic_expenditure	-0.102	0.903	0.0622	1.0642
Energy_expenditure	-0.023	0.9773	0.1028**	1.1083**
Non_energy_goods_expenditure	-1.3778**	0.2521**	0.0006	1.0006
Housing_services_expenditure	2.4701***	11.8233***	-0.0289	0.9716
Transport/travel_services_expenditure	0.8572***	2.3565***	0.0507	1.052
Communication_expenditure	0.0797	1.083	-0.0801	0.923
Recreational/personal_services_expenditure	-	1.7314***	-0.0552	0.9463
			-	
			0.2594**	
Miscellaneous_services_expenditure	2.1702***	8.7599***	*	0.7715***

Alcoholic beverages, tobacco, and narcotics		
	without sales	full sample
	coef	H.R.
SE	0.0348***	1.0354***
SW	0.0165	1.0166
East_Anglia	-0.0245**	0.9758**
East_Midlands	0.006	1.006
West_Midlands	-0.0024	0.9976
Yorks_Humber	0.0232**	1.0235**
NW	0.065***	1.0672***
North	-0.0145	0.9856
Wales	-0.0095	0.9906
Scotland	0.034***	1.0346***
NI	0.0217	1.022
FEB	0.1213***	1.1289***
MAR	0.0498*	1.0511*
APR	-0.0443**	0.9567**
MAY	-0.0617***	0.9402***
JUN	-0.0299	0.9706
JUL	-0.0389*	0.9618*
AUG	-0.1504***	0.8604***
SEP	0.0064	1.0064
OCT	-0.0384	0.9623
NOV	0.0499**	1.0511**
DEC	0.0259	1.0262
wage	4.0175***	55.564***
independent	0.1351***	1.1447***

tax	-0.5581***	0.5723***
NX	-0.0344***	0.9661***
nine_ending	-0.2579***	0.7727***
zero_ending	-0.2331***	0.7921***
market_share	0.7385***	2.0929***
increase_increase	-0.0869***	0.9168***
increase_decrease	0.0434***	1.0444***
decrease_decrease	0.0662***	1.0684***
oil	0.0591	1.0609
oil_1	0.0019***	1.0019***
oil_2	0	1
oil_3	0.0036***	1.0036***
oil_4	0.0033***	1.0033***
oil_5	0.0007	1.0007
oil_6	-0.0007	0.9993
oil_7	0.002***	1.002***
oil_8	0.0034***	1.0035***
oil_9	0.0012**	1.0012**
oil_10	0.004***	1.004***
oil_11	-0.0024***	0.9976***
oil_12	-0.0021***	0.9979***
inflation_1	-6.333***	0.0018***
inflation_2	0.1452	1.1562
inflation_3	3.1546*	23.4438*
inflation_4	6.5945***	731.0485***
inflation_5	-2.5974	0.0745
inflation_6	2.1292	8.4083
inflation_7	-6.251***	0.0019***
inflation_8	0.9285	2.5307
inflation_9	3.5907**	36.2605**
inflation_10	-1.3955	0.2477
inflation_11	8.1872***	3594.8084***
inflation_12	-0.9005	0.4063
R	-0.3696***	0.691***
R_1	0.0035***	1.0035***
R_2	0.0012**	1.0012**
R_3	-0.0052***	0.9948***
R_4	-0.0048***	0.9953***
R_5	0.0039***	1.0039***
R_6	0.0007	1.0007
R_7	-0.0016**	0.9984**
R_8	0.0024***	1.0024***
R_9	0.0012**	1.0012**

R_10	-0.0014**	0.9986**
R_11	0.0058***	1.0059***
R_12	-0.0022***	0.9978***
Food/Non_alcoholic_inflation_1	4.5496***	94.594***
Food/Non_alcoholic_inflation_2	6.0092***	407.1633***
Food/Non_alcoholic_inflation_3	4.4474***	85.4084***
Food/Non_alcoholic_inflation_4	6.4169***	612.1187***
Food/Non_alcoholic_inflation_5	4.9685***	143.8087***
Food/Non_alcoholic_inflation_6	-3.3216***	0.0361***
Food/Non_alcoholic_inflation_7	4.4793***	88.1746***
Food/Non_alcoholic_inflation_8	0.8628	2.3699
Food/Non_alcoholic_inflation_9	0.0331	1.0337
Food/Non_alcoholic_inflation_10	-1.9475***	0.1426***
Food/Non_alcoholic_inflation_11	1.1397*	3.1259*
Food/Non_alcoholic_inflation_12	3.1459***	23.2402***
Alcoholic_inflation_1	-3.8258***	0.0218***
Alcoholic_inflation_2	-5.5794***	0.0038***
Alcoholic_inflation_3	-3.2689***	0.038***
Alcoholic_inflation_4	-2.6869***	0.0681***
Alcoholic_inflation_5	-3.445***	0.0319***
Alcoholic_inflation_6	0.2334	1.2629
Alcoholic_inflation_7	-0.5699	0.5656
Alcoholic_inflation_8	4.3477***	77.2988***
Alcoholic_inflation_9	4.9392***	139.6541***
Alcoholic_inflation_10	4.3437***	76.9887***
Alcoholic_inflation_11	5.3055***	201.4405***
Alcoholic_inflation_12	-0.5493	0.5773
Energy_inflation_1	0.3583	1.4309
Energy_inflation_2	0.7393***	2.0946***
Energy_inflation_3	-0.2751	0.7595
Energy_inflation_4	-1.7894***	0.1671***
Energy_inflation_5	-1.0946***	0.3347***
Energy_inflation_6	-0.1148	0.8916
Energy_inflation_7	0.5142**	1.6723**
Energy_inflation_8	-0.1681	0.8452
Energy_inflation_9	0.839***	2.3141***
Energy_inflation_10	1.7088***	5.5223***
Energy_inflation_11	-0.6004**	0.5486**
Energy_inflation_12	-0.5214**	0.5937**
Non_energy_goods_inflation_1	-2.1594***	0.1154***
Non_energy_goods_inflation_2	0.1468	1.1581
Non_energy_goods_inflation_3	-0.6274	0.534
Non_energy_goods_inflation_4	0.6376	1.892

Non_energy_goods_inflation_5	-0.0373	0.9634
Non_energy_goods_inflation_6	1.1953**	3.3047**
Non_energy_goods_inflation_7	-0.0132	0.9869
Non_energy_goods_inflation_8	2.1528***	8.6089***
Non_energy_goods_inflation_9	0.2549	1.2903
Non_energy_goods_inflation_10	-1.5075***	0.2215***
Non_energy_goods_inflation_11	1.0796*	2.9435*
Non_energy_goods_inflation_12	-1.1854**	0.3056**
Housing_services_inflation_1	-3.0734**	0.0463**
Housing_services_inflation_2	-14.6696***	0***
Housing_services_inflation_3	-2.3728**	0.0932**
Housing_services_inflation_4	-5.9222***	0.0027***
Housing_services_inflation_5	2.1549	8.6273
Housing_services_inflation_6	-10.8033***	0***
Housing_services_inflation_7	0.0433	1.0442
Housing_services_inflation_8	-7.1328***	0.0008***
Housing_services_inflation_9	8.1994***	3638.9374***
Housing_services_inflation_10	9.548***	14016.1808***
Housing_services_inflation_11	20.5622***	851210000***
Housing_services_inflation_12	2.693**	14.7752**
Transport/travel_services_inflation_1	1.7978***	6.0365***
Transport/travel_services_inflation_2	2.0593***	7.8404***
Transport/travel_services_inflation_3	3.0639***	21.4105***
Transport/travel_services_inflation_4	-0.0765	0.9263
Transport/travel_services_inflation_5	1.0639**	2.8976**
Transport/travel_services_inflation_6	4.9154***	136.3699***
Transport/travel_services_inflation_7	1.7987***	6.0418***
Transport/travel_services_inflation_8	1.3053***	3.6889***
Transport/travel_services_inflation_9	2.3601***	10.5917***
Transport/travel_services_inflation_10	-0.1564	0.8553
Transport/travel_services_inflation_11	0.3824	1.4658
Transport/travel_services_inflation_12	1.5275***	4.6066***
Communication_inflation_1	0.141	1.1515
Communication_inflation_2	-1.5891***	0.2041***
Communication_inflation_3	4.4514***	85.7439***
Communication_inflation_4	3.1493***	23.3205***
Communication_inflation_5	1.8535***	6.3819***
Communication_inflation_6	0.9983*	2.7137*
Communication_inflation_7	6.4889***	657.8183***
Communication_inflation_8	-1.0302**	0.357**
Communication_inflation_9	5.7636***	318.4771***
Communication_inflation_10	5.4237***	226.7171***
Communication_inflation_11	5.3569***	212.0734***

Communication_inflation_12	0.8449	2.3278
Recreational/personal_services_inflation_1	16.3249***	12297000***
Recreational/personal_services_inflation_2	9.0414***	8445.7834***
Recreational/personal_services_inflation_3	-2.7712	0.0626
Recreational/personal_services_inflation_4	18.6449***	125130000***
Recreational/personal_services_inflation_5	25.9271***	18196000000***
Recreational/personal_services_inflation_6	12.1672***	192370***
Recreational/personal_services_inflation_7	-6.2718***	0.0019***
Recreational/personal_services_inflation_8	2.5658	13.0106
Recreational/personal_services_inflation_9	-4.552**	0.0105**
Recreational/personal_services_inflation_10	11.2861***	79709.312***
Recreational/personal_services_inflation_11	-13.0888***	0***
Recreational/personal_services_inflation_12	-12.8567***	0***
Miscellaneous_services_inflation_1	-2.0325*	0.131*
Miscellaneous_services_inflation_2	-6.8082***	0.0011***
Miscellaneous_services_inflation_3	-8.9428***	0.0001***
Miscellaneous_services_inflation_4	-2.1966*	0.1112*
Miscellaneous_services_inflation_5	-3.5823***	0.0278***
Miscellaneous_services_inflation_6	3.0416***	20.9396***
Miscellaneous_services_inflation_7	-1.4849	0.2265
Miscellaneous_services_inflation_8	-8.2687***	0.0003***
Miscellaneous_services_inflation_9	-3.4419***	0.032***
Miscellaneous_services_inflation_10	-8.4989***	0.0002***
Miscellaneous_services_inflation_11	2.2535*	9.521*
Miscellaneous_services_inflation_12	4.4193***	83.035***
Food/Non_alcoholic_expenditure	0.4546**	1.5755**
Alcoholic_expenditure	-0.0432	0.9577
Energy_expenditure	0.0769	1.08
Non_energy_goods_expenditure	4.1055***	60.6719***
Housing_services_expenditure	0.1025	1.1079
Transport/travel_services_expenditure	3.5156***	33.6371***
Communication_expenditure	0.4233***	1.5271***
Recreational/personal_services_expenditure	-2.7439***	0.0643***
Miscellaneous_services_expenditure	-0.9596***	0.383***

Alcoholic beverages Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.048***	1.0492***	0.0332***	1.0338***
SW	0.0021	1.0021	0.0353**	1.0359**
East_Anglia	-0.0246	0.9757	0.0066	1.0066

East_Midlands	0.0032	1.0032	0.0095	1.0096
West_Midlands	0.0099	1.0099	-0.0068	0.9933
Yorks_Humber	0.0175	1.0176	0.0313**	1.0318**
NW	0.0457***	1.0468***	0.0745***	1.0773***
North	-0.0143	0.9858	0.0044	1.0044
Wales	-0.0422**	0.9587**	0.0269*	1.0272*
Scotland	0.016	1.0162	0.0616***	1.0635***
NI	-0.0523**	0.9491**	0.0488***	1.05***
FEB	0.0752*	1.0781*	0.178***	1.1948***
MAR	0.0477	1.0488	0.0447	1.0457
APR	-0.0248	0.9755	0.0895***	0.9144***
MAY	0.0147	1.0148	-0.0506*	0.9506*
JUN	-0.0178	0.9823	0.1253***	0.8823***
JUL	-0.0325	0.9681	0.1183***	0.8884***
AUG	-0.0368	0.9638	0.1389***	0.8703***
SEP	0.0208	1.021	0.0117	1.0117
OCT	-0.0348	0.9658	0.021	1.0212
NOV	0.0882*	1.0922*	0.0514	1.0527
DEC	-0.0126	0.9875	0.116***	1.123***
wage	1.5695**	4.8044**	1.8322***	6.2477***
independent	0.0451***	1.0461***	0.2164***	1.2416***
tax	0.5659*	1.7611*	-0.0665	0.9357
NX	-0.0019	0.9981	0.1027***	0.9024***
nine_ending	0.2022***	0.8169***	0.2568***	0.7736***
zero_ending	0.2582***	0.7724***	0.2305***	0.7941***
market_share	0.3002***	0.7407***	0.9276***	2.5286***
increase_increase	0.0235**	1.0238**	0.1664***	0.8467***
increase_decrease	0.0564***	1.058***	0.0089	1.009
decrease_decrease	0.0543**	1.0558**	0.0931***	1.0975***
oil	0.3402***	1.4052***	-0.1105	0.8954
oil_1	-0.0005	0.9995	0.0016*	1.0016*
oil_2	0.0035***	0.9966***	0.0002	1.0002
oil_3	0.0019**	1.0019**	-0.0003	0.9997
oil_4	-0.0015	0.9985	-0.0003	0.9997
oil_5	-	0.9973***	0.004***	1.004***

	0.0027***			
	-			
oil_6	0.0035***	0.9965***	-0.0014	0.9986
oil_7	0.0011	1.0011	0.0036***	1.0036***
oil_8	0.0012	1.0012	0.0013	1.0013
oil_9	-0.0001	0.9999	0.0024***	1.0024***
oil_10	0.0014	1.0014	0.0033***	1.0033***
oil_11	-0.0011	0.9989	-0.006***	0.994***
oil_12	-0.0015	0.9985	0.0008	1.0008
inflation_1	-6.6782**	0.0013**	0.4904	1.6329
inflation_2	2.9224	18.5854	1.721	5.5899
inflation_3	-0.9131	0.4013	0.7744	2.1693
inflation_4	10.6964*	44195.4307*		
	**	**	2.1397	8.4967
inflation_5	13.3726*			
	**	642180***	-4.2142	0.0148
inflation_6	10.0473*	23093.2753*		
	**	**	3.6292	37.6832
inflation_7		18000.8956*		
	9.7982***	**	7.2711***	0.0007***
inflation_8	2.4111	11.1458	-1.1944	0.3029
inflation_9	11.6603*			
	**	115880***	-2.2292	0.1076
inflation_10	-1.8491	0.1574	3.6219	37.4101
inflation_11	-0.1769	0.8378	5.2209*	185.1069*
inflation_12	1.3629	3.9073	-5.1**	0.0061**
R	-0.0378	0.9629	-0.1172	0.8894
R_1	0.0064***	1.0065***	0	1
R_2	0.0069***	1.0069***	-0.0005	0.9995
R_3	-0.018***	0.9822***	-0.0006	0.9994
R_4			-	
	0.0011	1.0011	0.0053***	0.9947***
R_5	-0.0021	0.9979	0.0032***	1.0032***
R_6			-	
	0.021***	1.0212***	0.0022***	0.9978***
R_7	0.0037*	1.0037*	-0.0014*	0.9986*
R_8	0.0053**	1.0054**	0.0011	1.0011
R_9	0.0135***	1.0136***	-0.0014*	0.9986*
R_10	0.015***	1.0151***	-0.003***	0.997***
R_11	0.0243***	1.0246***	0.0024***	1.0024***
R_12	0.0093***	1.0094***	-0.0003	0.9997
Food/Non_alcoholic_inflation_1	-1.3408	0.2616	5.5889***	267.428***
Food/Non_alcoholic_inflation_2	5.1962***	180.5784***	-0.0422	0.9587
Food/Non_alcoholic_inflation_3	-2.2386*	0.1066*	0.6445	1.9051
Food/Non_alcoholic_inflation_4	-1.8927	0.1507	3.6875***	39.9454***

	17.2001*			
Food/Non_alcoholic_inflation_5	**	29506000***	-0.7427	0.4758
			-	
Food/Non_alcoholic_inflation_6	-1.3606	0.2565	3.0445***	0.0476***
Food/Non_alcoholic_inflation_7	3.5926***	36.3282***	2.0882*	8.0703*
	-			
Food/Non_alcoholic_inflation_8	4.3206***	0.0133***	5.478***	239.3573***
	-			
Food/Non_alcoholic_inflation_9	3.2096***	0.0404***	2.3639**	10.6328**
	-			
Food/Non_alcoholic_inflation_10	3.3218***	0.0361***	-2.7131**	0.0663**
	-			
Food/Non_alcoholic_inflation_11	4.1201***	0.0162***	3.5249***	33.9487***
Food/Non_alcoholic_inflation_12	-0.1998	0.8189	2.5801**	13.1984**
			-	
Alcoholic_inflation_1	-2.0182	0.1329	3.8171***	0.022***
	-		-	
Alcoholic_inflation_2	7.3932***	0.0006***	4.2932***	0.0137***
			-	
Alcoholic_inflation_3	0.6893	1.9923	2.9648***	0.0516***
			-	
Alcoholic_inflation_4	-2.3187*	0.0984*	2.6276***	0.0723***
			-	
Alcoholic_inflation_5	0.3529	1.4232	3.9596***	0.0191***
			-	
Alcoholic_inflation_6	4.5193***	91.7758***	2.0647***	0.1269***
Alcoholic_inflation_7	3.3881**	29.6082**	-1.0412	0.353
Alcoholic_inflation_8	0.1612	1.1749	4.1943***	66.3047***
Alcoholic_inflation_9	2.5078	12.2782	2.2364***	9.3597***
Alcoholic_inflation_10	-1.7038	0.182	3.0789***	21.7335***
	12.7401*			
Alcoholic_inflation_11	**	341150***	0.155	1.1677
	-			
Alcoholic_inflation_12	5.8713***	0.0028***	0.4351	1.5451
Energy_inflation_1	0.3998	1.4916	0.4539	1.5744
Energy_inflation_2	1.7649***	5.8409***	0.3663	1.4424
Energy_inflation_3	0.041	1.0419	0.4543	1.5751
Energy_inflation_4	0.918*	2.5043*	-0.8185**	0.4411**
Energy_inflation_5	-0.2812	0.7548	-0.2811	0.755
Energy_inflation_6	-0.1061	0.8994	0.5086	1.663
Energy_inflation_7	1.1965**	3.3084**	-0.7563*	0.4694*
Energy_inflation_8	0.8505*	2.3409*	-0.8757**	0.4166**
Energy_inflation_9	-0.2631	0.7687	0.4441	1.559
Energy_inflation_10	3.6413***	38.1405***	1.0609***	2.889***
Energy_inflation_11	3.019***	20.4712***	-0.0068	0.9932
Energy_inflation_12	-0.2329	0.7922	1.0319**	2.8063**

			-	
Non_energy_goods_inflation_1	-0.5671	0.5672	2.3021***	0.1001***
Non_energy_goods_inflation_2	0.7358	2.0871	1.1157	3.0518
Non_energy_goods_inflation_3	1.2688*	3.5565*	0.156	1.1689
Non_energy_goods_inflation_4	2.4449***	11.5295***	0.7463	2.1093
Non_energy_goods_inflation_5	-1.2084	0.2987	-1.3256	0.2656
Non_energy_goods_inflation_6	1.8246**	6.2**	-1.9872**	0.1371**
			-	
Non_energy_goods_inflation_7	-0.455	0.6344	3.4484***	0.0318***
Non_energy_goods_inflation_8	0.352	1.4219	-0.9561	0.3844
Non_energy_goods_inflation_9	0.8792	2.4089	-0.4206	0.6567
Non_energy_goods_inflation_10	-0.305	0.7371	0.2072	1.2303
Non_energy_goods_inflation_11	-0.7373	0.4784	0.2254	1.2528
			-	
Non_energy_goods_inflation_12	1.5764*	4.8375*	2.8494***	0.0579***
	-			
	13.2208*		16.2659*	
Housing_services_inflation_1	**	0***	**	11593000***
	-			
	15.8519*			
Housing_services_inflation_2	**	0***	-4.0265	0.0178
			-	
			13.2901*	
Housing_services_inflation_3	2.1773	8.822	**	0***
			-	
Housing_services_inflation_4	6.0471***	0.0024***	-1.8371	0.1593
			11.0295*	
Housing_services_inflation_5	-3.1285	0.0438	**	61669.7008***
			-	
Housing_services_inflation_6	11.982***	0***	-1.1184	0.3268
Housing_services_inflation_7	-1.8884	0.1513	-4.281	0.0138
			-	
Housing_services_inflation_8	7.5723***	0.0005***	2.4367	11.4354
			11.3008*	
Housing_services_inflation_9	8.5112***	4969.948***	**	80888.8344***
			13.0179*	
Housing_services_inflation_10	6.8452***	939.3722***	**	450400***
Housing_services_inflation_11	4.7583**	116.5458**	2.229	9.2908
	10.2146*	27299.9412*		
Housing_services_inflation_12	**	**	-4.8612	0.0077
	-			
Transport/travel_services_inflation_1	3.9175***	0.0199***	1.901***	6.6926***
Transport/travel_services_inflation_2	1.1503	3.1592	0.4456	1.5614
			-	
Transport/travel_services_inflation_3	3.0859***	0.0457***	1.9205***	6.8241***
Transport/travel_services_inflation_4	1.037	2.8208	0.4713	1.602
Transport/travel_services_inflation_5	-1.9873**	0.1371**	-0.8655	0.4209

Transport/travel_services_inflation_6	2.0692**	7.9188**	2.1101***	8.2489***
Transport/travel_services_inflation_7	0.8111	2.2505	2.2544***	9.5299***
Transport/travel_services_inflation_8	-1.6961*	0.1834*	3.5844***	36.0312***
Transport/travel_services_inflation_9	1.911*	6.7601*	2.4852***	12.0037***
Transport/travel_services_inflation_10	1.6837*	5.3852*	-0.0566	0.945
Transport/travel_services_inflation_11	2.1463**	8.5529**	0.5095	1.6645
Transport/travel_services_inflation_12	1.8533*	6.3811*	-0.0834	0.9199
Communication_inflation_1	1.2881	3.626	0.1691	1.1843
Communication_inflation_2	6.5835***	0.0014***	0.4522	1.5717
Communication_inflation_3	3.1416**	23.1417**	0.3326	1.3946
Communication_inflation_4	4.4484***	0.0117***	4.3828***	80.0613***
Communication_inflation_5	-2.9425**	0.0527**	2.2153**	9.1641**
Communication_inflation_6	12.1415**	0***	7.3504***	1556.8377***
Communication_inflation_7	11.8577**	141170***	7.1586***	1285.0691***
Communication_inflation_8	3.0624***	0.0468***	2.7222***	0.0657***
Communication_inflation_9	6.5551***	702.7955***	1.9509**	7.0351**
Communication_inflation_10	3.6228***	37.4433***	3.3852***	29.5239***
Communication_inflation_11	1.3273	3.771	3.0031***	20.1482***
Communication_inflation_12	0.7106	2.0353	1.9847**	7.2766**
Recreational/personal_services_inflation_1	10.8017**	0***	26.4053*	293530000000**
Recreational/personal_services_inflation_2	7.1483*	1271.9412*	18.0738*	70691000***
Recreational/personal_services_inflation_3	18.2857**	0***	10.8551*	51800.0986***
Recreational/personal_services_inflation_4	-6.2619	0.0019	30.8576*	2519300000000
Recreational/personal_services_inflation_5	20.8565**	1142500000	18.9825*	0***
Recreational/personal_services_inflation_6	7.9645**	2877.0565**	8.7915**	175390000***
Recreational/personal_services_inflation_7	-3.1369	0.0434	-5.5944*	6577.8454**
Recreational/personal_services_inflation_8	-8.45**	0.0002**	0.3415	0.0037*
Recreational/personal_services_inflation_9	7.049*	1151.7287*	-	1.4071
Recreational/personal_services_inflation_10				0***

on_9			10.4561*	
			**	
Recreational/personal_services_inflati on_10	8.6709**	5830.6204**	7.7453**	2310.6412**
			-	
Recreational/personal_services_inflati on_11	-9.5826**	0.0001**	14.6937*	0***
			**	
Recreational/personal_services_inflati on_12	15.1757*	0***	0.6646	1.9437
	**			
Miscellaneous_services_inflation_1	2.6628	14.3358	-2.6708	0.0692
			-	
	13.8161*			
	**	0***	3.6478	38.3907
Miscellaneous_services_inflation_2		0***		
Miscellaneous_services_inflation_3	-4.657**	0.0095**	1.9086	6.7437
Miscellaneous_services_inflation_4	-0.7288	0.4825	-3.1363	0.0434
			10.3125*	
Miscellaneous_services_inflation_5	-3.7071	0.0245	**	30107.4486***
Miscellaneous_services_inflation_6	3.3047	27.2392	-1.8963	0.1501
Miscellaneous_services_inflation_7	1.6886	5.4121	-0.8811	0.4143
Miscellaneous_services_inflation_8	-0.9375	0.3916	-5.4789**	0.0042**
Miscellaneous_services_inflation_9	-5.168**	0.0057**	-5.5544**	0.0039**
			-	
	20.1947*			
	**	0***	9.2771***	10690.0822***
Miscellaneous_services_inflation_10				
	-			
	12.9458*		13.1805*	
	**	0***	**	529930***
Miscellaneous_services_inflation_11				
Miscellaneous_services_inflation_12	0.9362	2.5502	3.8777*	48.3153*
Food/Non_alcoholic_expenditure	-3.724***	0.0241***	0.2614	1.2988
			-	
Alcoholic_expenditure	2.3422***	0.0961***	-0.0301	0.9703
Energy_expenditure	0.6595***	1.9338***	0.6022***	1.8262***
Non_energy_goods_expenditure	-0.9792	0.3756	4.7561***	116.2868***
			-	
Housing_services_expenditure	3.3182***	0.0362***	1.3985***	4.0489***
Transport/travel_services_expenditur e	9.1921***	9819.0932**	3.8979***	49.2981***
		*		
	-		-	
Communication_expenditure	2.4034***	0.0904***	1.3291***	0.2647***
Recreational/personal_services_expe nditure	-0.509	0.6011	-	0.0165***
			4.1039***	
			-	
Miscellaneous_services_expenditure	0.3609	1.4346	1.2927***	0.2745***

Food and non-alcoholic beverages		
with sales	full sample	
	coef	H.R.
SE	0.0216***	1.0219***
SW	-0.0074*	0.9927*
East_Anglia	-0.0428***	0.9581***
East_Midlands	-0.0086*	0.9914*
West_Midlands	0.0118***	1.0119***
Yorks_Humber	-0.0101**	0.9899**
NW	0.0021	1.0021
North	-0.0338***	0.9667***
Wales	-0.0492***	0.952***
Scotland	0.0043	1.0044
NI	0.0086	1.0087
FEB	-0.0149	0.9852
MAR	0.0347***	1.0354***
APR	-0.0036	0.9964
MAY	0.0034	1.0034
JUN	0.0007	1.0007
JUL	-0.0061	0.9939
AUG	0.0007	1.0007
SEP	0.0147	1.0148
OCT	-0.0253**	0.975**
NOV	0.0337***	1.0343***
DEC	-0.0041	0.9959
wage	0.9093***	2.4825***
independent	-0.1006***	0.9043***
tax	-0.6645***	0.5145***
NX	-0.0428***	0.9581***
nine_ending	0.0119***	1.0119***
zero_ending	0.0136***	1.0137***
sales	0.4136***	1.5123***
market_share	0.8452***	2.3285***
increase_increase	-0.2494***	0.7793***
increase_decrease	-0.0421***	0.9588***
decrease_decrease	-0.0231***	0.9772***
oil	0.2205***	1.2467***
oil_1	0.0029***	1.0029***
oil_2	0.0027***	1.0027***
oil_3	0.0017***	1.0017***
oil_4	0.002***	1.002***
oil_5	0.0007***	1.0007***
oil_6	-0.0004*	0.9996*

oil_7	0.0004*	1.0004*
oil_8	-0.0001	0.9999
oil_9	-0.0009***	0.9991***
oil_10	-0.0016***	0.9985***
oil_11	-0.0021***	0.9979***
oil_12	-0.0009***	0.9991***
inflation_1	-2.108***	0.1215***
inflation_2	1.3478*	3.8488*
inflation_3	2.2277***	9.2788***
inflation_4	1.6461**	5.1868**
inflation_5	1.5066*	4.5112*
inflation_6	-1.0405	0.3533
inflation_7	0.9049	2.4716
inflation_8	1.567**	4.7923**
inflation_9	4.1366***	62.5876***
inflation_10	2.9745***	19.5807***
inflation_11	2.7163***	15.124***
inflation_12	1.397*	4.0432*
R	-0.2959***	0.7438***
R_1	-0.0017***	0.9983***
R_2	-0.0009***	0.9991***
R_3	-0.0038***	0.9962***
R_4	-0.0022***	0.9978***
R_5	-0.0016***	0.9984***
R_6	0.0003	1.0003
R_7	-0.002***	0.998***
R_8	0.0021***	1.0021***
R_9	0.0001	1.0001
R_10	0.0008***	1.0008***
R_11	0.0011***	1.0011***
R_12	0.0004**	1.0004**
Food/Non_alcoholic_inflation_1	1.2188***	3.3831***
Food/Non_alcoholic_inflation_2	2.4275***	11.3303***
Food/Non_alcoholic_inflation_3	0.0669	1.0692
Food/Non_alcoholic_inflation_4	1.0943***	2.987***
Food/Non_alcoholic_inflation_5	2.4053***	11.0813***
Food/Non_alcoholic_inflation_6	2.4187***	11.2307***
Food/Non_alcoholic_inflation_7	1.1996***	3.3187***
Food/Non_alcoholic_inflation_8	-0.019	0.9812
Food/Non_alcoholic_inflation_9	-1.8919***	0.1508***
Food/Non_alcoholic_inflation_10	-0.012	0.9881
Food/Non_alcoholic_inflation_11	0.0477	1.0489
Food/Non_alcoholic_inflation_12	-1.2236***	0.2942***

Alcoholic_inflation_1	-1.2886***	0.2757***
Alcoholic_inflation_2	-2.4207***	0.0889***
Alcoholic_inflation_3	-1.8926***	0.1507***
Alcoholic_inflation_4	-1.6949***	0.1836***
Alcoholic_inflation_5	-0.6581***	0.5178***
Alcoholic_inflation_6	-0.3951*	0.6736*
Alcoholic_inflation_7	-0.0317	0.9688
Alcoholic_inflation_8	0.0804	1.0837
Alcoholic_inflation_9	-0.7099***	0.4917***
Alcoholic_inflation_10	-0.2594	0.7715
Alcoholic_inflation_11	0.4622**	1.5876**
Alcoholic_inflation_12	-0.4065**	0.666**
Energy_inflation_1	0.0141	1.0142
Energy_inflation_2	-0.6947***	0.4992***
Energy_inflation_3	-0.5392***	0.5832***
Energy_inflation_4	-0.2629***	0.7688***
Energy_inflation_5	-0.3948***	0.6738***
Energy_inflation_6	-0.1784*	0.8366*
Energy_inflation_7	0.3843***	1.4686***
Energy_inflation_8	-0.4517***	0.6366***
Energy_inflation_9	-0.0301	0.9704
Energy_inflation_10	1.1065***	3.0237***
Energy_inflation_11	0.8701***	2.3872***
Energy_inflation_12	0.268**	1.3073**
Non_energy_goods_inflation_1	0.2736	1.3146
Non_energy_goods_inflation_2	-0.5783**	0.5608**
Non_energy_goods_inflation_3	-0.2229	0.8002
Non_energy_goods_inflation_4	-0.0674	0.9348
Non_energy_goods_inflation_5	0.28	1.3231
Non_energy_goods_inflation_6	-0.5216**	0.5936**
Non_energy_goods_inflation_7	-0.1084	0.8973
Non_energy_goods_inflation_8	-0.8544***	0.4255***
Non_energy_goods_inflation_9	0.1148	1.1216
Non_energy_goods_inflation_10	-1.1088***	0.3299***
Non_energy_goods_inflation_11	-0.3092	0.734
Non_energy_goods_inflation_12	-0.1152	0.8912
Housing_services_inflation_1	0.1902	1.2094
Housing_services_inflation_2	-4.7893***	0.0083***
Housing_services_inflation_3	-4.0242***	0.0179***
Housing_services_inflation_4	0.3222	1.3801
Housing_services_inflation_5	3.833***	46.1993***
Housing_services_inflation_6	0.9728*	2.6454*
Housing_services_inflation_7	-1.6467***	0.1927***

Housing_services_inflation_8	-1.888***	0.1514***
Housing_services_inflation_9	-1.5514***	0.212***
Housing_services_inflation_10	-2.1413***	0.1175***
Housing_services_inflation_11	1.3227**	3.7537**
Housing_services_inflation_12	0.3304	1.3915
Transport/travel_services_inflation_1	0.7188***	2.052***
Transport/travel_services_inflation_2	1.8758***	6.5258***
Transport/travel_services_inflation_3	1.7631***	5.8306***
Transport/travel_services_inflation_4	2.327***	10.2472***
Transport/travel_services_inflation_5	2.943***	18.9727***
Transport/travel_services_inflation_6	2.4347***	11.4121***
Transport/travel_services_inflation_7	1.2341***	3.4353***
Transport/travel_services_inflation_8	2.0247***	7.5736***
Transport/travel_services_inflation_9	1.8145***	6.1382***
Transport/travel_services_inflation_10	1.9419***	6.9719***
Transport/travel_services_inflation_11	1.2185***	3.3822***
Transport/travel_services_inflation_12	1.3773***	3.9643***
Communication_inflation_1	1.4374***	4.2096***
Communication_inflation_2	-0.5057**	0.6031**
Communication_inflation_3	0.4779**	1.6126**
Communication_inflation_4	1.2621***	3.533***
Communication_inflation_5	1.7125***	5.5428***
Communication_inflation_6	-0.2312	0.7936
Communication_inflation_7	0.7103***	2.0345***
Communication_inflation_8	-0.1755	0.839
Communication_inflation_9	1.3773***	3.964***
Communication_inflation_10	-0.0072	0.9928
Communication_inflation_11	0.0177	1.0179
Communication_inflation_12	-0.2359	0.7899
Recreational/personal_services_inflation_1	8.7468***	6290.3309***
Recreational/personal_services_inflation_2	12.7157***	332930***
Recreational/personal_services_inflation_3	8.8625***	7061.7809***
Recreational/personal_services_inflation_4	10.8487***	51469.3121***
Recreational/personal_services_inflation_5	13.4881***	720820***
Recreational/personal_services_inflation_6	9.5266***	13720.2584***
Recreational/personal_services_inflation_7	6.5655***	710.1599***
Recreational/personal_services_inflation_8	14.7542***	2556600***
Recreational/personal_services_inflation_9	11.1663***	70709.7102***
Recreational/personal_services_inflation_10	9.4555***	12777.6432***
Recreational/personal_services_inflation_11	11.7747***	129920***
Recreational/personal_services_inflation_12	4.8204***	124.0094***
Miscellaneous_services_inflation_1	2.7412***	15.5048***
Miscellaneous_services_inflation_2	1.8339***	6.2582***

Miscellaneous_services_inflation_3	-3.0256***	0.0485***
Miscellaneous_services_inflation_4	-0.72	0.4867
Miscellaneous_services_inflation_5	-1.5233***	0.218***
Miscellaneous_services_inflation_6	0.0733	1.076
Miscellaneous_services_inflation_7	-3.0859***	0.0457***
Miscellaneous_services_inflation_8	-8.5956***	0.0002***
Miscellaneous_services_inflation_9	-7.8305***	0.0004***
Miscellaneous_services_inflation_10	-9.2503***	0.0001***
Miscellaneous_services_inflation_11	-8.5686***	0.0002***
Miscellaneous_services_inflation_12	-4.7744***	0.0084***
Food/Non_alcoholic_expenditure	0.0912**	1.0955**
Alcoholic_expenditure	0.1304***	1.1393***
Energy_expenditure	-0.0567***	0.9449***
Non_energy_goods_expenditure	-0.108**	0.8976**
Housing_services_expenditure	0.2792***	1.3221***
Transport/travel_services_expenditure	0.0574	1.0591
Communication_expenditure	-0.1265***	0.8812***
Recreational/personal_services_expenditure	-0.0613	0.9405
Miscellaneous_services_expenditure	-0.264***	0.768***

Food and non-alcoholic beverages Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0415***	1.0423***	0.0143***	1.0144***
SW	-0.0083	0.9917	-0.0011	0.9989
East_Anglia	-0.0418***	0.959***	-0.0358***	0.9649***
East_Midlands	0.0025	1.0025	-0.0152**	0.985**
West_Midlands	0.036***	1.0366***	-0.0137**	0.9864**
Yorks_Humber	-0.0028	0.9972	-0.0184***	0.9818***
NW	0.0047	1.0047	0.0029	1.0029
North	-0.0182**	0.982**	-0.0474***	0.9538***
Wales	-0.0571***	0.9445***	-0.0449***	0.9561***
Scotland	0.0122*	1.0123*	-0.0028	0.9973
NI	0.0629***	1.0649***	-0.0256***	0.9748***
FEB	-0.026	0.9743	-0.0034	0.9967
MAR	0.0697***	1.0722***	-0.0037	0.9963
APR	-0.0137	0.9864	0.0023	1.0023
MAY	0.0112	1.0113	-0.0031	0.9969
JUN	0.0139	1.014	0.0353**	1.0359**
JUL	-0.0222	0.9781	0.0326**	1.0332**
AUG	-0.004	0.996	-0.0042	0.9958

SEP	-0.0407**	0.9602**	0.0214	1.0216
OCT	-0.0369**	0.9638**	-0.0419***	0.959***
NOV	0.0227	1.023	0.0131	1.0132
DEC	0.0153	1.0154	-0.0259*	0.9744*
wage	-0.0542***	0.1282***	0.0414***	1.0423***
independent	-0.1621***	0.8504***	-0.0831***	0.9203***
tax	-1.6167***	0.1986***	-0.8146***	0.4428***
NX	0.0016	1.0016	-0.2332***	0.792***
nine_ending	0.0923***	1.0967***	-0.0437***	0.9572***
zero_ending	0.0404***	1.0412***	-0.0003	0.9997
sales	0.3168***	1.3727***	0.4435***	1.5582***
market_share	1.6073***	4.9894***	0.493***	1.6373***
increase_increase	-0.2151***	0.8065***	-0.2513***	0.7778***
increase_decrease	-0.0367***	0.964***	-0.0578***	0.9438***
decrease_decrease	-0.0069	0.9932	-0.053***	0.9484***
oil	0.0838**	1.0874**	0.1275***	1.136***
oil_1	0.0008**	1.0008**	0.0018***	1.0018***
oil_2	-0.0007*	0.9993*	0.0015***	1.0015***
oil_3	-0.0009**	0.9991**	0.0018***	1.0018***
oil_4	-0.001***	0.999***	0.0018***	1.0018***
oil_5	-0.0017***	0.9983***	0.0018***	1.0018***
oil_6	-0.0024***	0.9976***	0.0022***	1.0022***
oil_7	-0.002***	0.998***	0.0011***	1.0011***
oil_8	-0.0016***	0.9984***	-0.0008**	0.9992**
oil_9	-0.0002	0.9998	-0.0014***	0.9986***
oil_10	-0.0006	0.9994	-0.0007**	0.9993**
oil_11	-0.0016***	0.9984***	0	1
oil_12	-0.0006	0.9994	-0.0002	0.9998
inflation_1	0.0089	1.009	-3.8151***	0.022***
inflation_2	0.4687	1.5979	-0.4546	0.6347
inflation_3	4.0077***	55.0182***	-3.2998***	0.0369***
inflation_4	7.301***	1481.7349**	-2.9888***	0.0503***
inflation_5	8.0653***	3182.2156**	-2.7169**	0.0661**
inflation_6	9.3998***	12086.3413*	-3.8872***	0.0205***
inflation_7	10.1906**	26652.605**	-0.136	0.8728
inflation_8	8.0915***	3266.6693**	-0.5561	0.5735
inflation_9	9.3677***	11704.0361*	2.3502**	10.4878**
inflation_10	5.9261***	374.6945***	0.5976	1.8177

inflation_11	7.7934***	2424.587***	1.1905	3.2887
inflation_12	2.5452*	12.7462*	1.4237	4.1525
R	0.147	1.1583	-0.2731***	0.761***
R_1	0.0052***	1.0052***	-0.0021***	0.9979***
R_2	0.0058***	1.0058***	-0.0017***	0.9983***
R_3	0.0004	1.0004	-0.0031***	0.9969***
R_4	-0.0028***	0.9972***	-0.0021***	0.9979***
R_5	-0.0042***	0.9958***	-0.0009***	0.9991***
R_6	0.0032***	1.0032***	0.0007**	1.0007**
R_7	0.0017*	1.0017*	-0.0016***	0.9984***
R_8	0.0036***	1.0036***	0.0034***	1.0034***
R_9	0.0002	1.0002	0.0013***	1.0013***
R_10	0.0056***	1.0056***	0.0022***	1.0022***
R_11	0.0081***	1.0081***	0.0012***	1.0012***
R_12	0.0066***	1.0067***	0.0005	1.0005
Food/Non_alcoholic_inflation_1	-1.2031**	0.3003**	2.3178***	10.1538***
Food/Non_alcoholic_inflation_2	0.6878	1.9893	1.5814***	4.8617***
Food/Non_alcoholic_inflation_3	-1.2462**	0.2876**	2.6037***	13.5139***
Food/Non_alcoholic_inflation_4	-0.9085*	0.4031*	1.5011***	4.4865***
Food/Non_alcoholic_inflation_5	1.3753***	3.9562***	1.9462***	7.0019***
Food/Non_alcoholic_inflation_6	1.2055**	3.3385**	0.7394	2.0947
Food/Non_alcoholic_inflation_7	2.4803***	11.9451***	-0.5729	0.5639
Food/Non_alcoholic_inflation_8	-1.0443**	0.352**	1.0021**	2.724**
Food/Non_alcoholic_inflation_9	-0.6979	0.4976	-0.029	0.9714
Food/Non_alcoholic_inflation_10	1.3592***	3.8932***	-0.2358	0.79
Food/Non_alcoholic_inflation_11	0.793*	2.21*	-0.6059	0.5456
Food/Non_alcoholic_inflation_12	1.1527**	3.1666**	-3.1164***	0.0443***
Alcoholic_inflation_1	1.9719***	7.1844***	-2.0027***	0.135***
Alcoholic_inflation_2	-2.8608***	0.0572***	-3.0317***	0.0482***
Alcoholic_inflation_3	-1.6231***	0.1973***	-2.963***	0.0517***
Alcoholic_inflation_4	1.9176***	6.8045***	-3.1646***	0.0422***
Alcoholic_inflation_5	2.3407***	10.388***	-1.8105***	0.1636***
Alcoholic_inflation_6	2.0155***	7.5046***	-1.9064***	0.1486***
Alcoholic_inflation_7	0.0042	1.0042	-0.5044*	0.6039*
Alcoholic_inflation_8	-0.5003	0.6064	-1.2034***	0.3002***
Alcoholic_inflation_9	-0.1447	0.8653	-0.7078**	0.4927**
Alcoholic_inflation_10	0.9144	2.4953	-0.9137***	0.401***
Alcoholic_inflation_11	0.3132	1.3678	-0.67**	0.5117**
Alcoholic_inflation_12	-3.6937***	0.0249***	-0.6299**	0.5327**
Energy_inflation_1	-0.1636	0.8491	0.194	1.2141
Energy_inflation_2	-0.9636***	0.3815***	0.3931**	1.4816**
Energy_inflation_3	-1.713***	0.1803***	0.2111	1.235
Energy_inflation_4	0.3321*	1.3938*	0.0158	1.0159

Energy_inflation_5	-0.2477	0.7806	-0.0533	0.9481
Energy_inflation_6	0.1622	1.1761	-0.6485***	0.5228***
Energy_inflation_7	0.8906***	2.4367***	0.0833	1.0869
Energy_inflation_8	-0.5471***	0.5787***	-0.0627	0.9393
Energy_inflation_9	-0.7946***	0.4517***	0.2202	1.2463
Energy_inflation_10	1.771***	5.8765***	0.8213***	2.2736***
Energy_inflation_11	2.2499***	9.487***	0.982***	2.6697***
Energy_inflation_12	1.1485***	3.1533***	0.7309***	2.0769***
Non_energy_goods_inflation_1	1.3985***	4.0491***	-0.9459***	0.3883***
Non_energy_goods_inflation_2	0.7051**	2.024**	-1.5133***	0.2202***
Non_energy_goods_inflation_3	1.2483***	3.4844***	-0.6063*	0.5454*
Non_energy_goods_inflation_4	1.1242***	3.0778***	-2.2924***	0.101***
Non_energy_goods_inflation_5	0.1048	1.1105	-1.899***	0.1497***
Non_energy_goods_inflation_6	0.3768	1.4576	-2.7763***	0.0623***
Non_energy_goods_inflation_7	0.4984	1.6461	-1.0362***	0.3548***
Non_energy_goods_inflation_8	-0.173	0.8411	-0.9885***	0.3721***
Non_energy_goods_inflation_9	1.3109***	3.7094***	-0.531	0.588
Non_energy_goods_inflation_10	0.776**	2.1727**	-2.258***	0.1046***
Non_energy_goods_inflation_11	0.7292*	2.0734*	-1.4525***	0.234***
Non_energy_goods_inflation_12	0.2361	1.2663	-1.0856***	0.3377***
Housing_services_inflation_1	-6.1445***	0.0021***	3.3914**	29.7071**
	-			
	13.7847**			
Housing_services_inflation_2	*	0***	5.2346***	187.6472***
Housing_services_inflation_3	-7.1718***	0.0008***	8.4308***	4586.221***
				7466.9206**
Housing_services_inflation_4	-3.9348***	0.0195***	8.9182***	*
Housing_services_inflation_5	-2.6141***	0.0732***	2.4568*	11.6675*
Housing_services_inflation_6	-3.5682***	0.0282***	-4.088***	0.0168***
Housing_services_inflation_7	-5.8962***	0.0027***	-1.6208	0.1977
Housing_services_inflation_8	-1.6083	0.2002	1.3609	3.8999
Housing_services_inflation_9	-1.2258	0.2935	-7.6361***	0.0005***
Housing_services_inflation_10	-2.7876***	0.0616***	-3.3012**	0.0368**
				16892.9102*
Housing_services_inflation_11	-2.5119**	0.0811**	9.7346***	**
Housing_services_inflation_12	-3.2851***	0.0374***	0.6833	1.9804
Transport/travel_services_inflation_1	-0.3209	0.7255	0.8748***	2.3985***
Transport/travel_services_inflation_2	1.674***	5.3333***	1.2829***	3.607***
Transport/travel_services_inflation_3	0.9469**	2.5778**	0.496*	1.6422*
Transport/travel_services_inflation_4	1.3637***	3.9107***	2.2787***	9.7644***
Transport/travel_services_inflation_5	0.1232	1.1311	1.5804***	4.8568***
Transport/travel_services_inflation_6	2.0056***	7.4303***	1.7958***	6.0244***
Transport/travel_services_inflation_7	0.4486	1.5661	0.5488*	1.7312*
Transport/travel_services_inflation_8	1.0831***	2.9537***	0.7401***	2.096***

Transport/travel_services_inflation_9	0.1328	1.142	0.9925***	2.6979***
Transport/travel_services_inflation_10	0.4664	1.5942	1.0042***	2.7298***
Transport/travel_services_inflation_11	-0.5433	0.5808	1.5129***	4.54***
Transport/travel_services_inflation_12	0.9205**	2.5106**	2.1754***	8.8059***
Communication_inflation_1	-1.8902***	0.151***	3.4619***	31.8773***
Communication_inflation_2	-3.2678***	0.0381***	1.2409***	3.4588***
Communication_inflation_3	-1.1037**	0.3316**	1.1585***	3.1853***
Communication_inflation_4	0.2681	1.3075	3.0212***	20.5163***
Communication_inflation_5	-2.3141***	0.0989***	4.9898***	146.9063***
Communication_inflation_6	-2.1493***	0.1166***	4.7489***	115.4583***
Communication_inflation_7	-0.2939	0.7453	6.4674***	643.7857***
Communication_inflation_8	-3.5093***	0.0299***	2.7241***	15.2428***
Communication_inflation_9	0.2874	1.3329	4.044***	57.0559***
Communication_inflation_10	-0.0712	0.9312	1.8022***	6.0629***
Communication_inflation_11	2.2872***	9.8477***	0.898**	2.4548**
Communication_inflation_12	0.0753	1.0782	2.7121***	15.0608***
Recreational/personal_services_inflation_1	-2.6513	0.0706	12.3272**	225760***
Recreational/personal_services_inflation_2	5.6598***	287.0817***	16.7965**	19707000***
Recreational/personal_services_inflation_3	2.5701	13.0669	10.5738**	39097.2611**
Recreational/personal_services_inflation_4	10.19***	26634.4982*	12.7803**	355130***
Recreational/personal_services_inflation_5	15.6959**	6555800***	16.2114**	10978000***
Recreational/personal_services_inflation_6	7.2521***	1410.9963**	17.8974**	59255000***
Recreational/personal_services_inflation_7	12.6452**	310260***	4.2703***	71.544***
Recreational/personal_services_inflation_8	10.6853**	43708.1288*	19.2675**	233210000**
Recreational/personal_services_inflation_9	8.8587***	7035.0945**	13.889***	1076300***
Recreational/personal_services_inflation_10	4.7312***	113.4368***	14.7933**	2658500***
Recreational/personal_services_inflation_11	-2.8986*	0.0551*	20.0357**	502780000**
Recreational/personal_services_inflation_12	-3.7581**	0.0233**	12.9611**	425530***
Miscellaneous_services_inflation_1	-4.4287***	0.0119***	7.2499***	1407.9309**
Miscellaneous_services_inflation_2	-3.9753***	0.0188***	7.5061***	1819.0371**
Miscellaneous_services_inflation_3	-6.0698***	0.0023***	2.9938***	19.9617***
Miscellaneous_services_inflation_4	-4.2906***	0.0137***	-0.3603	0.6975

Miscellaneous_services_inflation_5	-0.0285	0.9719	-2.412**	0.0896**
Miscellaneous_services_inflation_6	0.1169	1.124	1.314	3.7209
Miscellaneous_services_inflation_7	-3.3326***	0.0357***	-5.8694***	0.0028***
			-	
			10.7003**	
Miscellaneous_services_inflation_8	-6.0909***	0.0023***	*	0***
Miscellaneous_services_inflation_9	-6.0972***	0.0022***	-6.286***	0.0019***
Miscellaneous_services_inflation_10	-9.4186***	0.0001***	-5.5673***	0.0038***
Miscellaneous_services_inflation_11	-9.0663***	0.0001***	-9.3981***	0.0001***
Miscellaneous_services_inflation_12	-2.5771***	0.076***	-8.078***	0.0003***
Food/Non_alcoholic_expenditure	0.0262	1.0265	0.001	1.001
Alcoholic_expenditure	0.4129*	1.5112*	0.0362	1.0369
Energy_expenditure	-0.0854**	0.9182**	-0.0161	0.984
Non_energy_goods_expenditure	0.2508	1.2851	-0.0693	0.9331
Housing_services_expenditure	2.0794***	7.9999***	0.0804*	1.0837*
Transport/travel_services_expenditure	0.3872***	1.4728***	0.0151	1.0152
Communication_expenditure	-0.9533***	0.3855***	-0.0137	0.9864
Recreational/personal_services_expenditure	-0.6484***	0.5229***	-0.0208	0.9794
Miscellaneous_services_expenditure	1.2893***	3.6301***	-0.1906***	0.8265***

Food and non-alcoholic beverages Pre- and Post-crisis		
without sales	full sample	
	coef	H.R.
SE	0.0274***	1.0278***
SW	-0.0165***	0.9836***
East_Anglia	-0.0477***	0.9534***
East_Midlands	-0.0184***	0.9817***
West_Midlands	0.0132***	1.0133***
Yorks_Humber	-0.0043	0.9957
NW	0.0054	1.0055
North	-0.0419***	0.959***
Wales	-0.0633***	0.9387***
Scotland	0.0097**	1.0098**
NI	-0.0019	0.9981
FEB	0.011	1.0111
MAR	0.0425***	1.0434***
APR	0.0002	1.0002
MAY	0.0174*	1.0176*
JUN	-0.0144	0.9857
JUL	-0.0064	0.9936
AUG	-0.0072	0.9928

SEP	-0.0287***	0.9717***
OCT	-0.0606***	0.9412***
NOV	0.0422***	1.0431***
DEC	0.0252**	1.0255**
wage	2.2385***	9.3789***
independent	-0.1769***	0.8379***
tax	-0.6446***	0.5249***
NX	-0.0708***	0.9316***
nine_ending	-0.0016	0.9984
zero_ending	-0.0405***	0.9603***
market_share	0.4213***	1.524***
increase_increase	-0.2713***	0.7624***
increase_decrease	-0.0473***	0.9538***
decrease_decrease	-0.003	0.9971
oil	0.2206***	1.2468***
oil_1	0.0025***	1.0025***
oil_2	0.0025***	1.0025***
oil_3	0.0019***	1.0019***
oil_4	0.0023***	1.0023***
oil_5	0.0014***	1.0014***
oil_6	-0.0005**	0.9995**
oil_7	0.0011***	1.0011***
oil_8	0.0004	1.0004
oil_9	-0.0005**	0.9995**
oil_10	-0.001***	0.999***
oil_11	-0.0021***	0.9979***
oil_12	-0.0007***	0.9993***
inflation_1	-2.1675***	0.1145***
inflation_2	1.3663	3.9209
inflation_3	4.2732***	71.7473***
inflation_4	1.8156**	6.1446**
inflation_5	2.3922***	10.9377***
inflation_6	-0.7809	0.458
inflation_7	-0.0441	0.9568
inflation_8	1.3955	4.0368
inflation_9	3.0692***	21.5246***
inflation_10	3.2004***	24.5429***
inflation_11	1.8057**	6.0842**
inflation_12	-0.2038	0.8156
R	-0.3095***	0.7338***
R_1	-0.0008***	0.9992***
R_2	-0.0008***	0.9992***
R_3	-0.0041***	0.9959***

R_4	-0.0017***	0.9984***
R_5	-0.0017***	0.9983***
R_6	-0.0007**	0.9993**
R_7	-0.0007**	0.9993**
R_8	0.0017***	1.0017***
R_9	-0.0002	0.9998
R_10	0.0011***	1.0011***
R_11	0.0004	1.0004
R_12	0.0012***	1.0012***
Food/Non_alcoholic_inflation_1	1.1836***	3.2662***
Food/Non_alcoholic_inflation_2	2.2643***	9.6241***
Food/Non_alcoholic_inflation_3	-1.2504***	0.2864***
Food/Non_alcoholic_inflation_4	1.1384***	3.1219***
Food/Non_alcoholic_inflation_5	2.6081***	13.5728***
Food/Non_alcoholic_inflation_6	1.2412***	3.4598***
Food/Non_alcoholic_inflation_7	1.4129***	4.1079***
Food/Non_alcoholic_inflation_8	-0.0213	0.9789
Food/Non_alcoholic_inflation_9	-1.8335***	0.1599***
Food/Non_alcoholic_inflation_10	0.2184	1.2441
Food/Non_alcoholic_inflation_11	0.018	1.0182
Food/Non_alcoholic_inflation_12	-0.3075	0.7353
Alcoholic_inflation_1	-1.1545***	0.3152***
Alcoholic_inflation_2	-1.9155***	0.1473***
Alcoholic_inflation_3	-1.6347***	0.195***
Alcoholic_inflation_4	-0.9768***	0.3765***
Alcoholic_inflation_5	-0.2039	0.8156
Alcoholic_inflation_6	-0.4963**	0.6088**
Alcoholic_inflation_7	-0.7181***	0.4877***
Alcoholic_inflation_8	0.1364	1.1461
Alcoholic_inflation_9	-1.0909***	0.3359***
Alcoholic_inflation_10	-1.1722***	0.3097***
Alcoholic_inflation_11	-0.1119	0.8941
Alcoholic_inflation_12	-0.815***	0.4426***
Energy_inflation_1	0.327***	1.3868***
Energy_inflation_2	-0.5639***	0.569***
Energy_inflation_3	-0.6015***	0.548***
Energy_inflation_4	-0.1282	0.8796
Energy_inflation_5	-0.4126***	0.662***
Energy_inflation_6	0.0557	1.0573
Energy_inflation_7	0.3583***	1.4309***
Energy_inflation_8	-0.3355***	0.715***
Energy_inflation_9	-0.1243	0.8831
Energy_inflation_10	1.0743***	2.9278***

Energy_inflation_11	1.08***	2.9448***
Energy_inflation_12	0.1502	1.162
Non_energy_goods_inflation_1	0.1964	1.217
Non_energy_goods_inflation_2	-0.0311	0.9694
Non_energy_goods_inflation_3	-0.2506	0.7784
Non_energy_goods_inflation_4	-0.1254	0.8821
Non_energy_goods_inflation_5	0.503**	1.6537**
Non_energy_goods_inflation_6	0.0857	1.0895
Non_energy_goods_inflation_7	0.2427	1.2747
Non_energy_goods_inflation_8	-0.656***	0.5189***
Non_energy_goods_inflation_9	0.1462	1.1574
Non_energy_goods_inflation_10	-0.4953**	0.6094**
Non_energy_goods_inflation_11	-0.1518	0.8592
Non_energy_goods_inflation_12	-0.0848	0.9187
Housing_services_inflation_1	2.2738***	9.7163***
Housing_services_inflation_2	-2.0666***	0.1266***
Housing_services_inflation_3	-1.5419***	0.214***
Housing_services_inflation_4	2.6031***	13.5053***
Housing_services_inflation_5	6.6681***	786.9057***
Housing_services_inflation_6	4.1105***	60.9769***
Housing_services_inflation_7	1.3098**	3.7056**
Housing_services_inflation_8	0.8776	2.4051
Housing_services_inflation_9	1.0551*	2.8722*
Housing_services_inflation_10	0.6944	2.0026
Housing_services_inflation_11	3.794***	44.4348***
Housing_services_inflation_12	3.788***	44.1685***
Transport/travel_services_inflation_1	0.6646***	1.9437***
Transport/travel_services_inflation_2	1.4559***	4.2883***
Transport/travel_services_inflation_3	1.3511***	3.8617***
Transport/travel_services_inflation_4	1.3741***	3.9514***
Transport/travel_services_inflation_5	2.0385***	7.6792***
Transport/travel_services_inflation_6	1.8474***	6.3432***
Transport/travel_services_inflation_7	0.491**	1.6339**
Transport/travel_services_inflation_8	1.935***	6.924***
Transport/travel_services_inflation_9	1.8424***	6.3119***
Transport/travel_services_inflation_10	1.5243***	4.5918***
Transport/travel_services_inflation_11	0.5968***	1.8164***
Transport/travel_services_inflation_12	1.2497***	3.4892***
Communication_inflation_1	2.0532***	7.7929***
Communication_inflation_2	-0.68***	0.5066***
Communication_inflation_3	1.2508***	3.4931***
Communication_inflation_4	1.7638***	5.8347***
Communication_inflation_5	1.9402***	6.9599***

Communication_inflation_6	1.164***	3.2028***
Communication_inflation_7	1.3929***	4.0265***
Communication_inflation_8	0.766***	2.1512***
Communication_inflation_9	2.2532***	9.5184***
Communication_inflation_10	0.7875***	2.198***
Communication_inflation_11	0.6544***	1.924***
Communication_inflation_12	0.3124	1.3668
Recreational/personal_services_inflation_1	4.1069***	60.7607***
Recreational/personal_services_inflation_2	9.5397***	13900.109***
Recreational/personal_services_inflation_3	7.5305***	1864.1202***
Recreational/personal_services_inflation_4	8.1419***	3435.3388***
Recreational/personal_services_inflation_5	12.5329***	277320***
Recreational/personal_services_inflation_6	3.3287***	27.9009***
Recreational/personal_services_inflation_7	3.1225***	22.7041***
Recreational/personal_services_inflation_8	9.4024***	12117.7229***
Recreational/personal_services_inflation_9	7.9457***	2823.3768***
Recreational/personal_services_inflation_10	1.701**	5.4796**
Recreational/personal_services_inflation_11	7.2937***	1471.072***
Recreational/personal_services_inflation_12	1.5068*	4.5123*
Miscellaneous_services_inflation_1	1.4305***	4.1806***
Miscellaneous_services_inflation_2	-0.2415	0.7854
Miscellaneous_services_inflation_3	-4.3571***	0.0128***
Miscellaneous_services_inflation_4	-2.0816***	0.1247***
Miscellaneous_services_inflation_5	-2.4095***	0.0899***
Miscellaneous_services_inflation_6	-1.0182**	0.3612**
Miscellaneous_services_inflation_7	-3.7762***	0.0229***
Miscellaneous_services_inflation_8	-8.0299***	0.0003***
Miscellaneous_services_inflation_9	-7.752***	0.0004***
Miscellaneous_services_inflation_10	-9.7759***	0.0001***
Miscellaneous_services_inflation_11	-7.6947***	0.0005***
Miscellaneous_services_inflation_12	-4.7647***	0.0085***
Food/Non_alcoholic_expenditure	1.7618***	5.8228***
Alcoholic_expenditure	-0.167***	0.8462***
Energy_expenditure	0.1576***	1.1707***
Non_energy_goods_expenditure	-0.3577*	0.6993*
Housing_services_expenditure	0.3928***	1.4811***
Transport/travel_services_expenditure	3.9319***	51.0061***
Communication_expenditure	-0.2636***	0.7683***
Recreational/personal_services_expenditure	-0.2322	0.7928
Miscellaneous_services_expenditure	-1.183***	0.3063***

Food and non-alcoholic beverages Pre- and Post-crisis

without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0448***	1.0459***	0.0246***	1.0249***
SW	-0.0222***	0.978***	-0.0042	0.9958
East_Anglia	-0.0499***	0.9513***	0.0344***	0.9662***
East_Midlands	-0.0026	0.9974	0.0323***	0.9682***
West_Midlands	0.0373***	1.038***	-0.0172**	0.983**
Yorks_Humber	-0.0054	0.9946	-0.0059	0.9941
NW	0.0025	1.0025	0.0111*	1.0111*
North	-0.0204**	0.9798**	0.0625***	0.9394***
Wales	-0.0555***	0.9461***	0.0679***	0.9344***
Scotland	0.0171**	1.0172**	0.004	1.004
NI	0.0608***	1.0627***	0.0367***	0.964***
FEB	-0.0599***	0.9419***	0.0231	1.0234
MAR	0.0504***	1.0516***	0.0147	1.0148
APR	-0.012	0.9881	-0.0079	0.9921
MAY	0.0297*	1.0302*	0.0095	1.0095
JUN	0.0106	1.0106	-0.013	0.9871
JUL	-0.0125	0.9876	0.0275*	1.0279*
AUG	0.0303*	1.0308*	0.0169	1.0171
SEP	-0.0031	0.9969	-0.0169	0.9832
OCT	-0.0371**	0.9636**	0.0614***	0.9405***
NOV	0.0215	1.0218	-0.0054	0.9946
DEC	-0.0067	0.9933	0.0127	1.0128
wage	-0.0823	0.921	0.9962***	2.7079***
independent	-0.2174***	0.8046***	0.1783***	0.8367***
tax	-0.1676	0.8457	0.5899***	0.5544***
NX	-0.0141***	0.986***	-0.232***	0.7929***
nine_ending	0.09***	1.0942***	0.0746***	0.9281***
zero_ending	0.039***	1.0397***	0.0647***	0.9373***
market_share	1.0728***	2.9237***	0.1989***	1.22***
increase_increase	-0.2395***	0.787***	0.2653***	0.767***
increase_decrease	-0.0474***	0.9537***	-	0.9475***

			0.0539***	
decrease_decrease	-0.0094	0.9906	-0.013**	0.9871**
oil	0.0687**	1.0711**	0.1043***	1.1099***
oil_1	-0.0004	0.9996	0.0009**	1.0009**
oil_2	-0.0009**	0.9991**	0.0018***	1.0018***
oil_3	-0.0006	0.9994	0.0013***	1.0013***
oil_4	-0.0005	0.9995	0.0021***	1.0021***
oil_5	-0.0014***	0.9986***	0.0019***	1.0019***
oil_6	-0.0025***	0.9975***	0.0015***	1.0015***
oil_7	-0.0005	0.9995	0.0016***	1.0016***
oil_8	-0.0017***	0.9983***	0.0005	1.0005
oil_9	0.0003	1.0003	-0.0006	0.9994
oil_10	-0.0005	0.9995	0.0003	1.0003
oil_11	-0.0021***	0.9979***	-0.0004	0.9996
oil_12	0.0002	1.0002	-0.0004	0.9996
inflation_1	1.1462	3.1461	-1.6324	0.1955
inflation_2	1.256	3.5112	-0.5554	0.5738
inflation_3	2.4537*	11.6316*	0.5321	1.7025
inflation_4	4.5467***	94.3187***	-1.2463	0.2876
inflation_5	5.5565***	258.908***	-2.7623**	0.0631**
			-	
inflation_6	5.5685***	262.0297***	4.4087***	0.0122***
inflation_7	5.5458***	256.1649***	-2.0848*	0.1243*
inflation_8	5.4015***	221.7496***	-1.5685	0.2084
inflation_9	6.1804***	483.1818***	0.6039	1.8292
inflation_10	3.0756**	21.6623**	0.1267	1.1351
inflation_11	2.2176	9.1856	0.0301	1.0306
inflation_12	-1.424	0.2408	-0.2467	0.7814
			-	
R	-0.2308**	0.7939**	0.2386***	0.7877***
			-	
R_1	0.0039***	1.0039***	0.0019***	0.9981***
			-	
R_2	0.0066***	1.0066***	0.0018***	0.9982***
			-	
R_3	-0.0021**	0.9979**	0.0036***	0.9964***
			-	
R_4	-0.0023**	0.9977**	0.0021***	0.9979***
R_5	-0.0062***	0.9938***	-0.0006	0.9994
R_6	0.0035***	1.0035***	-0.0007*	0.9993*
R_7	0.0045***	1.0045***	-0.0007**	0.9993**
R_8	0.0073***	1.0073***	0.0015***	1.0015***
R_9	0.001	1.001	0.0002	1.0002
R_10	0.0105***	1.0106***	0.0013***	1.0013***

R_11	0.0109***	1.0109***	0.0001	1.0001
R_12	0.0086***	1.0087***	0.001***	1.001***
Food/Non_alcoholic_inflation_1	-0.6165	0.5399	2.7327***	15.3746***
Food/Non_alcoholic_inflation_2	2.4103***	11.1377***	0.9675*	2.6314*
Food/Non_alcoholic_inflation_3	-1.6273***	0.1965***	0.4847	1.6238
Food/Non_alcoholic_inflation_4	-1.1176**	0.3271**	2.1475***	8.5637***
Food/Non_alcoholic_inflation_5	1.1146**	3.0485**	2.2097***	9.1133***
Food/Non_alcoholic_inflation_6	1.3923***	4.024***	-0.8907*	0.4104*
Food/Non_alcoholic_inflation_7	3.6005***	36.6174***	0.1042	1.1099
Food/Non_alcoholic_inflation_8	-1.5025***	0.2226***	-0.2468	0.7813
Food/Non_alcoholic_inflation_9	-3.2989***	0.0369***	0.2583	1.2947
Food/Non_alcoholic_inflation_10	-0.2988	0.7417	-0.0122	0.9879
			-	
Food/Non_alcoholic_inflation_11	-0.0391	0.9616	2.1875***	0.1122***
Food/Non_alcoholic_inflation_12	1.6642***	5.2814***	-1.781***	0.1685***
			-	
Alcoholic_inflation_1	3.4721***	32.2038***	2.1386***	0.1178***
			-	
Alcoholic_inflation_2	-1.4092**	0.2443**	2.1347***	0.1183***
			-	
Alcoholic_inflation_3	-1.5841***	0.2051***	1.7725***	0.1699***
			-	
Alcoholic_inflation_4	1.1872**	3.278**	1.9038***	0.149***
Alcoholic_inflation_5	1.5544**	4.7323**	-0.0243	0.976
			-	
Alcoholic_inflation_6	3.6995***	40.4274***	0.9924***	0.3707***
Alcoholic_inflation_7	1.471**	4.3536**	-0.6986**	0.4973**
Alcoholic_inflation_8	0.0766	1.0796	-0.0147	0.9854
Alcoholic_inflation_9	-0.4576	0.6328	-0.3304	0.7186
			-	
Alcoholic_inflation_10	0.5336	1.7051	1.2825***	0.2773***
			-	
Alcoholic_inflation_11	0.7764	2.1736	1.2433***	0.2884***
Alcoholic_inflation_12	-3.0019***	0.0497***	-0.0632	0.9388
Energy_inflation_1	0.7603***	2.1388***	0.8413***	2.3194***
Energy_inflation_2	-0.4897**	0.6128**	0.2878	1.3335
Energy_inflation_3	-0.8522***	0.4265***	-0.0566	0.945
Energy_inflation_4	0.6043***	1.83***	-0.4608**	0.6308**
Energy_inflation_5	0.4642**	1.5907**	-0.2034	0.8159
Energy_inflation_6	0.2659	1.3046	-0.1914	0.8258
Energy_inflation_7	1.6641***	5.2807***	-0.0366	0.964
Energy_inflation_8	-0.647***	0.5236***	-0.1773	0.8375
Energy_inflation_9	-1.3965***	0.2475***	0.0645	1.0666
Energy_inflation_10	1.5108***	4.5305***	0.6188***	1.8567***
Energy_inflation_11	2.0509***	7.775***	1.0339***	2.8119***

Energy_inflation_12	0.8151***	2.2595***	0.4971**	1.6439**
Non_energy_goods_inflation_1	0.6517*	1.9188*	-0.0334	0.9671
Non_energy_goods_inflation_2	0.4904	1.633	0.1606	1.1742
Non_energy_goods_inflation_3	0.9472**	2.5785**	0.4241	1.5282
			-	
Non_energy_goods_inflation_4	1.0655***	2.9023***	1.3316***	0.2641***
Non_energy_goods_inflation_5	-0.3778	0.6854	-0.6064	0.5453
			-	
Non_energy_goods_inflation_6	0.3732	1.4523	1.3508***	0.259***
Non_energy_goods_inflation_7	0.1182	1.1255	-0.6233	0.5362
			-	
Non_energy_goods_inflation_8	0.0829	1.0865	1.5282***	0.2169***
Non_energy_goods_inflation_9	0.846**	2.3303**	-0.6297	0.5327
Non_energy_goods_inflation_10	0.723*	2.0606*	-0.97**	0.3791**
Non_energy_goods_inflation_11	0.4211	1.5236	-0.3106	0.733
Non_energy_goods_inflation_12	-0.0844	0.9191	-0.8271**	0.4373**
Housing_services_inflation_1	-5.4284***	0.0044***	4.869***	130.1918***
	-			
Housing_services_inflation_2	12.2427***	0***	5.7234***	305.9294***
Housing_services_inflation_3	-6.6125***	0.0013***	3.0334*	20.7673*
				1644.7327**
Housing_services_inflation_4	-2.1519**	0.1163**	7.4053***	*
Housing_services_inflation_5	-0.0933	0.9109	5.5278***	251.5897***
Housing_services_inflation_6	0.2691	1.3087	-0.0871	0.9166
Housing_services_inflation_7	-5.8149***	0.003***	2.0899	8.084
Housing_services_inflation_8	-0.6561	0.5189	3.4317**	30.9287**
			-	
Housing_services_inflation_9	-2.475**	0.0842**	7.1891***	0.0008***
Housing_services_inflation_10	-2.2141**	0.1092**	-1.4138	0.2432
Housing_services_inflation_11	-0.5531	0.5752	7.2298***	1379.988***
Housing_services_inflation_12	-1.4001	0.2466	-1.2489	0.2868
Transport/travel_services_inflation_1	-0.478	0.62	0.6772**	1.9683**
Transport/travel_services_inflation_2	0.9301**	2.5347**	0.6655**	1.9454**
Transport/travel_services_inflation_3	2.027***	7.5911***	0.2144	1.2391
Transport/travel_services_inflation_4	1.8822***	6.5678***	1.5635***	4.7753***
Transport/travel_services_inflation_5	1.2073***	3.3443***	0.3196	1.3766
Transport/travel_services_inflation_6	0.2394	1.2705	1.0926***	2.9819***
Transport/travel_services_inflation_7	-0.2684	0.7646	-0.1881	0.8285
Transport/travel_services_inflation_8	1.3181***	3.7364***	0.7159**	2.046**
Transport/travel_services_inflation_9	1.015**	2.7594**	0.8549***	2.3511***
Transport/travel_services_inflation_10	1.2771***	3.5863***	0.6875**	1.9888**
Transport/travel_services_inflation_11	-0.1336	0.875	0.9892***	2.689***
Transport/travel_services_inflation_12	0.9199**	2.5089**	2.122***	8.3481***
Communication_inflation_1	-0.0814	0.9218	1.9487***	7.0195***

			-	
Communication_inflation_2	-1.3243***	0.266***	2.0373***	0.1304***
Communication_inflation_3	-0.6336	0.5307	0.8623**	2.3686**
Communication_inflation_4	-0.1277	0.8801	1.7075***	5.5153***
Communication_inflation_5	-2.5563***	0.0776***	3.1826***	24.1099***
Communication_inflation_6	-1.3623***	0.2561***	3.0522***	21.1615***
Communication_inflation_7	0.1708	1.1862	3.2297***	25.2731***
Communication_inflation_8	-2.8402***	0.0584***	1.2702***	3.5615***
Communication_inflation_9	1.0029**	2.7263**	2.1504***	8.5884***
Communication_inflation_10	-1.0882**	0.3368**	0.0451	1.0462
			-	
Communication_inflation_11	0.8842*	2.4211*	1.0608***	0.3462***
Communication_inflation_12	-2.2056***	0.1102***	2.6198***	13.7324***
Recreational/personal_services_inflation_1	-4.5932***	0.0101***	7.3009***	1481.6497**
Recreational/personal_services_inflation_2	2.8177	16.7386	13.5529**	*
Recreational/personal_services_inflation_3	-5.3679***	0.0047***	8.8574***	769040***
Recreational/personal_services_inflation_4	-0.8861	0.4123	11.0044**	7026.2161**
Recreational/personal_services_inflation_5	8.6122***	5498.2967**	13.4096**	*
Recreational/personal_services_inflation_6	-0.3213	0.7252	8.3628***	60139.804**
Recreational/personal_services_inflation_7	4.8768***	131.2047***	4.3392***	*
Recreational/personal_services_inflation_8	3.7785**	43.7491**	11.9376**	666350***
Recreational/personal_services_inflation_9	6.9004***	992.6735***	7.7293***	4284.5381**
Recreational/personal_services_inflation_10	0.6718	1.9577	3.302**	*
Recreational/personal_services_inflation_11	-3.9303**	0.0196**	8.5245***	27.1666**
Recreational/personal_services_inflation_12	-3.7767**	0.0229**	3.2644**	5036.837***
Miscellaneous_services_inflation_1	-2.5091***	0.0813***	4.7886***	26.1652**
Miscellaneous_services_inflation_2	-1.5764	0.2067	2.1357**	120.1383***
Miscellaneous_services_inflation_3	-6.0799***	0.0023***	2.1154**	8.4627**
Miscellaneous_services_inflation_4	-4.9062***	0.0074***	0.4345	8.293**
Miscellaneous_services_inflation_5	-0.8225	0.4393	1.0147	1.5442
Miscellaneous_services_inflation_6	2.2915**	9.8895**	6.6856***	2.7586
			-	800.7909***
Miscellaneous_services_inflation_7	-5.5712***	0.0038***	3.8823***	0.0206***
			-	
Miscellaneous_services_inflation_8	-7.0447***	0.0009***	6.4468***	0.0016***

Miscellaneous_services_inflation_9	-7.081***	0.0008***	3.0797***	0.046***
Miscellaneous_services_inflation_10	12.8893***	0***	3.9537***	0.0192***
Miscellaneous_services_inflation_11	12.9752***	0***	5.8499***	0.0029***
Miscellaneous_services_inflation_12	-8.411***	0.0002***	7.2807***	0.0007***
Food/Non_alcoholic_expenditure	-2.7684***	0.0628***	1.2811***	3.6008***
Alcoholic_expenditure	-3.0527***	0.0472***	-0.0295	0.9709
Energy_expenditure	0.7622***	2.1429***	0.561***	1.7525***
Non_energy_goods_expenditure	1.9095***	6.7496***	-0.4561	0.6337
Housing_services_expenditure	-2.6558***	0.0702***	1.9817***	7.2553***
Transport/travel_services_expenditure	5.6134***	274.0676***	3.8359***	46.3363***
Communication_expenditure	-1.8982***	0.1498***	1.2705***	0.2807***
Recreational/personal_services_expenditure	-1.0785**	0.3401**	1.4309***	0.2391***
Miscellaneous_services_expenditure	-0.0534	0.948	1.3295***	0.2646***

Energy Goods		
with sales	full sample	
	coef	H.R.
SE	0.2541***	1.2893***
SW	0.0148	1.0149
East_Anglia	-0.1133***	0.8929***
East_Midlands	0.042	1.0429
West_Midlands	-0.0019	0.9981
Yorks_Humber	-0.1756***	0.8389***
NW	-0.1459***	0.8643***
North	-0.2379***	0.7883***
Wales	-0.1355**	0.8732**
Scotland	-0.3182***	0.7274***
NI	-0.5235***	0.5925***
FEB	0.1742	1.1903
MAR	0.2436**	1.2758**
APR	0.3231***	1.3813***
MAY	-0.0107	0.9893
JUN	0.1975**	1.2184**
JUL	0.2986***	1.348***
AUG	0.2617**	1.2992**
SEP	-0.115	0.8914

OCT	-0.1032	0.902
NOV	-0.199**	0.8196**
DEC	-0.2458**	0.7821**
wage	0.2009**	1.2225**
independent	0.1758***	1.1922***
tax	-0.2103	0.8104
NX	-0.0184	0.9817
nine_ending	-0.0674	0.9348
zero_ending	-0.133***	0.8755***
sales	0.0563	1.0579
market_share	0.3389***	1.4034***
increase_increase	-0.2929***	0.7461***
increase_decrease	-0.0995***	0.9053***
decrease_decrease	0.0314	1.0319
oil	0.4858***	1.6254***
oil_1	0.0081***	1.0081***
oil_2	0.0104***	1.0104***
oil_3	0.0058***	1.0059***
oil_4	0.0025	1.0025
oil_5	0.0003	1.0003
oil_6	0.0055***	1.0055***
oil_7	0.0068***	1.0068***
oil_8	0.0006	1.0006
oil_9	0.001	1.001
oil_10	0.0028	1.0028
oil_11	0.0045**	1.0045**
oil_12	0	1
inflation_1	-11.8122	0
inflation_2	-4.1925	0.0151
inflation_3	9.8326	18631.74
inflation_4	-1.214	0.297
inflation_5	10.981	58748.68
inflation_6	3.798	44.6139
inflation_7	-9.2653	0.0001
inflation_8	8.2448	3807.898
inflation_9	-3.767	0.0231
inflation_10	0.7685	2.1566
inflation_11	4.2822	72.4024
inflation_12	2.2403	9.3962
R	-0.1746	0.8398
R_1	-0.0062**	0.9938**
R_2	-0.0031	0.9969
R_3	0.0028	1.0028

R_4	-0.0017	0.9983
R_5	0.0015	1.0015
R_6	-0.0055**	0.9945**
R_7	0.0019	1.0019
R_8	0.0093***	1.0093***
R_9	-0.0027	0.9973
R_10	0.0058**	1.0058**
R_11	-0.0028	0.9972
R_12	0.0053**	1.0054**
Food/Non_alcoholic_inflation_1	-0.7638	0.4659
Food/Non_alcoholic_inflation_2	0.1936	1.2137
Food/Non_alcoholic_inflation_3	-6.1229**	0.0022**
Food/Non_alcoholic_inflation_4	-0.8157	0.4423
Food/Non_alcoholic_inflation_5	-0.7944	0.4518
Food/Non_alcoholic_inflation_6	7.3344***	1532.1405***
Food/Non_alcoholic_inflation_7	-1.7322	0.1769
Food/Non_alcoholic_inflation_8	4.1208	61.607
Food/Non_alcoholic_inflation_9	0.9614	2.6154
Food/Non_alcoholic_inflation_10	-3.5116	0.0299
Food/Non_alcoholic_inflation_11	3.2887	26.8089
Food/Non_alcoholic_inflation_12	1.2919	3.6395
Alcoholic_inflation_1	0.9317	2.5388
Alcoholic_inflation_2	8.4168***	4522.3501***
Alcoholic_inflation_3	-0.4899	0.6127
Alcoholic_inflation_4	0.6026	1.8269
Alcoholic_inflation_5	-1.4856	0.2264
Alcoholic_inflation_6	-3.8851**	0.0205**
Alcoholic_inflation_7	1.4846	4.413
Alcoholic_inflation_8	-0.105	0.9004
Alcoholic_inflation_9	-2.7339	0.065
Alcoholic_inflation_10	-2.4513	0.0862
Alcoholic_inflation_11	-3.4035	0.0333
Alcoholic_inflation_12	-6.7942***	0.0011***
Energy_inflation_1	-0.5193	0.5949
Energy_inflation_2	-0.3748	0.6874
Energy_inflation_3	0.27	1.31
Energy_inflation_4	-1.4505	0.2345
Energy_inflation_5	-0.2091	0.8113
Energy_inflation_6	-1.6661*	0.189*
Energy_inflation_7	-2.0344**	0.1308**
Energy_inflation_8	0.57	1.7682
Energy_inflation_9	3.5298***	34.1172***
Energy_inflation_10	-0.2173	0.8047

Energy_inflation_11	-0.223	0.8001
Energy_inflation_12	-1.0697	0.3431
Non_energy_goods_inflation_1	-2.0063	0.1345
Non_energy_goods_inflation_2	-1.1012	0.3325
Non_energy_goods_inflation_3	-1.3667	0.255
Non_energy_goods_inflation_4	0.0019	1.0019
Non_energy_goods_inflation_5	3.5992*	36.5687*
Non_energy_goods_inflation_6	-0.6089	0.5439
Non_energy_goods_inflation_7	3.3802	29.3768
Non_energy_goods_inflation_8	2.5548	12.869
Non_energy_goods_inflation_9	1.7557	5.7877
Non_energy_goods_inflation_10	3.6741*	39.4148*
Non_energy_goods_inflation_11	-2.881	0.0561
Non_energy_goods_inflation_12	-2.8651	0.057
Housing_services_inflation_1	-2.1907	0.1118
Housing_services_inflation_2	13.7287**	916820**
Housing_services_inflation_3	16.9718***	23483000***
Housing_services_inflation_4	-2.7425	0.0644
Housing_services_inflation_5	0.6694	1.9531
Housing_services_inflation_6	13.1914***	535740***
Housing_services_inflation_7	6.7756	876.2411
Housing_services_inflation_8	1.9523	7.0447
Housing_services_inflation_9	3.1004	22.2064
Housing_services_inflation_10	0.7883	2.1997
Housing_services_inflation_11	18.8224***	149430000***
Housing_services_inflation_12	2.8886	17.9686
Transport/travel_services_inflation_1	1.1204	3.0662
Transport/travel_services_inflation_2	2	7.3887
Transport/travel_services_inflation_3	4.9275**	138.0382**
Transport/travel_services_inflation_4	3.3349*	28.076*
Transport/travel_services_inflation_5	4.4387**	84.665**
Transport/travel_services_inflation_6	2.6394	14.0048
Transport/travel_services_inflation_7	3.1304	22.8842
Transport/travel_services_inflation_8	-2.4928	0.0827
Transport/travel_services_inflation_9	3.4844*	32.6012*
Transport/travel_services_inflation_10	3.3472*	28.4236*
Transport/travel_services_inflation_11	2.7039	14.9372
Transport/travel_services_inflation_12	5.4291***	227.9536***
Communication_inflation_1	-2.8178	0.0597
Communication_inflation_2	-6.1053***	0.0022***
Communication_inflation_3	-2.2799	0.1023
Communication_inflation_4	-2.1366	0.1181
Communication_inflation_5	-0.945	0.3887

Communication_inflation_6	-4.2936**	0.0137**
Communication_inflation_7	0.2331	1.2625
Communication_inflation_8	-2.757	0.0635
Communication_inflation_9	-2.4334	0.0877
Communication_inflation_10	-2.4302	0.088
Communication_inflation_11	0.1329	1.1422
Communication_inflation_12	-0.6484	0.5229
Recreational/personal_services_inflation_1	-15.015**	0**
Recreational/personal_services_inflation_2	-9.6658	0.0001
Recreational/personal_services_inflation_3	15.733**	6804000**
Recreational/personal_services_inflation_4	-3.5984	0.0274
Recreational/personal_services_inflation_5	9.8583	19116.72
Recreational/personal_services_inflation_6	-5.0832	0.0062
Recreational/personal_services_inflation_7	-7.7567	0.0004
Recreational/personal_services_inflation_8	-17.0574**	0**
Recreational/personal_services_inflation_9	10.5524	38271.08
Recreational/personal_services_inflation_10	16.5498**	15399000**
Recreational/personal_services_inflation_11	39.1704***	102680000000000000***
Recreational/personal_services_inflation_12	5.7513	314.585
Miscellaneous_services_inflation_1	-4.6256	0.0098
Miscellaneous_services_inflation_2	9.7505*	17163.0171*
Miscellaneous_services_inflation_3	-1.962	0.1406
Miscellaneous_services_inflation_4	4.1005	60.3732
Miscellaneous_services_inflation_5	-3.2254	0.0397
Miscellaneous_services_inflation_6	5.16	174.1681
Miscellaneous_services_inflation_7	6.3326	562.6115
Miscellaneous_services_inflation_8	13.0035***	443970***
Miscellaneous_services_inflation_9	-3.8022	0.0223
Miscellaneous_services_inflation_10	-14.0289***	0***
Miscellaneous_services_inflation_11	-21.0078***	0***
Miscellaneous_services_inflation_12	-15.6349***	0***
Food/Non_alcoholic_expenditure	-0.6184	0.5388
Alcoholic_expenditure	0.0786	1.0818
Energy_expenditure	-0.3546**	0.7015**
Non_energy_goods_expenditure	-0.7948	0.4517
Housing_services_expenditure	0.1	1.1051
Transport/travel_services_expenditure	1.8598***	6.4227***
Communication_expenditure	0.0079	1.008
Recreational/personal_services_expenditure	0.0475	1.0486
Miscellaneous_services_expenditure	-0.5591	0.5717

Energy Goods Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.3336***	1.396***	0.229***	1.2574***
SW	0.0377	1.0384	-0.0183	0.9819
			-	
East_Anglia	-0.0216	0.9786	0.1771***	0.8377***
East_Midlands	0.1323**	1.1414**	-0.04	0.9608
West_Midlands	0.0324	1.0329	-0.0118	0.9883
			-	
Yorks_Humber	0.0202	1.0204	0.3844***	0.6808***
			-	
NW	-0.0076	0.9924	0.2751***	0.7595***
			-	
North	-0.2222**	0.8008**	0.2841***	0.7527***
Wales	-0.2006**	0.8182**	-0.1321	0.8763
			-	
Scotland	0.1901***	0.8269***	0.4513***	0.6368***
			-	
NI	0.5501***	0.5769***	0.5674***	0.567***
FEB	-0.0921	0.912	0.0956	1.1003
MAR	0.2212	1.2476	0.0666	1.0688
APR	0.0737	1.0765	0.1818	1.1994
MAY	0.0063	1.0063	0.0177	1.0178
JUN	0.2065	1.2294	0.1525	1.1648
JUL	0.3025**	1.3532**	0.1371	1.1469
AUG	0.232	1.2611	0.1575	1.1706
SEP	-0.1304	0.8778	-0.0382	0.9625
OCT	-0.0687	0.9336	-0.0872	0.9165
NOV	-0.2157	0.806	-0.173	0.8412
DEC	-0.3872**	0.679**	-0.1813	0.8342
wage	0.6793	1.9725	0.0866	1.0904
independent	0.11***	1.1163***	0.2926***	1.3399***
tax	2.5562***	12.8864***	-0.7011**	0.496**
NX	-0.005	0.995	-0.1424	0.8673
nine_ending	-0.0746	0.9282	-0.0939	0.9103
			-	
zero_ending	0.1585***	0.8535***	0.1224***	0.8848***
sales	0.1232*	1.1311*	0.2461	1.279
market_share	0.5078***	1.6616***	0.2915***	1.3384***
			-	
increase_increase	0.2788***	0.7567***	0.2716***	0.7622***
			-	
increase_decrease	0.1761***	0.8385***	-0.0048	0.9952
decrease_decrease	-0.0697	0.9326	0.1058	1.1116

oil	0.6137**	1.8472**	0.4934	1.638
oil_1	0.0077**	1.0077**	0.0054	1.0054
oil_2	0.0098***	1.0098***	0.0068*	1.0068*
oil_3	-0.0039	0.9961	0.0076**	1.0077**
oil_4	-0.0028	0.9972	0.0013	1.0013
oil_5	0.0009	1.0009	0.0001	1.0001
oil_6	0.0098***	1.0098***	0.0051	1.0051
oil_7	0.0072**	1.0073**	0.0034	1.0034
oil_8	0.0018	1.0018	-0.0041	0.996
oil_9	0.0059	1.0059	0.0008	1.0008
oil_10	0.002	1.002	0.0044	1.0044
oil_11	0.0004	1.0004	0.0063*	1.0063*
oil_12	-0.0037	0.9963	0.0017	1.0017
inflation_1	-17.3514	0	-1.04	0.3535
inflation_2	-2.7063	0.0668	-11.2293	0
inflation_3	1.3607	3.8989	15.8617	7738200
inflation_4	9.9338	20615	-2.0894	0.1238
inflation_5	2.5346	12.6108	7.193	1330.148
inflation_6	4.4765	87.9288	-6.2708	0.0019
inflation_7	-1.3592	0.2569	-7.4851	0.0006
inflation_8	4.003	54.7612	8.7695	6434.812
inflation_9	2.9666	19.4261	-1.2332	0.2914
inflation_10	11.0844	65144.31	1.9524	7.0455
inflation_11	20.3021	6.56E+08	-3.0332	0.0482
inflation_12	1.3988	4.0502	-2.8017	0.0607
R	0.2875	1.3331	-0.6011**	0.5482**
			-	
R_1	0.0218**	1.022**	0.0104***	0.9897***
R_2	-0.0021	0.9979	-0.0054	0.9946
R_3	0.0046	1.0046	-0.002	0.998
R_4	0.0039	1.0039	-0.0035	0.9965
R_5	0.0058	1.0059	0.0038	1.0039
R_6	-0.0083	0.9917	-0.0034	0.9966
R_7	0.007	1.007	0.0044	1.0044
R_8	-0.0006	0.9994	0.009**	1.009**
R_9	-0.0014	0.9986	0.0018	1.0018
R_10	0.0119	1.0119	0.0032	1.0032
R_11	-0.0015	0.9985	-0.0042	0.9958
R_12	0.0014	1.0014	0.0051*	1.0051*
Food/Non_alcoholic_inflation_1	-8.7283*	0.0002*	4.9308	138.4902
Food/Non_alcoholic_inflation_2	2.9477	19.0614	2.6974	14.8413
	-			
Food/Non_alcoholic_inflation_3	10.4249*	0**	-1.692	0.1841

	*			
Food/Non_alcoholic_inflation_4	0.6533	1.9218	1.0962	2.9928
Food/Non_alcoholic_inflation_5	-0.1879	0.8287	2.9602	19.3013
Food/Non_alcoholic_inflation_6	6.6511	773.613	4.8506	127.8186
Food/Non_alcoholic_inflation_7	0.0687	1.0711	-2.8012	0.0607
Food/Non_alcoholic_inflation_8	3.5637	35.2919	8.1023*	3302.1841*
Food/Non_alcoholic_inflation_9	-1.9292	0.1453	-2.3073	0.0995
Food/Non_alcoholic_inflation_10	-7.0532*	0.0009*	-1.01	0.3642
Food/Non_alcoholic_inflation_11	-1.5835	0.2053	-3.4434	0.032
Food/Non_alcoholic_inflation_12	4.6135	100.8325	-7.774*	0.0004*
Alcoholic_inflation_1	-2.6431	0.0711	0.3126	1.3669
	13.6396*			
Alcoholic_inflation_2	**	838730***	2.7142	15.0923
Alcoholic_inflation_3	-9.4507*	0.0001*	3.3972	29.8817
	10.3815*	32256.2416		
Alcoholic_inflation_4	*	**	-0.9673	0.3801
Alcoholic_inflation_5	3.0977	22.1467	0.0468	1.048
Alcoholic_inflation_6	3.3369	28.1312	-5.6438**	0.0035**
Alcoholic_inflation_7	6.8581	951.5355	0.2221	1.2486
Alcoholic_inflation_8	8.8221	6782.831	-1.7591	0.1722
Alcoholic_inflation_9	0.9978	2.7124	-1.0888	0.3366
	13.6374*			
Alcoholic_inflation_10	*	836830**	-2.6535	0.0704
Alcoholic_inflation_11	-1.286	0.2764	-0.6272	0.5341
Alcoholic_inflation_12	-8.4496	0.0002	-2.9349	0.0531
Energy_inflation_1	-1.526	0.2174	-0.6412	0.5267
Energy_inflation_2	1.0061	2.7348	0.8153	2.2599
Energy_inflation_3	1.904	6.7124	3.124*	22.738*
Energy_inflation_4	-2.9485	0.0524	0.803	2.2322
Energy_inflation_5	0.1733	1.1892	0.793	2.2099
Energy_inflation_6	-0.0321	0.9684	-2.16	0.1153
Energy_inflation_7	-0.1915	0.8258	-0.4462	0.6401
Energy_inflation_8	-1.2345	0.291	1.3366	3.806
Energy_inflation_9	2.4917	12.0819	1.7245	5.6097
Energy_inflation_10	-2.0432	0.1296	-1.847	0.1577
Energy_inflation_11	0.2767	1.3187	-0.7952	0.4515
Energy_inflation_12	-5.718***	0.0033***	0.6239	1.8662
Non_energy_goods_inflation_1	-0.2795	0.7562	2.5186	12.4114
Non_energy_goods_inflation_2	-0.2539	0.7758	-1.6268	0.1965
Non_energy_goods_inflation_3	-0.8788	0.4153	1.2817	3.6027
Non_energy_goods_inflation_4	3.1296	22.8657	-3.3933	0.0336
Non_energy_goods_inflation_5	1.8881	6.6066	3.0336	20.7716
Non_energy_goods_inflation_6	-1.9874	0.137	-0.1776	0.8373

Non_energy_goods_inflation_7	1.3619	3.9036	0.2174	1.2428
Non_energy_goods_inflation_8	1.8691	6.4825	0.5349	1.7072
Non_energy_goods_inflation_9	0.8188	2.2678	1.0277	2.7947
Non_energy_goods_inflation_10	3.7241	41.4336	2.6117	13.6228
Non_energy_goods_inflation_11	0.3998	1.4915	-0.5303	0.5885
Non_energy_goods_inflation_12	-0.5983	0.5497	-0.2733	0.7609
Housing_services_inflation_1	-5.5185	0.004	16.844	20665000
	-			
Housing_services_inflation_2	17.9182*	0*	-15.9208	0
Housing_services_inflation_3	-5.5683	0.0038	-14.5392	0
Housing_services_inflation_4	1.3801	3.9754	-11.1677	0
	-			
	17.1722*			
Housing_services_inflation_5	*	0**	-11.8812	0
Housing_services_inflation_6	-1.3898	0.2491	5.7763	322.5742
	-			
	19.3257*			
Housing_services_inflation_7	*	0**	25.2254*	90209000000*
Housing_services_inflation_8	-0.6172	0.5395	3.9948	54.316
Housing_services_inflation_9	-6.442	0.0016	13.3565	631930
Housing_services_inflation_10	8.8911	7266.842	-3.4587	0.0315
Housing_services_inflation_11	15.8968	8014400	3.3724	29.1488
Housing_services_inflation_12	4.2112	67.4377	8.248	3820.115
Transport/travel_services_inflation_1	2.61	13.5991	1.0555	2.8735
Transport/travel_services_inflation_2	-0.3424	0.71	1.9315	6.8997
Transport/travel_services_inflation_3	1.8771	6.5342	5.3328*	207.0236*
Transport/travel_services_inflation_4	-2.4164	0.0892	4.8039	121.9887
Transport/travel_services_inflation_5	-0.9621	0.3821	0.3933	1.4818
Transport/travel_services_inflation_6	0.5769	1.7806	0.856	2.3538
Transport/travel_services_inflation_7	-2.1608	0.1152	1.9357	6.929
Transport/travel_services_inflation_8	-7.3939**	0.0006**	0.1919	1.2115
Transport/travel_services_inflation_9	-5.723*	0.0033*	0.2187	1.2445
Transport/travel_services_inflation_10	-0.0124	0.9877	1.2478	3.4828
Transport/travel_services_inflation_11	6.1324*	460.5319*	2.6884	14.7074
Transport/travel_services_inflation_12	5.8529	348.2264	6.0702**	432.7596**
Communication_inflation_1	-4.7618	0.0086	3.1841	24.1454
			-	
			11.3458*	
Communication_inflation_2	-2.8895	0.0556	**	0***
Communication_inflation_3	-4.6361	0.0097	-6.1761	0.0021
Communication_inflation_4	-2.3067	0.0996	-2.0499	0.1287
Communication_inflation_5	4.7017	110.1314	1.8718	6.5

	-			
	21.3227*			
Communication_inflation_6	**	0***	5.5802	265.1131
Communication_inflation_7	-5.218	0.0054	5.3458	209.7164
Communication_inflation_8	-9.5716**	0.0001**	-4.3808	0.0125
Communication_inflation_9	2.9808	19.703	-5.7799	0.0031
Communication_inflation_10	-1.884	0.152	-4.4874	0.0113
Communication_inflation_11	3.8875	48.7885	-5.7628	0.0031
Communication_inflation_12	-1.3837	0.2506	-0.5748	0.5628
Recreational/personal_services_inflation_1	-18.0087	0	-4.4319	0.0119
Recreational/personal_services_inflation_2	4.6246	101.962	2.0679	7.9083
Recreational/personal_services_inflation_3	4.6754	107.2769	22.619*	6657600000*
Recreational/personal_services_inflation_4	3.97	52.9838	19.037	1.85E+08
Recreational/personal_services_inflation_5	22.2694*	469320000	28.8839*	3500300000000*
Recreational/personal_services_inflation_6	-	0*	*	*
Recreational/personal_services_inflation_7	26.2961*	0*	-5.1787	0.0056
Recreational/personal_services_inflation_8	-			
Recreational/personal_services_inflation_9	38.2124*	0***	-4.4384	0.0118
Recreational/personal_services_inflation_10	-			
Recreational/personal_services_inflation_11	23.5308*	0*	8.2296	3750.381
Recreational/personal_services_inflation_12	9.2662	10574.36	23.0175*	9917000000*
Miscellaneous_services_inflation_1	8.0215	3045.748	33.4146*	3249300000000
Miscellaneous_services_inflation_2	57.2097*	7.0122E+24	*	00**
Miscellaneous_services_inflation_3	**	***	22.1163	4.03E+09
Miscellaneous_services_inflation_4	-3.3837	0.0339	-1.1657	0.3117
Miscellaneous_services_inflation_5	-12.4565	0	1.5207	4.5753
Miscellaneous_services_inflation_6	8.7219	6135.677	2.6599	14.2955
Miscellaneous_services_inflation_7	1.2779	3.5891	-0.84	0.4317
Miscellaneous_services_inflation_8	-6.3319	0.0018	0.3204	1.3777
Miscellaneous_services_inflation_9	-4.8282	0.008	-8.0061	0.0003
Miscellaneous_services_inflation_10			20.5802*	
Miscellaneous_services_inflation_11	1.9934	7.3406	*	866700000**
Miscellaneous_services_inflation_12	2.0644	7.8808	-5.1116	0.006
Miscellaneous_services_inflation_13	16.7029*			
Miscellaneous_services_inflation_14	*	17947000**	-15.0286	0
Miscellaneous_services_inflation_15	4.6112	100.6096	0.4496	1.5676
Miscellaneous_services_inflation_16			-	
Miscellaneous_services_inflation_17	-8.8887	0.0001	22.9369*	0***

			**	
	-		-	
Miscellaneous_services_inflation_11	18.3372*	0**	27.3946*	0***
	*		**	
Miscellaneous_services_inflation_12	-2.6642	0.0697	15.7315*	0*
Food/Non_alcoholic_expenditure	-3.2761	0.0378	-0.1377	0.8713
Alcoholic_expenditure	-0.5562	0.5734	-0.0467	0.9544
	-		-	
Energy_expenditure	0.8985***	0.4072***	-0.1833	0.8325
Non_energy_goods_expenditure	-4.7226*	0.0089*	-0.1898	0.8272
Housing_services_expenditure	0.2806	1.324	0.2345	1.2643
Transport/travel_services_expenditure	2.8518***	17.3194***	0.4709	1.6014
Communication_expenditure	-1.2473	0.2873	-0.0267	0.9736
Recreational/personal_services_expenditure	2.3022	9.9959	0.1512	1.1632
Miscellaneous_services_expenditure	2.6397	14.0094	-0.6379	0.5284

Energy Goods		
without sales	full sample	
	coef	H.R.
SE	0.2486***	1.2822***
SW	-0.0086	0.9915
East_Anglia	-0.1328***	0.8756***
East_Midlands	0.0408	1.0416
West_Midlands	-0.0093	0.9907
Yorks_Humber	-0.1792***	0.8359***
NW	-0.1425***	0.8672***
North	-0.2439***	0.7836***
Wales	-0.146**	0.8642**
Scotland	-0.3441***	0.7089***
NI	-0.5269***	0.5905***
FEB	0.2332**	1.2626**
MAR	0.2293**	1.2578**
APR	0.2883**	1.3342**
MAY	0.0294	1.0299
JUN	0.2743***	1.3157***
JUL	0.2906***	1.3372***
AUG	0.2607**	1.2979**
SEP	-0.1923**	0.8251**
OCT	-0.1665**	0.8466**

NOV	-0.2633***	0.7685***
DEC	-0.2313**	0.7935**
wage	7.2311***	1381.7589***
independent	0.1768***	1.1933***
tax	-0.1398	0.8695
NX	-0.0566***	0.945***
nine_ending	-0.0759	0.9269
zero_ending	-0.1426***	0.8671***
market_share	0.3366***	1.4002***
increase_increase	-0.2901***	0.7482***
increase_decrease	-0.0829***	0.9204***
decrease_decrease	0.0477	1.0488
oil	0.5708***	1.7697***
oil_1	0.0086***	1.0087***
oil_2	0.0101***	1.0102***
oil_3	0.0073***	1.0073***
oil_4	0.0049**	1.005**
oil_5	-0.0019	0.9981
oil_6	0.0063***	1.0063***
oil_7	0.0081***	1.0082***
oil_8	0.0001	1.0001
oil_9	-0.0003	0.9997
oil_10	0.0037*	1.0037*
oil_11	0.0039*	1.0039*
oil_12	0.0001	1.0001
inflation_1	-11.613	0
inflation_2	-4.1282	0.0161
inflation_3	12.0895*	177990*
inflation_4	-3.8655	0.021
inflation_5	11.0102	60490.89
inflation_6	-0.1126	0.8935
inflation_7	-16.9749**	0**
inflation_8	8.2664	3890.947
inflation_9	-1.7715	0.1701
inflation_10	-2.6498	0.0707
inflation_11	4.5755	97.0764
inflation_12	-0.7187	0.4874
R	-0.1141	0.8921
R_1	-0.008***	0.9921***
R_2	-0.0036	0.9964
R_3	0.0015	1.0015
R_4	-0.0012	0.9988
R_5	0.0005	1.0005

R_6	-0.0075***	0.9926***
R_7	0.0035	1.0035
R_8	0.0051**	1.0051**
R_9	-0.001	0.999
R_10	0.0035	1.0035
R_11	-0.0012	0.9988
R_12	0.0038*	1.0039*
Food/Non_alcoholic_inflation_1	-0.105	0.9004
Food/Non_alcoholic_inflation_2	-0.0184	0.9817
Food/Non_alcoholic_inflation_3	-6.6321***	0.0013***
Food/Non_alcoholic_inflation_4	-2.141	0.1175
Food/Non_alcoholic_inflation_5	1.8443	6.3237
Food/Non_alcoholic_inflation_6	6.0294**	415.4466**
Food/Non_alcoholic_inflation_7	-1.4435	0.2361
Food/Non_alcoholic_inflation_8	2.47	11.8225
Food/Non_alcoholic_inflation_9	-2.0899	0.1237
Food/Non_alcoholic_inflation_10	-4.2645*	0.0141*
Food/Non_alcoholic_inflation_11	2.5868	13.2876
Food/Non_alcoholic_inflation_12	0.2964	1.3449
Alcoholic_inflation_1	2.2052	9.0724
Alcoholic_inflation_2	10.4982***	36250.9332***
Alcoholic_inflation_3	3.3032	27.2002
Alcoholic_inflation_4	2.4806	11.9481
Alcoholic_inflation_5	-1.2241	0.294
Alcoholic_inflation_6	-4.3771**	0.0126**
Alcoholic_inflation_7	2.2261	9.2634
Alcoholic_inflation_8	-0.2873	0.7503
Alcoholic_inflation_9	-1.4536	0.2337
Alcoholic_inflation_10	-1.544	0.2135
Alcoholic_inflation_11	-0.2746	0.7599
Alcoholic_inflation_12	-4.4253**	0.012**
Energy_inflation_1	-0.8805	0.4146
Energy_inflation_2	-0.7202	0.4867
Energy_inflation_3	0.8354	2.3058
Energy_inflation_4	-1.6179	0.1983
Energy_inflation_5	0.2597	1.2965
Energy_inflation_6	-1.148	0.3173
Energy_inflation_7	-1.8629*	0.1552*
Energy_inflation_8	1.3305	3.783
Energy_inflation_9	4.951***	141.314***
Energy_inflation_10	0.1335	1.1428
Energy_inflation_11	0.0841	1.0878
Energy_inflation_12	-1.9487**	0.1425**

Non_energy_goods_inflation_1	-1.3657	0.2552
Non_energy_goods_inflation_2	-0.2499	0.7789
Non_energy_goods_inflation_3	0.1777	1.1945
Non_energy_goods_inflation_4	-0.1484	0.8621
Non_energy_goods_inflation_5	3.8899*	48.9081*
Non_energy_goods_inflation_6	-0.3853	0.6803
Non_energy_goods_inflation_7	1.8447	6.3263
Non_energy_goods_inflation_8	3.7069*	40.7275*
Non_energy_goods_inflation_9	2.7672	15.9134
Non_energy_goods_inflation_10	3.7196*	41.2465*
Non_energy_goods_inflation_11	-4.0309*	0.0178*
Non_energy_goods_inflation_12	-4.0095*	0.0181*
Housing_services_inflation_1	-4.1627	0.0156
Housing_services_inflation_2	16.8798***	21419000***
Housing_services_inflation_3	20.6376***	917900000***
Housing_services_inflation_4	1.2974	3.6599
Housing_services_inflation_5	0.0766	1.0796
Housing_services_inflation_6	11.4079**	90028.1151**
Housing_services_inflation_7	6.6844	799.8649
Housing_services_inflation_8	1.0973	2.996
Housing_services_inflation_9	1.0316	2.8056
Housing_services_inflation_10	0.3717	1.4502
Housing_services_inflation_11	18.4331***	101250000***
Housing_services_inflation_12	2.0329	7.6358
Transport/travel_services_inflation_1	3.1955*	24.4219*
Transport/travel_services_inflation_2	0.8067	2.2405
Transport/travel_services_inflation_3	1.9256	6.8591
Transport/travel_services_inflation_4	0.4303	1.5377
Transport/travel_services_inflation_5	2.8397	17.1111
Transport/travel_services_inflation_6	1.2645	3.5415
Transport/travel_services_inflation_7	1.8599	6.4233
Transport/travel_services_inflation_8	-2.4566	0.0857
Transport/travel_services_inflation_9	1.9259	6.8611
Transport/travel_services_inflation_10	0.0316	1.0321
Transport/travel_services_inflation_11	3.04	20.9057
Transport/travel_services_inflation_12	5.7702***	320.6026***
Communication_inflation_1	-1.9229	0.1462
Communication_inflation_2	-7.2964***	0.0007***
Communication_inflation_3	-1.7702	0.1703
Communication_inflation_4	0.0526	1.054
Communication_inflation_5	1.766	5.8474
Communication_inflation_6	-1.0297	0.3571
Communication_inflation_7	1.0389	2.826

Communication_inflation_8	-3.5417*	0.029*
Communication_inflation_9	-2.2719	0.1031
Communication_inflation_10	-0.1249	0.8826
Communication_inflation_11	2.2022	9.0452
Communication_inflation_12	-0.2151	0.8065
Recreational/personal_services_inflation_1	-9.6648	0.0001
Recreational/personal_services_inflation_2	-13.3128*	0*
Recreational/personal_services_inflation_3	9.0653	8649.799
Recreational/personal_services_inflation_4	-2.3303	0.0973
Recreational/personal_services_inflation_5	4.6748	107.2109
Recreational/personal_services_inflation_6	-15.8398**	0**
Recreational/personal_services_inflation_7	-14.4316*	0*
Recreational/personal_services_inflation_8	-17.9944**	0**
Recreational/personal_services_inflation_9	8.4455	4653.921
Recreational/personal_services_inflation_10	15.6475**	6246500**
Recreational/personal_services_inflation_11	25.2082***	88672000000***
Recreational/personal_services_inflation_12	8.3919	4411.054
Miscellaneous_services_inflation_1	-6.4112	0.0016
Miscellaneous_services_inflation_2	12.5756**	289410**
Miscellaneous_services_inflation_3	-2.2731	0.103
Miscellaneous_services_inflation_4	2.2828	9.8041
Miscellaneous_services_inflation_5	-4.8633	0.0077
Miscellaneous_services_inflation_6	2.5112	12.3203
Miscellaneous_services_inflation_7	5.731	308.2813
Miscellaneous_services_inflation_8	14.2826***	1595300***
Miscellaneous_services_inflation_9	-1.106	0.3309
Miscellaneous_services_inflation_10	-12.611***	0***
Miscellaneous_services_inflation_11	-23.6368***	0***
Miscellaneous_services_inflation_12	-20.4161***	0***
Food/Non_alcoholic_expenditure	6.4101***	607.9355***
Alcoholic_expenditure	-0.7355***	0.4793***
Energy_expenditure	-0.2753	0.7593
Non_energy_goods_expenditure	-3.5941*	0.0275*
Housing_services_expenditure	0.7478*	2.1123*
Transport/travel_services_expenditure	2.0467*	7.7426*
Communication_expenditure	-1.1483***	0.3172***
Recreational/personal_services_expenditure	-0.1939	0.8237
Miscellaneous_services_expenditure	0.0016	1.0016

Energy Goods Pre- and Post-crisis

without sales	pre-crisis	post-crisis
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	coef	H.R.	coef	H.R.
	0.3119**		0.2202**	
SE	*	1.366***	*	1.2463***
SW	-0.0086	0.9914	-0.0172	0.9829
			-	
			0.1858**	
East_Anglia	-0.0709	0.9316	*	0.8304***
East_Midlands	0.1162*	1.1232*	-0.0325	0.968
West_Midlands	-0.0028	0.9972	0.0088	1.0088
			-	
			0.3792**	
Yorks_Humber	-0.0061	0.9939	*	0.6844***
NW	-0.022	0.9783	-0.269***	0.7642***
			-	
	0.2413**		0.2891**	
North	*	0.7856***	*	0.7489***
	-			
	0.2483**			
Wales	*	0.7801***	-0.1284	0.8795
	-		-	
	0.2524**		0.4445**	
Scotland	*	0.7769***	*	0.6412***
	-		-	
	0.5091**		0.5604**	
NI	*	0.601***	*	0.571***
FEB	-0.0778	0.9251	0.1148	1.1216
MAR	0.218	1.2436	0.0459	1.0469
APR	0.1235	1.1314	0.2504	1.2845
MAY	0.0228	1.023	0.0444	1.0454
JUN	0.3012**	1.3515**	0.1442	1.1551
JUL	0.372**	1.4507**	0.1271	1.1355
AUG	0.3053	1.3571	0.171	1.1865
SEP	-0.1776	0.8373	-0.0915	0.9126
OCT	-0.0974	0.9072	-0.1382	0.871
	-			
NOV	0.3185**	0.7272**	-0.1622	0.8503
	-			
DEC	0.3617**	0.6965**	-0.1981	0.8203
wage	3.4631	31.9165	1.5374	4.6525
			0.2974**	
independent	0.103***	1.1084***	*	1.3464***
	3.8196**			
tax	*	45.5859***	-0.5086	0.6013
NX	0.0023	1.0023	-0.2082*	0.812*
nine_ending	-0.0855	0.9181	-0.1003	0.9046
zero_ending	-	0.8344***	-	0.8849***

	0.1811**		0.1223**	
	*		*	
market_share	0.4988**	1.6468***	0.2923**	1.3395***
	*		*	
	-		-	
increase_increase	0.3085**	0.7345***	0.2666**	0.766***
	*		*	
	-		-	
increase_decrease	0.1317**	0.8766***	-0.0039	0.9961
	*			
decrease_decrease	-0.0151	0.985	0.0897	1.0938
oil	0.555**	1.7419**	0.4158	1.5156
	0.0083**			
oil_1	*	1.0083***	0.0044	1.0044
oil_2	0.0086**	1.0086**	0.0067*	1.0068*
oil_3	-0.0039	0.9961	0.0065*	1.0066*
oil_4	-0.0035	0.9965	0.0024	1.0024
oil_5	-0.0024	0.9976	-0.0014	0.9986
oil_6	0.0085**	1.0085**	0.0025	1.0025
	0.0111**			
oil_7	*	1.0111***	0.0036	1.0036
oil_8	0.0029	1.0029	-0.0049	0.9951
oil_9	0.0093**	1.0093**	-0.0001	0.9999
oil_10	0.0054	1.0054	0.0022	1.0022
oil_11	0.0037	1.0037	0.0038	1.0038
oil_12	-0.0001	0.9999	-0.0006	0.9994
inflation_1	-16.3155	0	0.1037	1.1093
inflation_2	0.4654	1.5927	-10.4659	0
inflation_3	1.9892	7.3094	20.4691*	775550000*
inflation_4	7.5495	1899.862	-3.5371	0.0291
inflation_5	-4.6735	0.0093	10.8048	49254.58
inflation_6	-0.569	0.5661	-8.7739	0.0002
inflation_7	-10.225	0	-11.2147	0
inflation_8	6.7099	820.4974	9.3101	11049
inflation_9	3.1844	24.1527	0.6221	1.8628
inflation_10	7.2586	1420.321	0.2351	1.265
inflation_11	7.2321	1383.059	-3.719	0.0243
inflation_12	-0.7861	0.4556	-1.8633	0.1552
R	0.277	1.3191	-0.5361*	0.585*
			-	
			0.0107**	
R_1	0.0151*	1.0152*	*	0.9893***
R_2	-0.0007	0.9993	-0.0053	0.9947
R_3	0.0091	1.0091	-0.0031	0.9969
R_4	0.0086	1.0086	-0.0055*	0.9945*

R_5	0.0075	1.0076	0.0029	1.0029
R_6	0.0002	1.0002	-0.0055	0.9945
R_7	0.0173**	1.0175**	0.0053	1.0053
R_8	0.0074	1.0074	0.0062*	1.0062*
R_9	-0.0018	0.9982	0.0008	1.0008
R_10	0.0118	1.0119	0.0024	1.0024
R_11	0.0039	1.0039	-0.0026	0.9974
R_12	0.0076	1.0076	0.0045	1.0046
	-			
Food/Non_alcoholic_inflation_1	11.991**	0**	3.3416	28.2631
Food/Non_alcoholic_inflation_2	2.7378	15.4524	-0.2092	0.8112
Food/Non_alcoholic_inflation_3	-8.0134*	0.0003*	-3.2759	0.0378
Food/Non_alcoholic_inflation_4	-1.1776	0.308	0.523	1.6871
Food/Non_alcoholic_inflation_5	1.8419	6.3083	1.7738	5.8933
Food/Non_alcoholic_inflation_6	4.8144	123.2756	5.6677	289.3775
Food/Non_alcoholic_inflation_7	-0.3835	0.6815	-2.1369	0.118
Food/Non_alcoholic_inflation_8	0.1838	1.2018	6.6739	791.4733
	-			
Food/Non_alcoholic_inflation_9	9.6226**	0.0001**	-1.858	0.156
	-			
	10.0706*			
Food/Non_alcoholic_inflation_10	*	0**	-1.2246	0.2939
Food/Non_alcoholic_inflation_11	-0.7497	0.4725	-3.0853	0.0457
			-	
Food/Non_alcoholic_inflation_12	3.8004	44.7212	8.8849**	0.0001**
Alcoholic_inflation_1	0.6263	1.8708	0.3958	1.4856
	17.8446*			
Alcoholic_inflation_2	**	56212000***	4.4298	83.9188
Alcoholic_inflation_3	-8.7887	0.0002	4.8939	133.4763
Alcoholic_inflation_4	7.7221	2257.718	0.2744	1.3157
Alcoholic_inflation_5	-0.0286	0.9718	0.6343	1.8857
Alcoholic_inflation_6	6.1294	459.149	-6.52***	0.0015***
Alcoholic_inflation_7	2.495	12.1219	-0.2131	0.8081
Alcoholic_inflation_8	6.4268	618.1945	-1.3559	0.2577
Alcoholic_inflation_9	2.2299	9.2989	-1.0584	0.347
	13.2272*			
Alcoholic_inflation_10	*	555250**	-2.7657	0.0629
Alcoholic_inflation_11	2.4259	11.3129	1.5713	4.813
Alcoholic_inflation_12	-5.9947	0.0025	-2.0079	0.1343
Energy_inflation_1	-0.6299	0.5326	-0.3443	0.7087
Energy_inflation_2	0.9072	2.4775	0.0516	1.0529
Energy_inflation_3	1.6254	5.0803	2.9658*	19.4096*
Energy_inflation_4	-3.2299*	0.0396*	0.8854	2.4239
Energy_inflation_5	1.8558	6.3967	0.9234	2.5177

Energy_inflation_6	1.0847	2.9584	-1.664	0.1894
Energy_inflation_7	0.8844	2.4216	-1.0192	0.3609
Energy_inflation_8	0.9993	2.7164	0.1203	1.1278
Energy_inflation_9	4.5778**	97.3045**	2.4948	12.1191
Energy_inflation_10	-0.9039	0.405	-1.4876	0.2259
Energy_inflation_11	0.7078	2.0295	-1.5781	0.2064
	-			
	6.6974**			
Energy_inflation_12	*	0.0012***	0.316	1.3716
Non_energy_goods_inflation_1	-1.7055	0.1817	3.4411	31.2215
Non_energy_goods_inflation_2	-0.2776	0.7576	0.0237	1.024
Non_energy_goods_inflation_3	-0.3879	0.6784	3.3957	29.8365
Non_energy_goods_inflation_4	2.9978	20.0416	-2.5719	0.0764
Non_energy_goods_inflation_5	0.1088	1.115	5.2552	191.5545
Non_energy_goods_inflation_6	-1.9596	0.1409	1.2503	3.4913
Non_energy_goods_inflation_7	0.1811	1.1985	-0.323	0.724
Non_energy_goods_inflation_8	2.119	8.3224	2.1773	8.8226
Non_energy_goods_inflation_9	1.588	4.894	1.9552	7.0657
Non_energy_goods_inflation_10	4.4332	84.1969	3.7117	40.9238
Non_energy_goods_inflation_11	-2.0882	0.1239	0.1369	1.1467
Non_energy_goods_inflation_12	-1.92	0.1466	-3.4166	0.0328
Housing_services_inflation_1	-10.6011	0	15.6827	6470100
Housing_services_inflation_2	-4.5904	0.0101	-14.0453	0
Housing_services_inflation_3	1.7226	5.5991	-9.2763	0.0001
Housing_services_inflation_4	4.5291	92.6735	-9.6566	0.0001
	-			
	19.4444*			
Housing_services_inflation_5	*	0**	-7.9251	0.0004
Housing_services_inflation_6	0.5746	1.7765	16.9047	21960000
	-			
Housing_services_inflation_7	18.0707*	0*	24.3793	3.87E+10
Housing_services_inflation_8	-1.4144	0.2431	0.928	2.5294
Housing_services_inflation_9	-8.17	0.0003	10.6392	41740.44
Housing_services_inflation_10	3.3811	29.4039	5.9528	384.8403
	22.4512*			
Housing_services_inflation_11	*	5628900000**	3.6633	38.9882
Housing_services_inflation_12	4.9128	136.0191	5.1398	170.6869
Transport/travel_services_inflation_1	2.3319	10.298	0.8952	2.4477
Transport/travel_services_inflation_2	-4.3026	0.0135	1.9083	6.7417
Transport/travel_services_inflation_3	-3.6638	0.0256	4.7412	114.5677
Transport/travel_services_inflation_4	-5.7591	0.0032	2.1922	8.9549

Transport/travel_services_inflation_5	-0.5628	0.5696	-0.1122	0.8938
Transport/travel_services_inflation_6	-1.2518	0.286	-0.5188	0.5952
Transport/travel_services_inflation_7	-5.8407	0.0029	1.3952	4.0359
Transport/travel_services_inflation_8	-	0.0004**	-1.3911	0.2488
Transport/travel_services_inflation_9	-5.8381*	0.0029*	-0.2968	0.7432
Transport/travel_services_inflation_10	-0.1417	0.8679	-0.2791	0.7565
Transport/travel_services_inflation_11	8.2685**	3899.2021**	2.0242	7.5702
Transport/travel_services_inflation_12	9.5538**	*	6.742**	847.2319**
Communication_inflation_1	-1.3351	0.2631	3.2729	26.3873
			-	
			11.7569*	
Communication_inflation_2	-3.2981	0.037	**	0***
Communication_inflation_3	-3.8527	0.0212	-4.8029	0.0082
Communication_inflation_4	3.6144	37.1306	-1.5765	0.2067
	10.0548*			
Communication_inflation_5	*	23266.0502**	1.3716	3.9415
	-			
	11.2326*			
Communication_inflation_6	*	0**	3.0174	20.4372
Communication_inflation_7	-1.0088	0.3646	1.5043	4.501
Communication_inflation_8	-6.1409	0.0022	-4.4479	0.0117
Communication_inflation_9	3.5602	35.1693	-5.7672	0.0031
Communication_inflation_10	1.3935	4.0287	-3.2718	0.0379
	10.1399*			
Communication_inflation_11	*	25333.1744**	-7.853**	0.0004**
Communication_inflation_12	-3.3919	0.0336	0.1701	1.1854
Recreational/personal_services_inflation_1	-13.7504	0	-3.4413	0.032
Recreational/personal_services_inflation_2	12.5834	291680	-3.6428	0.0262
Recreational/personal_services_inflation_3	-4.0346	0.0177	14.4257	1840900
Recreational/personal_services_inflation_4	-0.5718	0.5645	17.6868	48006000
Recreational/personal_services_inflation_5	12.363	233990	24.6624*	51372000000
	-			*
Recreational/personal_services_inflation_6	41.1105*	**	0***	0.0002
Recreational/personal_services_inflation_6	-	0***	-8.7142	0.001
Recreational/personal_services_inflation_6	-	0***	-6.9437	0.001

ation_7	38.9029*			
	**			
Recreational/personal_services_infl ation_8	-18.838	0	2.8699	17.635
Recreational/personal_services_infl ation_9	17.4955	39647000	23.8451*	22688000000
Recreational/personal_services_infl ation_10	13.6382	837540	28.0725*	15550000000
Recreational/personal_services_infl ation_11	37.7498*	24804000000000	*	00**
Recreational/personal_services_infl ation_12	4.4903	89.1461	16.0568	9405700
Miscellaneous_services_inflation_1	-10.6336	0	-3.8135	0.0221
Miscellaneous_services_inflation_2	5.2794	196.251	0.2119	1.2361
Miscellaneous_services_inflation_3	-0.2697	0.7636	6.3573	576.7039
Miscellaneous_services_inflation_4	0.1054	1.1111	-2.4265	0.0883
Miscellaneous_services_inflation_5	-3.2586	0.0384	1.3464	3.8435
			-2.4872	0.0831
			24.9053*	65499000000
Miscellaneous_services_inflation_6	8.354	4246.986	**	***
Miscellaneous_services_inflation_7	2.785	16.1994	-1.4622	0.2317
	16.9887*			
Miscellaneous_services_inflation_8	*	23882000**	-13.204	0
Miscellaneous_services_inflation_9	1.7406	5.7008	6.2662	526.4878
			-	
Miscellaneous_services_inflation_1 0	-11.3653	0	24.5661*	0***
	-		**	
Miscellaneous_services_inflation_1 1	25.6478*	0***	28.2871*	0***
	**		**	
Miscellaneous_services_inflation_1 2	-	0*	-	0*
	14.8103*		16.1023*	
Food/Non_alcoholic_expenditure	0.6067	1.8343	1.339	3.8153
Alcoholic_expenditure	-1.8476	0.1576	-0.2819	0.7544
	-			
Energy_expenditure	1.3897**	0.2491**	0.8538	2.3485
Non_energy_goods_expenditure	-5.7842	0.0031	-1.8379	0.1592
Housing_services_expenditure	0.2742	1.3154	1.7399*	5.6967*
Transport/travel_services_expendit ure	9.8947**	19825.6928***	2.5775*	13.1642*
	*			
	-		-	
	3.4975**		1.9239**	
Communication_expenditure	*	0.0303***	*	0.146***
Recreational/personal_services_ex penditure	3.3294	27.9224	0.2239	1.2509
Miscellaneous_services_expenditur e	2.1194*	8.326*	-0.5887	0.5551

Non-Energy Goods		
with sales	full sample	
	coef	H.R.
SE	0.06***	1.0618***
SW	0.0394***	1.0402***
East_Anglia	0.0321***	1.0326***
East_Midlands	0.0221***	1.0224***
West_Midlands	0.0305***	1.031***
Yorks_Humber	0.0302***	1.0306***
NW	0.0447***	1.0457***
North	0.0002	1.0002
Wales	-0.0152***	0.9849***
Scotland	0.037***	1.0377***
NI	0.0279***	1.0282***
FEB	-0.0405***	0.9604***
MAR	0.0096	1.0097
APR	-0.0334***	0.9672***
MAY	0.0171**	1.0173**
JUN	0.0195**	1.0197**
JUL	0.0556***	1.0572***
AUG	-0.0088	0.9913
SEP	0.0182**	1.0184**
OCT	0.0088	1.0088
NOV	0.0517***	1.0531***
DEC	-0.0158*	0.9843*
wage	0.1906***	1.21***
independent	-0.0022	0.9978
tax	-0.4833***	0.6168***
NX	-0.0194***	0.9808***
nine_ending	0.0211***	1.0213***
zero_ending	0.0874***	1.0913***
sales	0.398***	1.4889***
market_share	0.0192***	1.0194***
increase_increase	-0.1706***	0.8432***
increase_decrease	-0.0182***	0.9819***
decrease_decrease	-0.0232***	0.9771***
oil	-0.0346***	0.966***
oil_1	0.0006***	1.0006***
oil_2	0.0006***	1.0006***
oil_3	0	1
oil_4	0.0008***	1.0008***
oil_5	0.0003*	1.0003*
oil_6	-0.0006***	0.9994***

oil_7	0.0001	1.0001
oil_8	-0.0006***	0.9994***
oil_9	-0.0005***	0.9995***
oil_10	-0.0007***	0.9993***
oil_11	-0.0009***	0.9991***
oil_12	-0.0008***	0.9992***
inflation_1	0.1947	1.215
inflation_2	1.7349***	5.6681***
inflation_3	4.2107***	67.4046***
inflation_4	1.6905***	5.4221***
inflation_5	0.0649	1.067
inflation_6	-1.479**	0.2279**
inflation_7	-0.0768	0.9261
inflation_8	1.974***	7.1991***
inflation_9	-0.2042	0.8153
inflation_10	-0.4261	0.6531
inflation_11	-2.6857***	0.0682***
inflation_12	-0.34	0.7118
R	-0.1656***	0.8473***
R_1	-0.0008***	0.9992***
R_2	0.0005***	1.0005***
R_3	-0.0011***	0.9989***
R_4	-0.001***	0.999***
R_5	-0.001***	0.999***
R_6	-0.0001	0.9999
R_7	-0.0005***	0.9995***
R_8	0.0012***	1.0012***
R_9	0	1
R_10	0.0011***	1.0011***
R_11	0.0021***	1.0021***
R_12	0.0013***	1.0013***
Food/Non_alcoholic_inflation_1	0.9869***	2.6829***
Food/Non_alcoholic_inflation_2	2.0684***	7.9122***
Food/Non_alcoholic_inflation_3	-1.0416***	0.3529***
Food/Non_alcoholic_inflation_4	1.587***	4.8889***
Food/Non_alcoholic_inflation_5	0.695***	2.0037***
Food/Non_alcoholic_inflation_6	1.9241***	6.8491***
Food/Non_alcoholic_inflation_7	-0.4762**	0.6212**
Food/Non_alcoholic_inflation_8	0.2325	1.2617
Food/Non_alcoholic_inflation_9	-0.6194***	0.5383***
Food/Non_alcoholic_inflation_10	0.1158	1.1227
Food/Non_alcoholic_inflation_11	0.454**	1.5746**
Food/Non_alcoholic_inflation_12	0.2404	1.2718

Alcoholic_inflation_1	-1.9349***	0.1444***
Alcoholic_inflation_2	-1.9551***	0.1415***
Alcoholic_inflation_3	-0.8432***	0.4304***
Alcoholic_inflation_4	-0.6935***	0.4998***
Alcoholic_inflation_5	0.3571**	1.4291**
Alcoholic_inflation_6	0.5688***	1.7661***
Alcoholic_inflation_7	0.7971***	2.2191***
Alcoholic_inflation_8	0.8946***	2.4464***
Alcoholic_inflation_9	-0.3291**	0.7196**
Alcoholic_inflation_10	0.4284***	1.5347***
Alcoholic_inflation_11	0.5881***	1.8006***
Alcoholic_inflation_12	-0.5474***	0.5784***
Energy_inflation_1	0.27***	1.3099***
Energy_inflation_2	-0.5095***	0.6008***
Energy_inflation_3	-0.3125***	0.7316***
Energy_inflation_4	0.2512***	1.2855***
Energy_inflation_5	0.8145***	2.258***
Energy_inflation_6	1.3264***	3.7674***
Energy_inflation_7	1.0979***	2.9978***
Energy_inflation_8	0.2062***	1.229***
Energy_inflation_9	-0.0947	0.9096
Energy_inflation_10	0.2195***	1.2455***
Energy_inflation_11	0.2499***	1.2838***
Energy_inflation_12	-0.3329***	0.7168***
Non_energy_goods_inflation_1	0.0186	1.0188
Non_energy_goods_inflation_2	-0.19	0.827
Non_energy_goods_inflation_3	-0.7802***	0.4583***
Non_energy_goods_inflation_4	-0.7726***	0.4618***
Non_energy_goods_inflation_5	0.0748	1.0777
Non_energy_goods_inflation_6	-0.671***	0.5112***
Non_energy_goods_inflation_7	-0.2371	0.7889
Non_energy_goods_inflation_8	0.085	1.0887
Non_energy_goods_inflation_9	-0.5961***	0.551***
Non_energy_goods_inflation_10	-1.0673***	0.3439***
Non_energy_goods_inflation_11	-0.2346	0.7909
Non_energy_goods_inflation_12	-0.0015	0.9985
Housing_services_inflation_1	-3.4796***	0.0308***
Housing_services_inflation_2	-0.6573	0.5182
Housing_services_inflation_3	-0.5617	0.5703
Housing_services_inflation_4	3.3763***	29.2635***
Housing_services_inflation_5	0.5889	1.802
Housing_services_inflation_6	0.659	1.9329
Housing_services_inflation_7	-3.2436***	0.039***

Housing_services_inflation_8	-1.2888***	0.2756***
Housing_services_inflation_9	-0.3141	0.7304
Housing_services_inflation_10	-0.8645**	0.4212**
Housing_services_inflation_11	2.4842***	11.9915***
Housing_services_inflation_12	1.4975***	4.4707***
Transport/travel_services_inflation_1	-0.3008**	0.7402**
Transport/travel_services_inflation_2	0.4565***	1.5785***
Transport/travel_services_inflation_3	1.7569***	5.7942***
Transport/travel_services_inflation_4	0.4768***	1.6109***
Transport/travel_services_inflation_5	0.8722***	2.3922***
Transport/travel_services_inflation_6	0.4773***	1.6116***
Transport/travel_services_inflation_7	-0.0698	0.9326
Transport/travel_services_inflation_8	0.0437	1.0446
Transport/travel_services_inflation_9	0.4407***	1.5538***
Transport/travel_services_inflation_10	1.3542***	3.8738***
Transport/travel_services_inflation_11	0.8012***	2.2281***
Transport/travel_services_inflation_12	0.7095***	2.033***
Communication_inflation_1	1.4043***	4.0727***
Communication_inflation_2	0.8325***	2.299***
Communication_inflation_3	0.7925***	2.2089***
Communication_inflation_4	1.0451***	2.8436***
Communication_inflation_5	1.2557***	3.5102***
Communication_inflation_6	1.8085***	6.1011***
Communication_inflation_7	0.4344***	1.544***
Communication_inflation_8	-0.3328**	0.7169**
Communication_inflation_9	0.8823***	2.4165***
Communication_inflation_10	1.3004***	3.6708***
Communication_inflation_11	1.287***	3.6218***
Communication_inflation_12	0.1356	1.1452
Recreational/personal_services_inflation_1	5.6805***	293.0929***
Recreational/personal_services_inflation_2	8.7919***	6580.5741***
Recreational/personal_services_inflation_3	9.4474***	12675.7882***
Recreational/personal_services_inflation_4	5.4655***	236.3997***
Recreational/personal_services_inflation_5	8.3873***	4390.8026***
Recreational/personal_services_inflation_6	2.1777***	8.8259***
Recreational/personal_services_inflation_7	3.0525***	21.1689***
Recreational/personal_services_inflation_8	7.5258***	1855.2101***
Recreational/personal_services_inflation_9	6.3167***	553.7513***
Recreational/personal_services_inflation_10	2.8695***	17.6276***
Recreational/personal_services_inflation_11	6.1507***	469.0263***
Recreational/personal_services_inflation_12	2.6718***	14.4655***
Miscellaneous_services_inflation_1	-0.0656	0.9365
Miscellaneous_services_inflation_2	1.304***	3.6842***

Miscellaneous_services_inflation_3	-0.1475	0.8629
Miscellaneous_services_inflation_4	-1.1005***	0.3327***
Miscellaneous_services_inflation_5	-1.7886***	0.1672***
Miscellaneous_services_inflation_6	-2.9722***	0.0512***
Miscellaneous_services_inflation_7	-4.51***	0.011***
Miscellaneous_services_inflation_8	-5.529***	0.004***
Miscellaneous_services_inflation_9	-3.3685***	0.0344***
Miscellaneous_services_inflation_10	-5.4814***	0.0042***
Miscellaneous_services_inflation_11	-7.7215***	0.0004***
Miscellaneous_services_inflation_12	-6.0654***	0.0023***
Food/Non_alcoholic_expenditure	0.0163	1.0164
Alcoholic_expenditure	0.1188***	1.1262***
Energy_expenditure	-0.0046	0.9954
Non_energy_goods_expenditure	0.0057	1.0057
Housing_services_expenditure	0.2796***	1.3226***
Transport/travel_services_expenditure	-0.0676**	0.9347**
Communication_expenditure	-0.1408***	0.8686***
Recreational/personal_services_expenditure	-0.0494	0.9518
Miscellaneous_services_expenditure	-0.163***	0.8496***

Non-Energy Goods Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0701***	1.0726***	0.0568***	1.0584***
SW	0.0287***	1.0291***	0.0529***	1.0543***
East_Anglia	0.0234***	1.0237***	0.0428***	1.0438***
East_Midlands	0.0161***	1.0163***	0.025***	1.0253***
West_Midlands	0.0312***	1.0317***	0.0333***	1.0338***
Yorks_Humber	0.0343***	1.0349***	0.0296***	1.03***
NW	0.036***	1.0367***	0.0471***	1.0483***
North	0.011*	1.011*	-0.0117**	0.9883**
Wales	-0.0266***	0.9738***	-0.002	0.998
Scotland	0.0485***	1.0497***	0.0254***	1.0257***
NI	-0.0066	0.9934	0.0385***	1.0392***
FEB	-0.037***	0.9636***	-	0.9692***
MAR	0.0649***	1.0671***	-	0.9546***
APR	0.0079	1.0079	-	0.965***
MAY	0.0208	1.021	0.0268**	1.0272**
JUN	0.0123	1.0124	0.0353***	1.036***

JUL	0.0174	1.0176	0.0222**	1.0225**
AUG	-0.0282**	0.9722**	0.0105	1.0105
SEP	-0.0199	0.9803	0.0163	1.0165
OCT	0.0116	1.0117	0.0339***	1.0345***
NOV	0.0293**	1.0297**	0.0144	1.0145
DEC	-0.0196	0.9806	-0.0059	0.9941
wage	-0.6038***	0.5467***	0.6613***	1.9373***
independent	-0.025***	0.9753***	0.0085***	1.0086***
			-	
tax	-1.0212***	0.3602***	0.6052***	0.546***
			-	
NX	0.0209***	1.0211***	0.0984***	0.9063***
			-	
nine_ending	0.0566***	1.0582***	0.0169***	0.9832***
zero_ending	0.1456***	1.1568***	0.0324***	1.0329***
sales	0.3602***	1.4337***	0.391***	1.4785***
market_share	0.0142***	1.0143***	0.0212***	1.0215***
			-	
increase_increase	-0.1462***	0.864***	0.2054***	0.8144***
			-	
increase_decrease	-0.026***	0.9743***	0.0326***	0.9679***
			-	
decrease_decrease	-0.0218***	0.9784***	0.0318***	0.9687***
			-	
oil	0.1029***	1.1084***	0.1332***	0.8753***
oil_1	0.0012***	1.0012***	-0.0002	0.9998
oil_2	-0.0002	0.9998	-0.0004	0.9996
oil_3	-0.0012***	0.9988***	0.0003	1.0003
oil_4	-0.0006**	0.9994**	0.0004	1.0004
oil_5	-0.001***	0.999***	0	1
oil_6	-0.0014***	0.9986***	-0.0003	0.9997
			-	
oil_7	-0.0003	0.9997	0.0008***	0.9992***
			-	
oil_8	-0.0008***	0.9992***	0.0009***	0.9991***
oil_9	-0.0009***	0.9991***	-0.0004	0.9996
oil_10	-0.0014***	0.9986***	0.001***	1.001***
oil_11	-0.0006**	0.9994**	0.0002	1.0002
oil_12	-0.0016***	0.9984***	-0.0002	0.9998
inflation_1	1.7679*	5.8584*	-1.0085	0.3648
inflation_2	2.4055**	11.084**	-0.7771	0.4597
inflation_3	3.2381***	25.486***	0.5672	1.7633
inflation_4	3.3851***	29.5223***	-0.6941	0.4995
		1367.8361*		
inflation_5	7.221***	**	0.7681	2.1556

inflation_6	6.3588***	577.5617***	-0.2804	0.7554
		4459.3833*		
inflation_7	8.4028***	**	0.2104	1.2342
inflation_8	5.8528***	348.2011***	0.335	1.3979
inflation_9	5.8861***	359.982***	-0.8485	0.428
inflation_10	2.0594*	7.8415*	-0.323	0.724
inflation_11	4.2282***	68.5961***	-2.792***	0.0613***
inflation_12	2.5833**	13.2401**	-1.1529	0.3157
			-	
R	0.2949***	1.343***	0.1836***	0.8323***
R_1	0.0047***	1.0047***	-0.0002	0.9998
R_2	0.007***	1.007***	-0.001***	0.999***
			-	
R_3	-0.0012*	0.9988*	0.0011***	0.9989***
			-	
R_4	-0.0005	0.9995	0.0009***	0.9991***
R_5	-0.0024***	0.9976***	-0.0001	0.9999
			-	
R_6	0.0062***	1.0062***	0.0008***	0.9992***
R_7	0.0043***	1.0043***	0.0002	1.0002
R_8	0.0055***	1.0055***	0.0019***	1.0019***
R_9	0.004***	1.004***	0.0017***	1.0017***
R_10	0.0077***	1.0077***	0.0018***	1.0018***
R_11	0.0078***	1.0078***	0.0024***	1.0025***
R_12	0.0042***	1.0042***	0.0019***	1.0019***
Food/Non_alcoholic_inflation_1	0.5514	1.7357	1.4213***	4.1425***
Food/Non_alcoholic_inflation_2	0.7726**	2.1653**	2.8769***	17.7593***
Food/Non_alcoholic_inflation_3	-0.3542	0.7018	2.0833***	8.031***
Food/Non_alcoholic_inflation_4	-0.0793	0.9237	1.4456***	4.2444***
Food/Non_alcoholic_inflation_5	0.6461*	1.9081*	1.6186***	5.0462***
			-	
Food/Non_alcoholic_inflation_6	3.5163***	33.6593***	2.1484***	0.1167***
Food/Non_alcoholic_inflation_7	0.0686	1.071	-0.6444*	0.525*
Food/Non_alcoholic_inflation_8	-0.658*	0.5179*	0.2245	1.2517
			-	
Food/Non_alcoholic_inflation_9	-0.2239	0.7994	0.9958***	0.3694***
			-	
Food/Non_alcoholic_inflation_10	1.4383***	4.2137***	1.8791***	0.1527***
Food/Non_alcoholic_inflation_11	-0.1753	0.8392	-0.2941	0.7452
			-	
Food/Non_alcoholic_inflation_12	-0.1196	0.8873	1.2429***	0.2886***
			-	
Alcoholic_inflation_1	1.6098***	5.0019***	2.9641***	0.0516***
			-	
Alcoholic_inflation_2	-0.0265	0.9738	2.6893***	0.0679***

Alcoholic_inflation_3	-1.1586***	0.3139***	1.6124***	0.1994***
Alcoholic_inflation_4	1.5648***	4.7816***	1.4718***	0.2295***
Alcoholic_inflation_5	4.2856***	72.6455***	-0.4324*	0.6489*
Alcoholic_inflation_6	2.6578***	14.2643***	0.5794**	1.785**
Alcoholic_inflation_7	1.6788***	5.3589***	0.0894	1.0935
Alcoholic_inflation_8	0.8126*	2.2537*	1.0632***	0.3453***
Alcoholic_inflation_9	-1.0598**	0.3465**	1.1834***	0.3062***
Alcoholic_inflation_10	1.2394***	3.4535***	0.137	1.1468
Alcoholic_inflation_11	0.8007*	2.2271*	-0.0365	0.9642
Alcoholic_inflation_12	-3.5731***	0.0281***	1.0697***	0.3431***
Energy_inflation_1	-0.1408	0.8687	-0.0624	0.9395
Energy_inflation_2	-0.0945	0.9098	-0.205	0.8147
Energy_inflation_3	-1.4905***	0.2253***	0.1926	1.2125
Energy_inflation_4	0.5679***	1.7645***	0.6019***	1.8256***
Energy_inflation_5	0.3928**	1.4811**	1.0995***	3.0026***
Energy_inflation_6	0.8436***	2.3247***	0.9069***	2.4766***
Energy_inflation_7	0.5585***	1.748***	0.7765***	2.1739***
Energy_inflation_8	-0.0671	0.9351	0.4693***	1.5989***
Energy_inflation_9	0.068	1.0704	0.3781***	0.6852***
Energy_inflation_10	0.8585***	2.3596***	-0.2511*	0.7779*
Energy_inflation_11	1.3624***	3.9054***	0.7229***	2.0605***
Energy_inflation_12	0.832***	2.298***	0.4276***	1.5335***
Non_energy_goods_inflation_1	1.9021***	6.6997***	-0.3162	0.7289
Non_energy_goods_inflation_2	1.0894***	2.9724***	0.9224***	2.5153***
Non_energy_goods_inflation_3	0.0256	1.0259	-0.0955	0.9089
Non_energy_goods_inflation_4	0.1258	1.1341	1.0842***	0.3382***
Non_energy_goods_inflation_5	0.1621	1.176	2.2673***	0.1036***
Non_energy_goods_inflation_6	0.066	1.0683	2.4313***	0.0879***
Non_energy_goods_inflation_7	0.7337***	2.0828***	1.5654***	0.209***
Non_energy_goods_inflation_8	0.4922*	1.6359*	-0.6077**	0.5446**
Non_energy_goods_inflation_9	0.6471**	1.91**	1.2903***	0.2752***
Non_energy_goods_inflation_10	0.2298	1.2583	2.2022***	0.1106***
Non_energy_goods_inflation_11	-0.1463	0.8639	3.1628***	0.0423***

Non_energy_goods_inflation_12	0.1748	1.191	1.7877***	0.1673***
Housing_services_inflation_1	-9.6792***	0.0001***	4.5126***	91.1621***
Housing_services_inflation_2	11.0903***	0***	8.9517***	7720.9333***
Housing_services_inflation_3	-3.81***	0.0221***	*	**
Housing_services_inflation_4	0.7132	2.0405	3.4573***	31.7308***
Housing_services_inflation_5	-8.5059***	0.0002***	5.3245***	205.3141***
Housing_services_inflation_6	-4.9495***	0.0071***	-2.2175**	0.1089**
Housing_services_inflation_7	-4.3129***	0.0134***	3.9361***	0.0195***
Housing_services_inflation_8	0.7803	2.1822	-1.5831	0.2053
Housing_services_inflation_9	-0.9746	0.3773	1.7317	5.65
Housing_services_inflation_10	-2.9412***	0.0528***	-2.7043**	0.0669**
Housing_services_inflation_11	-4.5124***	0.011***	*	**
Housing_services_inflation_12	-3.1829***	0.0415***	6.3256***	558.7206***
Transport/travel_services_inflation_1	-1.8518***	0.1569***	0.5088**	1.6633**
Transport/travel_services_inflation_2	-0.0627	0.9392	0.2918	1.3388
Transport/travel_services_inflation_3	1.9284***	6.8787***	1.6317***	5.1124***
Transport/travel_services_inflation_4	0.7334**	2.0822**	1.1495***	3.1566***
Transport/travel_services_inflation_5	-0.7623**	0.4666**	0.52**	1.682**
Transport/travel_services_inflation_6	-0.2901	0.7482	1.2624***	3.5338***
Transport/travel_services_inflation_7	-0.0867	0.9169	0.2172	1.2426
Transport/travel_services_inflation_8	-0.7868**	0.4553**	-0.3934*	0.6747*
Transport/travel_services_inflation_9	-0.4321	0.6491	0.3265	1.3861
Transport/travel_services_inflation_10	-0.3311	0.7181	0.6108***	1.8419***
Transport/travel_services_inflation_11	-0.3283	0.7201	1.2544***	3.5058***
Transport/travel_services_inflation_12	0.7319**	2.079**	1.1342***	3.1088***
Communication_inflation_1	0.5157	1.6748	0.884***	2.4205***
Communication_inflation_2	-0.6729*	0.5102*	0.2663	1.3052
Communication_inflation_3	-3.3071***	0.0366***	2.2372***	9.3673***
Communication_inflation_4	-0.063	0.9389	3.1124***	22.4743***
Communication_inflation_5	-0.3338	0.7162	2.7911***	16.2992***
Communication_inflation_6	-0.7246**	0.4845**	3.3133***	27.4755***
Communication_inflation_7	1.4311***	4.1833***	3.8925***	49.031***
Communication_inflation_8	-1.9173***	0.147***	0.9716***	2.6421***
Communication_inflation_9	0.5453	1.7251	2.7208***	15.192***
Communication_inflation_10	1.8475***	6.3443***	2.3537***	10.524***
Communication_inflation_11	1.8875***	6.6026***	2.4251***	11.3034***
Communication_inflation_12	1.5694***	4.8039***	0.6749**	1.9639**
Recreational/personal_services_inflation_1	-3.9552***	0.0192***	*	**

Recreational/personal_services_inflation_2	-0.874	0.4173	15.0441**	3416500***
Recreational/personal_services_inflation_3	7.5768***	1952.3893*	7.4339***	1692.4394***
Recreational/personal_services_inflation_4	4.1146***	61.2296***	11.433***	92320.3122*
Recreational/personal_services_inflation_5	12.5334***	277440***	14.0617**	1279100***
Recreational/personal_services_inflation_6	1.787	5.9714	4.7974***	121.1934***
Recreational/personal_services_inflation_7	3.0067**	20.2202**	3.6197***	37.3255***
Recreational/personal_services_inflation_8	8.6831***	5902.427***	11.2693**	78380.6241*
Recreational/personal_services_inflation_9	7.2653***	1429.8767*	6.2421***	513.9269***
Recreational/personal_services_inflation_10	0.9806	2.666	6.0265***	414.275***
Recreational/personal_services_inflation_11	-0.9851	0.3734	10.1069**	24511.4627*
Recreational/personal_services_inflation_12	-9.7628***	0.0001***	10.7272**	45577.6539*
Miscellaneous_services_inflation_1	-1.9879***	0.137***	1.7332**	5.6588**
Miscellaneous_services_inflation_2	-1.6779**	0.1868**	2.8066***	16.5536***
Miscellaneous_services_inflation_3	-0.6024	0.5475	2.1143***	8.2835***
Miscellaneous_services_inflation_4	-2.6712***	0.0692***	-	0.0238***
Miscellaneous_services_inflation_5	1.8054***	6.0821***	3.7399***	0.0023***
Miscellaneous_services_inflation_6	-1.4504**	0.2345**	6.0846***	0.0383***
Miscellaneous_services_inflation_7	-4.6566***	0.0095***	3.2628***	0.0113***
Miscellaneous_services_inflation_8	-2.6767***	0.0688***	4.4871***	0.0123***
Miscellaneous_services_inflation_9	-1.0058	0.3658	-4.398***	0.0255***
Miscellaneous_services_inflation_10	-3.2603***	0.0384***	3.6708***	0.0118***
Miscellaneous_services_inflation_11	10.5098***	0***	4.4428***	0.0078***
Miscellaneous_services_inflation_12	-2.4125***	0.0896***	-4.854***	0.0024***
Food/Non_alcoholic_expenditure	-0.112	0.8941	-6.019***	0.9994
Alcoholic_expenditure	0.0168	1.0169	-0.0006	1.0229
Energy_expenditure	-0.0582**	0.9435**	0.0226	0.9837
Non_energy_goods_expenditure	0.7168***	2.0479***	-0.0164	0.9976
Housing_services_expenditure	1.2242***	3.4015***	-0.0024	1.0553
Transport/travel_services_expenditure	0.3494***	1.4183***	0.0539	1.006

Communication_expenditure	-1.3699***	0.2541***	-0.0701**	0.9323**
Recreational/personal_services_expenditure	-0.2733**	0.7609**	-0.0089	0.9912
Miscellaneous_services_expenditure	0.6022***	1.8262***	-0.0598*	0.942*

Non-Energy Goods		
without sales	full sample	
	coef	H.R.
SE	0.053***	1.0544***
SW	0.0225***	1.0228***
East_Anglia	0.0178***	1.018***
East_Midlands	0.016***	1.0161***
West_Midlands	0.0231***	1.0233***
Yorks_Humber	0.0149***	1.015***
NW	0.0409***	1.0418***
North	-0.0138***	0.9863***
Wales	-0.0215***	0.9787***
Scotland	0.0307***	1.0312***
NI	0.0127**	1.0128**
FEB	-0.0368***	0.9639***
MAR	0.0062	1.0062
APR	-0.0186**	0.9815**
MAY	0.0235***	1.0238***
JUN	-0.0072	0.9928
JUL	0.0267***	1.027***
AUG	-0.0094	0.9906
SEP	0.0465***	1.0476***
OCT	0.0269***	1.0273***
NOV	0.0904***	1.0947***
DEC	0.005	1.005
wage	1.4909***	4.4409***
independent	0.0054**	1.0054**
tax	-0.6715***	0.511***
NX	-0.0326***	0.9679***
nine_ending	0.036***	1.0366***
zero_ending	0.0432***	1.0441***
market_share	0.0178***	1.0179***
increase_increase	-0.2021***	0.817***
increase_decrease	-0.0349***	0.9657***
decrease_decrease	-0.057***	0.9446***
oil	-0.0181	0.982

oil_1	0.0009***	1.0009***
oil_2	0.0009***	1.0009***
oil_3	0	1
oil_4	0.0008***	1.0008***
oil_5	0.0004**	1.0004**
oil_6	-0.0001	0.9999
oil_7	0.0001	1.0001
oil_8	-0.0008***	0.9992***
oil_9	-0.0002	0.9998
oil_10	-0.0005***	0.9995***
oil_11	-0.0007***	0.9993***
oil_12	-0.0006***	0.9994***
inflation_1	0.4372	1.5484
inflation_2	1.1793*	3.2522*
inflation_3	2.146***	8.5508***
inflation_4	1.4808**	4.3966**
inflation_5	-0.4106	0.6632
inflation_6	-0.1218	0.8853
inflation_7	0.3883	1.4744
inflation_8	0.5664	1.7619
inflation_9	-1.8868***	0.1516***
inflation_10	-0.9366	0.3919
inflation_11	-3.9825***	0.0186***
inflation_12	-0.5041	0.6041
R	-0.1453***	0.8648***
R_1	-0.0004**	0.9996**
R_2	0.0001	1.0001
R_3	-0.0016***	0.9984***
R_4	-0.0018***	0.9982***
R_5	-0.0016***	0.9984***
R_6	-0.0005**	0.9995**
R_7	-0.0002	0.9998
R_8	0.0009***	1.0009***
R_9	-0.0002	0.9998
R_10	0.0005**	1.0005**
R_11	0.0011***	1.0011***
R_12	0.0009***	1.0009***
Food/Non_alcoholic_inflation_1	0.4236*	1.5275*
Food/Non_alcoholic_inflation_2	2.7028***	14.921***
Food/Non_alcoholic_inflation_3	-0.7372***	0.4784***
Food/Non_alcoholic_inflation_4	2.1516***	8.5984***
Food/Non_alcoholic_inflation_5	0.4553*	1.5766*
Food/Non_alcoholic_inflation_6	1.3731***	3.9475***

Food/Non_alcoholic_inflation_7	-1.0138***	0.3628***
Food/Non_alcoholic_inflation_8	-0.101	0.9039
Food/Non_alcoholic_inflation_9	-1.5087***	0.2212***
Food/Non_alcoholic_inflation_10	-0.3595	0.698
Food/Non_alcoholic_inflation_11	0.6161***	1.8517***
Food/Non_alcoholic_inflation_12	-0.0452	0.9558
Alcoholic_inflation_1	-1.3944***	0.248***
Alcoholic_inflation_2	-2.2336***	0.1071***
Alcoholic_inflation_3	-1.0934***	0.3351***
Alcoholic_inflation_4	-0.8604***	0.423***
Alcoholic_inflation_5	-0.7256***	0.484***
Alcoholic_inflation_6	-0.4753**	0.6217**
Alcoholic_inflation_7	0.1922	1.2119
Alcoholic_inflation_8	1.1891***	3.2842***
Alcoholic_inflation_9	-0.8333***	0.4346***
Alcoholic_inflation_10	-0.0352	0.9654
Alcoholic_inflation_11	-0.6926***	0.5003***
Alcoholic_inflation_12	-1.0822***	0.3388***
Energy_inflation_1	0.3505***	1.4198***
Energy_inflation_2	-0.2271**	0.7969**
Energy_inflation_3	0.1182	1.1255
Energy_inflation_4	0.6322***	1.8818***
Energy_inflation_5	1.0236***	2.7831***
Energy_inflation_6	1.638***	5.1447***
Energy_inflation_7	1.6349***	5.1291***
Energy_inflation_8	0.5181***	1.6789***
Energy_inflation_9	0.159*	1.1723*
Energy_inflation_10	0.6092***	1.839***
Energy_inflation_11	0.2648***	1.3031***
Energy_inflation_12	-0.4778***	0.6202***
Non_energy_goods_inflation_1	0.7437***	2.1037***
Non_energy_goods_inflation_2	0.4952**	1.6408**
Non_energy_goods_inflation_3	-0.7646***	0.4655***
Non_energy_goods_inflation_4	-0.8801***	0.4148***
Non_energy_goods_inflation_5	-0.6644***	0.5146***
Non_energy_goods_inflation_6	-0.0899	0.914
Non_energy_goods_inflation_7	0.1427	1.1534
Non_energy_goods_inflation_8	0.1004	1.1056
Non_energy_goods_inflation_9	-0.4531**	0.6356**
Non_energy_goods_inflation_10	-0.9881***	0.3723***
Non_energy_goods_inflation_11	-0.5195**	0.5948**
Non_energy_goods_inflation_12	0.5854***	1.7958***
Housing_services_inflation_1	0.4385	1.5504

Housing_services_inflation_2	2.8686***	17.612***
Housing_services_inflation_3	0.7363	2.0882
Housing_services_inflation_4	3.3901***	29.6685***
Housing_services_inflation_5	3.865***	47.7042***
Housing_services_inflation_6	2.0371***	7.6686***
Housing_services_inflation_7	-1.3414***	0.2615***
Housing_services_inflation_8	1.3823***	3.9842***
Housing_services_inflation_9	0.645	1.9061
Housing_services_inflation_10	-0.1685	0.845
Housing_services_inflation_11	5.5717***	262.8726***
Housing_services_inflation_12	3.1067***	22.348***
Transport/travel_services_inflation_1	-1.0159***	0.3621***
Transport/travel_services_inflation_2	0.1118	1.1183
Transport/travel_services_inflation_3	1.9458***	6.9994***
Transport/travel_services_inflation_4	-0.0341	0.9665
Transport/travel_services_inflation_5	0.8064***	2.2398***
Transport/travel_services_inflation_6	-0.323*	0.7239*
Transport/travel_services_inflation_7	-0.0511	0.9502
Transport/travel_services_inflation_8	-0.3191*	0.7268*
Transport/travel_services_inflation_9	0.8078***	2.243***
Transport/travel_services_inflation_10	1.441***	4.2249***
Transport/travel_services_inflation_11	0.6166***	1.8527***
Transport/travel_services_inflation_12	1.0614***	2.8903***
Communication_inflation_1	2.4777***	11.9144***
Communication_inflation_2	1.8427***	6.3134***
Communication_inflation_3	1.4894***	4.4343***
Communication_inflation_4	0.4821**	1.6194**
Communication_inflation_5	2.0214***	7.5489***
Communication_inflation_6	3.1663***	23.7206***
Communication_inflation_7	1.2998***	3.6685***
Communication_inflation_8	0.5313***	1.7011***
Communication_inflation_9	2.0339***	7.6435***
Communication_inflation_10	1.5283***	4.6103***
Communication_inflation_11	0.9383***	2.5558***
Communication_inflation_12	-0.1163	0.8903
Recreational/personal_services_inflation_1	5.4097***	223.5566***
Recreational/personal_services_inflation_2	9.5133***	13539.0728***
Recreational/personal_services_inflation_3	9.5166***	13583.2566***
Recreational/personal_services_inflation_4	5.6219***	276.4143***
Recreational/personal_services_inflation_5	6.3995***	601.571***
Recreational/personal_services_inflation_6	1.1444	3.1406
Recreational/personal_services_inflation_7	1.6521**	5.218**
Recreational/personal_services_inflation_8	5.5409***	254.9135***

Recreational/personal_services_inflation_9	4.3071***	74.2222***
Recreational/personal_services_inflation_10	1.5475**	4.6997**
Recreational/personal_services_inflation_11	7.2014***	1341.2938***
Recreational/personal_services_inflation_12	1.3413*	3.8241*
Miscellaneous_services_inflation_1	-1.0621**	0.3457**
Miscellaneous_services_inflation_2	-0.2437	0.7837
Miscellaneous_services_inflation_3	-3.5545***	0.0286***
Miscellaneous_services_inflation_4	-2.7487***	0.064***
Miscellaneous_services_inflation_5	-2.4421***	0.087***
Miscellaneous_services_inflation_6	-4.9731***	0.0069***
Miscellaneous_services_inflation_7	-5.7222***	0.0033***
Miscellaneous_services_inflation_8	-7.9438***	0.0004***
Miscellaneous_services_inflation_9	-6.0805***	0.0023***
Miscellaneous_services_inflation_10	-6.9173***	0.001***
Miscellaneous_services_inflation_11	-10.3065***	0***
Miscellaneous_services_inflation_12	-7.218***	0.0007***
Food/Non_alcoholic_expenditure	1.7779***	5.9174***
Alcoholic_expenditure	-0.1518***	0.8592***
Energy_expenditure	-0.0244	0.9759
Non_energy_goods_expenditure	-1.9148***	0.1474***
Housing_services_expenditure	0.9411***	2.5627***
Transport/travel_services_expenditure	1.632***	5.1142***
Communication_expenditure	-0.4939***	0.6102***
Recreational/personal_services_expenditure	1.1027***	3.0123***
Miscellaneous_services_expenditure	-0.515***	0.5975***

Non-Energy Goods Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0845***	1.0882***	0.0443***	1.0453***
SW	0.0332***	1.0338***	0.0293***	1.0297***
East_Anglia	0.0254***	1.0257***	0.0212***	1.0214***
East_Midlands	0.0151**	1.0152**	0.0193***	1.0195***
West_Midlands	0.0309***	1.0313***	0.0219***	1.0222***
Yorks_Humber	0.031***	1.0315***	0.0116**	1.0117**
NW	0.036***	1.0366***	0.0432***	1.0441***
			-	
North	-0.0065	0.9935	0.0223***	0.978***
Wales	-0.0309***	0.9695***	-0.0109*	0.9891*
Scotland	0.0406***	1.0415***	0.0201***	1.0203***
NI	-0.0184**	0.9818**	0.0174***	1.0175***

FEB	-0.0625***	0.9394***	-0.0216*	0.9786*
MAR	0.0344**	1.035**	-0.0197	0.9805
APR	0.0205	1.0207	-0.0193	0.9809
MAY	0.033**	1.0335**	0.0217	1.0219
JUN	0.0328**	1.0334**	-0.0165	0.9836
JUL	0.0186	1.0188	0.0077	1.0078
AUG	-0.0215	0.9787	0.0105	1.0105
SEP	0.0161	1.0162	0.033***	1.0335***
OCT	0.0138	1.0139	0.0381***	1.0388***
NOV	0.0486***	1.0498***	0.0515***	1.0528***
DEC	-0.0188	0.9814	0.0131	1.0132
wage	-1.5005***	0.223***	1.3988***	4.0505***
independent	-0.0388***	0.962***	0.0358***	1.0364***
tax	-0.2641**	0.7679**	0.9107***	0.4022***
NX	0.0066***	1.0066***	0.1942***	0.8235***
nine_ending	0.0931***	1.0976***	-0.018***	0.9821***
zero_ending	0.0945***	1.0991***	-0.0014	0.9986
market_share	0.0129***	1.013***	0.0204***	1.0206***
increase_increase	-0.1944***	0.8233***	-0.224***	0.7993***
increase_decrease	-0.0717***	0.9308***	0.0273***	0.9731***
decrease_decrease	-0.0617***	0.9401***	0.0424***	0.9584***
oil	0.02	1.0202	0.0179	1.0181
oil_1	0.0005	1.0005	0	1
oil_2	-0.0002	0.9998	0.0003	1.0003
oil_3	-0.001***	0.999***	0.0007**	1.0007**
oil_4	-0.0007**	0.9993**	0	1
oil_5	-0.0011***	0.9989***	-0.0002	0.9998
oil_6	-0.0007*	0.9993*	0.0009***	0.9991***
oil_7	0.0007**	1.0007**	0	1
oil_8	-0.0002	0.9998	-0.001***	0.999***
oil_9	0.0002	1.0002	0.0008**	1.0008**
oil_10	-0.0012***	0.9988***	0.0016***	1.0016***
oil_11	-0.0008**	0.9992**	0.0006*	1.0006*
oil_12	-0.0011***	0.9989***	-0.0004	0.9996
inflation_1	2.8127**	16.6542**	-1.1968	0.3022
inflation_2	5.1738***	176.5775**	-2.387**	0.0919**
inflation_3	0.5782	1.7827	-0.328	0.7204
inflation_4	2.2427*	9.419*	-0.3048	0.7373

inflation_5	4.4519***	85.7921***	1.2292	3.4183
		192.8273**		
inflation_6	5.2618***	*	1.2009	3.3231
		2425.276**		
inflation_7	7.7937***	*	-0.1886	0.8281
		148.6289**		
inflation_8	5.0015***	*	-1.1715	0.3099
		-		
inflation_9	3.7711***	43.4257***	3.7884***	0.0226***
inflation_10	1.2203	3.3881	-1.2878	0.2759
		-		
inflation_11	-0.0645	0.9376	3.4656***	0.0313***
inflation_12	0.8869	2.4275	-0.7117	0.4908
		-		
R	0.1535*	1.1659*	0.1968***	0.8214***
R_1	0.0038***	1.0038***	-0.0006*	0.9994*
		-		
R_2	0.0075***	1.0075***	0.0014***	0.9986***
		-		
R_3	-0.0048***	0.9952***	0.0021***	0.9979***
		-		
R_4	0.0006	1.0006	0.0023***	0.9977***
R_5	-0.0034***	0.9966***	-0.0007**	0.9993**
		-		
R_6	0.0067***	1.0067***	0.0018***	0.9982***
R_7	0.0052***	1.0052***	-0.0004	0.9996
R_8	0.0089***	1.0089***	0.0007**	1.0007**
R_9	0.0049***	1.0049***	0.0003	1.0003
R_10	0.0114***	1.0115***	0.0002	1.0002
R_11	0.012***	1.0121***	0.0013***	1.0013***
R_12	0.0059***	1.0059***	0.0017***	1.0017***
Food/Non_alcoholic_inflation_1	-0.5184	0.5955	1.8287***	6.2257***
Food/Non_alcoholic_inflation_2	2.092***	8.1008***	2.3649***	10.6426***
Food/Non_alcoholic_inflation_3	1.5855***	4.8817***	1.7194***	5.581***
Food/Non_alcoholic_inflation_4	0.3757	1.4561	0.8629*	2.37*
Food/Non_alcoholic_inflation_5	1.5063***	4.5101***	-0.3814	0.6829
Food/Non_alcoholic_inflation_6	4.0917***	59.8395***	-3.558***	0.0285***
		-		
Food/Non_alcoholic_inflation_7	1.2528***	3.5001***	1.1813***	0.3069***
		-		
Food/Non_alcoholic_inflation_8	0.3102	1.3637	1.9935***	0.1362***
		-		
Food/Non_alcoholic_inflation_9	-1.5817***	0.2056***	2.4041***	0.0903***
		-		
Food/Non_alcoholic_inflation_10	0.8132*	2.2551*	2.6533***	0.0704***
Food/Non_alcoholic_inflation_11	-0.5431	0.581	-0.2283	0.7959

Food/Non_alcoholic_inflation_12	0.3937	1.4825	-0.5815	0.5591
Alcoholic_inflation_1	4.5506***	94.6887***	3.1304***	0.0437***
Alcoholic_inflation_2	3.0017***	20.1192***	2.7565***	0.0635***
Alcoholic_inflation_3	-1.2883***	0.2757***	1.2869***	0.2761***
Alcoholic_inflation_4	0.7855	2.1936	1.2284***	0.2928***
Alcoholic_inflation_5	2.9631***	19.3573***	-0.0326	0.968
Alcoholic_inflation_6	4.9352***	139.0941**	0.4841*	1.6227*
Alcoholic_inflation_7	2.627***	13.8318***	0.1376	1.1475
Alcoholic_inflation_8	4.09***	59.738***	-0.6112**	0.5427**
Alcoholic_inflation_9	0.6753	1.9646	1.2923***	0.2746***
Alcoholic_inflation_10	1.5202***	4.5733***	-0.688***	0.5026***
Alcoholic_inflation_11	0.891*	2.4377*	1.3748***	0.2529***
Alcoholic_inflation_12	-3.1896***	0.0412***	1.0749***	0.3413***
Energy_inflation_1	0.9155***	2.498***	0.0416	1.0425
Energy_inflation_2	0.4193**	1.5209**	-0.2518*	0.7774*
Energy_inflation_3	-0.5387***	0.5835***	0.0986	1.1036
Energy_inflation_4	0.7637***	2.1462***	0.7215***	2.0575***
Energy_inflation_5	1.1611***	3.1934***	1.3089***	3.7021***
Energy_inflation_6	0.9688***	2.6347***	1.3753***	3.9564***
Energy_inflation_7	0.9008***	2.4615***	1.385***	3.9947***
Energy_inflation_8	-0.2837	0.753	0.4269***	1.5326***
Energy_inflation_9	0.0998	1.1049	0.4555***	0.6341***
Energy_inflation_10	1.2331***	3.4317***	-0.2179	0.8042
Energy_inflation_11	1.1175***	3.0572***	0.1804	1.1977
Energy_inflation_12	0.6911***	1.9959***	0.3452**	1.4123**
Non_energy_goods_inflation_1	1.5438***	4.6824***	0.5292*	1.6975*
Non_energy_goods_inflation_2	1.3238***	3.7575***	1.3548***	3.8758***
Non_energy_goods_inflation_3	-0.1551	0.8563	0.4004	1.4924
Non_energy_goods_inflation_4	-0.1022	0.9029	1.1177***	0.327***
Non_energy_goods_inflation_5	-0.5929*	0.5527*	2.6916***	0.0678***
Non_energy_goods_inflation_6	0.2963	1.3448	1.3211***	0.2669***
Non_energy_goods_inflation_7	0.679**	1.972**	-1.262***	0.2831***
Non_energy_goods_inflation_8	0.5552*	1.7423*	-0.5292	0.5891
Non_energy_goods_inflation_9	0.5041	1.6555	-	0.3936***

			0.9323***	
			-	
Non_energy_goods_inflation_10	0.461	1.5857	1.8558***	0.1563***
			-	
Non_energy_goods_inflation_11	-0.6002*	0.5487*	2.5869***	0.0753***
			-	
Non_energy_goods_inflation_12	0.1209	1.1285	1.2143***	0.2969***
			11.3428**	84353.2835*
Housing_services_inflation_1	-9.8274***	0.0001***	*	**
			10.7036**	44513.7908*
Housing_services_inflation_2	-9.0028***	0.0001***	*	**
			11.3289**	83194.8224*
Housing_services_inflation_3	-5.0259***	0.0066***	*	**
Housing_services_inflation_4	0.7929	2.2097	3.5561***	35.0257***
Housing_services_inflation_5	-6.4424***	0.0016***	8.211***	3681.3515***
Housing_services_inflation_6	-3.3427***	0.0353***	3.279***	26.5483***
Housing_services_inflation_7	-4.2467***	0.0143***	1.5561	4.7403
Housing_services_inflation_8	0.9524	2.5919	3.847***	46.8539***
Housing_services_inflation_9	-2.5189***	0.0805***	4.8021***	121.7627***
Housing_services_inflation_10	-4.2906***	0.0137***	-1.2149	0.2967
Housing_services_inflation_11	-2.2165**	0.109**	9.9099***	20128.282***
Housing_services_inflation_12	-2.7087***	0.0666***	6.6932***	806.8904***
Transport/travel_services_inflation_1	-2.6088***	0.0736***	-0.3149	0.7298
Transport/travel_services_inflation_2	-0.5111	0.5998	0.1301	1.139
Transport/travel_services_inflation_3	1.9355***	6.9277***	1.3856***	3.9972***
Transport/travel_services_inflation_4	1.3992***	4.0518***	0.9402***	2.5604***
Transport/travel_services_inflation_5	0.3704	1.4483	0.5248**	1.69**
Transport/travel_services_inflation_6	-1.7731***	0.1698***	0.5524**	1.7373**
Transport/travel_services_inflation_7	-0.2692	0.764	0.288	1.3338
Transport/travel_services_inflation_8	-0.7926**	0.4527**	-0.48*	0.6188*
Transport/travel_services_inflation_9	0.2256	1.253	0.2115	1.2355
Transport/travel_services_inflation_10	0.3113	1.3652	0.8484***	2.336***
Transport/travel_services_inflation_11	0.1295	1.1382	1.1944***	3.3016***
Transport/travel_services_inflation_12	1.2102***	3.3541***	0.8883***	2.4309***
Communication_inflation_1	1.2412***	3.4597***	0.6246*	1.8675*
Communication_inflation_2	0.7383*	2.0924*	0.3177	1.374
Communication_inflation_3	-3.3388***	0.0355***	1.9596***	7.0966***
Communication_inflation_4	-1.1299**	0.3231**	1.5711***	4.8122***
Communication_inflation_5	-1.2008**	0.301**	1.4865***	4.4218***
Communication_inflation_6	-0.1245	0.8829	3.0424***	20.9555***
Communication_inflation_7	2.0687***	7.9147***	2.1917***	8.9501***
Communication_inflation_8	-1.6391***	0.1942***	-0.0111	0.9889
Communication_inflation_9	1.685***	5.3922***	1.1801***	3.2548***
Communication_inflation_10	0.7627*	2.1441*	0.6703**	1.9548**

Communication_inflation_11	0.3978	1.4885	1.1981***	3.314***
Communication_inflation_12	-0.6404	0.5271	0.7229**	2.0604**
Recreational/personal_services_inflation_1	-7.7847***	0.0004***	15.0432**	3413300***
Recreational/personal_services_inflation_2	-3.0133**	0.0491**	14.7222**	2476100***
Recreational/personal_services_inflation_3	-1.142	0.3192	8.4103***	4492.9577***
Recreational/personal_services_inflation_4	-3.3104**	0.0365**	10.7113**	44859.167***
Recreational/personal_services_inflation_5	6.521***	679.2718**	*	101420***
Recreational/personal_services_inflation_6	-2.5695*	0.0766*	11.527***	22.3165**
Recreational/personal_services_inflation_7	-2.8732**	0.0565**	3.1053**	28.8753***
Recreational/personal_services_inflation_8	3.6356**	37.926**	3.363***	416.5483***
Recreational/personal_services_inflation_9	5.1877***	179.0537**	6.032***	0.4406
Recreational/personal_services_inflation_10	-2.4882	*	-0.8196	0.4406
Recreational/personal_services_inflation_11	-1.135	0.0831	0.8721	2.392
Recreational/personal_services_inflation_12	-1.135	0.3214	5.3753***	216.0069***
Miscellaneous_services_inflation_1	-9.0794***	0.0001***	4.7734***	118.3154***
Miscellaneous_services_inflation_2	0.0204	1.0206	1.3264	3.7676
Miscellaneous_services_inflation_3	-1.0968	0.3339	0.7052	2.0243
Miscellaneous_services_inflation_4	-1.7301**	0.1773**	2.9613***	19.3224***
Miscellaneous_services_inflation_5	-3.2519***	0.0387***	-1.8662**	0.1547**
Miscellaneous_services_inflation_6	-0.6877	0.5028	-1.6003*	0.2018*
Miscellaneous_services_inflation_7	-1.2874	0.276	-0.1791	0.836
Miscellaneous_services_inflation_8	-2.7746***	0.0624***	-0.5148	0.5976
Miscellaneous_services_inflation_9	-3.4335***	0.0323***	-1.3654	0.2553
Miscellaneous_services_inflation_10	-3.5467***	0.0288***	-1.307	0.2706
Miscellaneous_services_inflation_10	-4.2606***	0.0141***	-2.566***	0.0768***
Miscellaneous_services_inflation_11	-	0***	-3.99***	0.0185***
Miscellaneous_services_inflation_12	12.7397***	0***	-	0.0185***
Food/Non_alcoholic_expenditure	-6.6809***	0.0013***	4.2818***	0.0138***
Alcoholic_expenditure	-1.5418***	0.214***	0.5984***	1.8193***
Energy_expenditure	-2.5375***	0.0791***	-	0.9149***
Non_energy_goods_expenditure	0.9849***	2.6775***	0.0889***	1.233***
Housing_services_expenditure	-0.2157	0.8059	0.2094***	0.173***
Housing_services_expenditure	-2.173***	0.1138***	-	6.5537***

Transport/travel_services_expenditure	4.1398***	62.7893***	3.4171***	30.4817***
Communication_expenditure	-1.5849***	0.205***	1.4699***	0.23***
Recreational/personal_services_expenditure	0.625*	1.8683*	0.2609	1.2981
Miscellaneous_services_expenditure	-0.6373***	0.5287***	-0.654***	0.52***

Housing Services		
with sales	full sample	
	coef	H.R.
SE	0.1019***	1.1072***
SW	-0.0659***	0.9362***
East_Anglia	0.007	1.0071
East_Midlands	-0.0221	0.9781
West_Midlands	-0.0356***	0.965***
Yorks_Humber	0.0552***	1.0568***
NW	-0.0324***	0.9681***
North	-0.0862***	0.9175***
Wales	-0.0959***	0.9085***
Scotland	-0.066***	0.9362***
NI	-0.1084***	0.8973***
FEB	-0.0461*	0.9549*
MAR	0.0341	1.0347
APR	-0.03	0.9704
MAY	0.0466	1.0477
JUN	0.0421	1.043
JUL	0.0149	1.015
AUG	-0.0211	0.9791
SEP	-0.0125	0.9876
OCT	0.0238	1.0241
NOV	0.09***	1.0941***
DEC	0.0076	1.0076
wage	0.0813***	1.0847***
independent	0.2224***	1.2491***
tax	-0.4179***	0.6584***
NX	-0.0364***	0.9642***
nine_ending	-0.0668***	0.9354***
zero_ending	-0.0022	0.9978
sales	0.5303***	1.6995***
market_share	-0.0077	0.9924
increase_increase	-0.4407***	0.6436***
increase_decrease	-0.2111***	0.8097***

decrease_decrease	-0.0105	0.9896
oil	-0.0058	0.9942
oil_1	0.0015***	1.0015***
oil_2	0.0026***	1.0026***
oil_3	-0.0005	0.9995
oil_4	0.0017***	1.0017***
oil_5	0.0001	1.0001
oil_6	0.0002	1.0002
oil_7	-0.0011*	0.9989*
oil_8	-0.0016***	0.9984***
oil_9	-0.0021***	0.9979***
oil_10	-0.0002	0.9998
oil_11	-0.0023***	0.9977***
oil_12	-0.0016***	0.9984***
inflation_1	3.6564*	38.7227*
inflation_2	3.7955*	44.5007*
inflation_3	4.6273**	102.2355**
inflation_4	4.7433**	114.8079**
inflation_5	-1.8171	0.1625
inflation_6	1.7272	5.6248
inflation_7	-1.3659	0.2551
inflation_8	3.5634	35.2843
inflation_9	0.8917	2.4393
inflation_10	-0.9729	0.378
inflation_11	-4.212*	0.0148*
inflation_12	0.1138	1.1206
R	-0.1068	0.8987
R_1	-0.0011	0.9989
R_2	0.0013	1.0013
R_3	-0.0021***	0.9979***
R_4	-0.0028***	0.9972***
R_5	-0.0033***	0.9967***
R_6	0.0003	1.0003
R_7	-0.001	0.999
R_8	0.0004	1.0004
R_9	-0.0001	0.9999
R_10	-0.0011	0.9989
R_11	0.003***	1.003***
R_12	-0.0004	0.9996
Food/Non_alcoholic_inflation_1	-0.0593	0.9425
Food/Non_alcoholic_inflation_2	2.9271***	18.6733***
Food/Non_alcoholic_inflation_3	0.3398	1.4047
Food/Non_alcoholic_inflation_4	2.8348***	17.0271***

Food/Non_alcoholic_inflation_5	-0.597	0.5505
Food/Non_alcoholic_inflation_6	2.813***	16.6606***
Food/Non_alcoholic_inflation_7	-1.424*	0.2407*
Food/Non_alcoholic_inflation_8	-0.3808	0.6833
Food/Non_alcoholic_inflation_9	-0.4776	0.6203
Food/Non_alcoholic_inflation_10	-1.916***	0.1472***
Food/Non_alcoholic_inflation_11	-1.4781**	0.2281**
Food/Non_alcoholic_inflation_12	0.217	1.2424
Alcoholic_inflation_1	-2.3677***	0.0937***
Alcoholic_inflation_2	-0.142	0.8676
Alcoholic_inflation_3	-0.0501	0.9511
Alcoholic_inflation_4	2.5925***	13.3629***
Alcoholic_inflation_5	1.9759***	7.2134***
Alcoholic_inflation_6	2.1598***	8.6698***
Alcoholic_inflation_7	1.4427**	4.2323**
Alcoholic_inflation_8	3.4242***	30.6981***
Alcoholic_inflation_9	-0.2509	0.7781
Alcoholic_inflation_10	-0.3797	0.6841
Alcoholic_inflation_11	0.0057	1.0057
Alcoholic_inflation_12	-0.6028	0.5473
Energy_inflation_1	0.2383	1.2691
Energy_inflation_2	-0.419	0.6577
Energy_inflation_3	-0.7865***	0.4554***
Energy_inflation_4	-0.3425	0.71
Energy_inflation_5	0.5849**	1.7948**
Energy_inflation_6	0.6362**	1.8893**
Energy_inflation_7	0.3975	1.4881
Energy_inflation_8	-0.658**	0.5179**
Energy_inflation_9	0.0423	1.0432
Energy_inflation_10	0.0461	1.0472
Energy_inflation_11	0.8045***	2.2355***
Energy_inflation_12	-0.111	0.895
Non_energy_goods_inflation_1	0.3083	1.3611
Non_energy_goods_inflation_2	-1.2659*	0.282*
Non_energy_goods_inflation_3	0.3493	1.4181
Non_energy_goods_inflation_4	-0.8342	0.4342
Non_energy_goods_inflation_5	0.6726	1.9594
Non_energy_goods_inflation_6	-0.6457	0.5243
Non_energy_goods_inflation_7	-1.4547**	0.2335**
Non_energy_goods_inflation_8	1.2729*	3.5711*
Non_energy_goods_inflation_9	0.3893	1.476
Non_energy_goods_inflation_10	0.7381	2.092
Non_energy_goods_inflation_11	0.0391	1.0399

Non_energy_goods_inflation_12	-0.3402	0.7116
Housing_services_inflation_1	-0.8873	0.4117
Housing_services_inflation_2	0.867	2.3797
Housing_services_inflation_3	-0.9084	0.4032
Housing_services_inflation_4	-1.0381	0.3541
Housing_services_inflation_5	-2.5934*	0.0748*
Housing_services_inflation_6	4.2137***	67.6051***
Housing_services_inflation_7	-1.6077	0.2004
Housing_services_inflation_8	-6.4035***	0.0017***
Housing_services_inflation_9	1.4854	4.4169
Housing_services_inflation_10	4.1076**	60.7983**
Housing_services_inflation_11	4.0556**	57.7194**
Housing_services_inflation_12	-4.4731***	0.0114***
Transport/travel_services_inflation_1	-2.7637***	0.0631***
Transport/travel_services_inflation_2	-0.0452	0.9558
Transport/travel_services_inflation_3	1.9355***	6.9275***
Transport/travel_services_inflation_4	0.3677	1.4443
Transport/travel_services_inflation_5	0.6864	1.9865
Transport/travel_services_inflation_6	-0.6095	0.5436
Transport/travel_services_inflation_7	-0.0066	0.9934
Transport/travel_services_inflation_8	-0.1928	0.8246
Transport/travel_services_inflation_9	0.9178	2.5037
Transport/travel_services_inflation_10	0.2036	1.2258
Transport/travel_services_inflation_11	-0.0489	0.9523
Transport/travel_services_inflation_12	-0.8505	0.4272
Communication_inflation_1	0.4985	1.6462
Communication_inflation_2	-1.2928**	0.2745**
Communication_inflation_3	2.222***	9.2261***
Communication_inflation_4	0.4934	1.6378
Communication_inflation_5	2.8185***	16.7524***
Communication_inflation_6	1.6932***	5.4366***
Communication_inflation_7	1.4407**	4.2236**
Communication_inflation_8	-1.5581***	0.2105***
Communication_inflation_9	-3.8443***	0.0214***
Communication_inflation_10	-0.4268	0.6526
Communication_inflation_11	1.0156*	2.7609*
Communication_inflation_12	-2.0574***	0.1278***
Recreational/personal_services_inflation_1	5.256**	191.7098**
Recreational/personal_services_inflation_2	1.149	3.155
Recreational/personal_services_inflation_3	3.4004	29.9748
Recreational/personal_services_inflation_4	-0.755	0.47
Recreational/personal_services_inflation_5	4.9314**	138.5784**
Recreational/personal_services_inflation_6	-1.0655	0.3446

Recreational/personal_services_inflation_7	-4.892**	0.0075**
Recreational/personal_services_inflation_8	2.2019	9.0425
Recreational/personal_services_inflation_9	8.1997***	3639.7038***
Recreational/personal_services_inflation_10	12.0134***	164950***
Recreational/personal_services_inflation_11	11.8642***	142090***
Recreational/personal_services_inflation_12	9.0638***	8637.036***
Miscellaneous_services_inflation_1	-4.4641***	0.0115***
Miscellaneous_services_inflation_2	0.2178	1.2433
Miscellaneous_services_inflation_3	1.1206	3.0668
Miscellaneous_services_inflation_4	1.4795	4.391
Miscellaneous_services_inflation_5	0.8757	2.4005
Miscellaneous_services_inflation_6	-4.2277***	0.0146***
Miscellaneous_services_inflation_7	-4.7092***	0.009***
Miscellaneous_services_inflation_8	-5.5528***	0.0039***
Miscellaneous_services_inflation_9	-4.7987***	0.0082***
Miscellaneous_services_inflation_10	-6.0911***	0.0023***
Miscellaneous_services_inflation_11	-4.7055***	0.009***
Miscellaneous_services_inflation_12	-7.179***	0.0008***
Food/Non_alcoholic_expenditure	0.0497	1.0509
Alcoholic_expenditure	0.4706***	1.6009***
Energy_expenditure	0.0187	1.0189
Non_energy_goods_expenditure	-0.1116	0.8944
Housing_services_expenditure	0.5485***	1.7306***
Transport/travel_services_expenditure	-0.3458***	0.7077***
Communication_expenditure	-0.398***	0.6717***
Recreational/personal_services_expenditure	-0.1431	0.8667
Miscellaneous_services_expenditure	-0.018	0.9822

Housing Services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0605***	1.0624***	0.1026***	1.108***
SW	-0.0718***	0.9307***	-0.0377*	0.963*
East_Anglia	-0.029	0.9714	0.0616***	1.0635***
East_Midlands	-0.0555***	0.946***	0.0344	1.035
West_Midlands	-0.0624***	0.9395***	-0.0121	0.9879
Yorks_Humber	0.0524***	1.0538***	0.0299	1.0304
NW	-0.0631***	0.9389***	0.0045	1.0045
North	-0.0587**	0.943**	-0.105***	0.9003***
Wales	-0.0927***	0.9115***	-0.0852***	0.9184***
Scotland	-0.0483**	0.9529**	-0.0462**	0.9549**

NI	-0.0842***	0.9192***	-0.0477*	0.9534*
FEB	-0.0056	0.9944	-0.0377	0.963
MAR	0.0724*	1.0751*	-0.069	0.9333
APR	-0.0189	0.9812	-0.0305	0.97
MAY	0.0442	1.0452	0.0346	1.0352
JUN	0.0221	1.0223	0.0749	1.0777
JUL	-0.0217	0.9785	0.0164	1.0165
AUG	-0.0193	0.9809	-0.0454	0.9557
SEP	-0.0375	0.9632	0.0066	1.0066
OCT	0.019	1.0192	0.1206**	1.1282**
NOV	0.0055	1.0055	0.1092**	1.1154**
DEC	0.0022	1.0022	-0.0457	0.9553
wage	-0.0789***	0.0169***	0.2588***	1.2954***
independent	0.1929***	1.2128***	0.2249***	1.2522***
tax	-1.2178***	0.2959***	-0.4439***	0.6415***
NX	0.021***	1.0212***	-0.0943***	0.91***
nine_ending	-0.0764***	0.9264***	-0.0934***	0.9108***
zero_ending	0.082***	1.0854***	-0.1028***	0.9023***
sales	0.5307***	1.7001***	0.5133***	1.6709***
market_share	0.0199**	1.0201**	-0.0095	0.9905
increase_increase	-0.4527***	0.6359***	-0.3515***	0.7036***
increase_decrease	-0.1604***	0.8518***	-0.2159***	0.8058***
decrease_decrease	0.0072	1.0072	0.0307	1.0311
oil	0.0654	1.0676	-0.1137	0.8925
oil_1	0.0009	1.0009	0.0053***	1.0054***
oil_2	-0.0005	0.9995	0.0017	1.0017
oil_3	-0.0023**	0.9977**	0.0004	1.0004
oil_4	-0.0002	0.9998	0.0007	1.0007
oil_5	-0.0005	0.9995	0.0001	1.0001
oil_6	-0.0001	0.9999	0.0005	1.0005
oil_7	-0.0027***	0.9973***	-0.0017	0.9983
oil_8	-0.002*	0.998*	-0.0034***	0.9966***
oil_9	-0.0029***	0.9971***	-0.0028**	0.9972**
oil_10	-0.0018*	0.9982*	0.0016	1.0016
oil_11	-0.0043***	0.9957***	0.0024*	1.0024*
oil_12	-0.0007	0.9993	-0.002	0.998
inflation_1	2.0968	8.1405	-1.6653	0.1891
inflation_2	2.2922	9.8966	2.1954	8.984
inflation_3	5.5434	255.5396	2.3859	10.8687
inflation_4	8.7922**	6582.7826**	-0.432	0.6492
inflation_5	5.3051	201.3537	0.4736	1.6057
inflation_6	7.1119**	1226.4617**	6.1084*	449.63*
inflation_7	13.9384**	1130800***	-2.5336	0.0794

	*			
	12.5883**			
inflation_8	*	293110***	-1.3121	0.2693
inflation_9	7.7503**	2322.3396**	-2.8037	0.0606
inflation_10	6.4466*	630.5419*	-2.967	0.0515
		11165.8811*		
inflation_11	9.3206**	*	-2.8067	0.0604
inflation_12	3.0534	21.1866	-2.7049	0.0669
R	0.151	1.163	-0.3086***	0.7345***
R_1	0.0057**	1.0057**	-0.0023**	0.9977**
R_2	0.0071***	1.0071***	-0.0014	0.9986
R_3	-0.006**	0.994**	0.001	1.001
R_4	0.0002	1.0002	-0.0053***	0.9947***
R_5	-0.0061***	0.994***	-0.0014	0.9986
R_6	0.0056**	1.0056**	0.0015	1.0015
R_7	0.005**	1.005**	-0.0007	0.9993
R_8	0.0062***	1.0062***	-0.0001	0.9999
R_9	0.0008	1.0008	0.0022**	1.0022**
R_10	0.0038	1.0038	0.0007	1.0007
R_11	0.0119***	1.0119***	0.0004	1.0004
R_12	-0.0007	0.9993	0	1
Food/Non_alcoholic_inflation_1	-0.3384	0.7129	1.0633	2.896
Food/Non_alcoholic_inflation_2	1.5135	4.5426	0.6702	1.9546
Food/Non_alcoholic_inflation_3	-1.0666	0.3442	3.7266**	41.5375**
Food/Non_alcoholic_inflation_4	0.5073	1.6607	6.6153***	746.3993***
Food/Non_alcoholic_inflation_5	1.7578	5.7994	0.6048	1.831
Food/Non_alcoholic_inflation_6	1.7163	5.5641	-1.1819	0.3067
Food/Non_alcoholic_inflation_7	0.0783	1.0815	-0.9924	0.3707
Food/Non_alcoholic_inflation_8	0.4755	1.6088	-0.4658	0.6276
Food/Non_alcoholic_inflation_9	-1.214	0.297	-1.291	0.275
Food/Non_alcoholic_inflation_10	0.9016	2.4635	-3.1707**	0.042**
Food/Non_alcoholic_inflation_11	0.5904	1.8047	-2.9416**	0.0528**
Food/Non_alcoholic_inflation_12	0.686	1.9858	-0.9093	0.4028
Alcoholic_inflation_1	2.6988*	14.8626*	-5.745***	0.0032***
Alcoholic_inflation_2	0.8801	2.4111	-0.9913	0.3711
Alcoholic_inflation_3	-1.8258	0.1611	1.1116	3.0391
Alcoholic_inflation_4	3.1864**	24.2013**	2.4367**	11.4356**
Alcoholic_inflation_5	6.7635***	865.7067***	0.0217	1.022
Alcoholic_inflation_6	4.8225***	124.2704***	1.3506	3.8596
Alcoholic_inflation_7	4.6749***	107.224***	0.9659	2.6271
Alcoholic_inflation_8	4.6111***	100.5943***	0.5775	1.7816
Alcoholic_inflation_9	-2.4701*	0.0846*	0.991	2.6938
Alcoholic_inflation_10	2.7538*	15.7029*	-1.2664	0.2819

Alcoholic_inflation_11	-1.4945	0.2244	-0.1658	0.8472
Alcoholic_inflation_12	-0.3056	0.7367	-2.488***	0.0831***
Energy_inflation_1	0.9493*	2.5839*	0.0737	1.0765
Energy_inflation_2	-0.2446	0.783	0.4036	1.4972
Energy_inflation_3	-1.3207***	0.2669***	0.3835	1.4674
Energy_inflation_4	-0.3279	0.7204	0.3898	1.4766
Energy_inflation_5	0.7112	2.0365	0.9125*	2.4906*
Energy_inflation_6	0.9352*	2.5478*	1.0466**	2.8479**
Energy_inflation_7	-0.1776	0.8373	-0.0103	0.9898
Energy_inflation_8	-0.3195	0.7265	-0.2833	0.7533
Energy_inflation_9	-0.3857	0.68	-0.0797	0.9234
Energy_inflation_10	2.0008***	7.3951***	-1.3452**	0.2605**
Energy_inflation_11	2.2943***	9.9173***	0.896*	2.4498*
Energy_inflation_12	1.346***	3.842***	0.4059	1.5007
Non_energy_goods_inflation_1	1.3937	4.0297	1.0017	2.7228
Non_energy_goods_inflation_2	1.0149	2.759	-1.4218	0.2413
Non_energy_goods_inflation_3	1.3999	4.0547	-0.4362	0.6465
Non_energy_goods_inflation_4	0.3575	1.4298	-1.279	0.2783
Non_energy_goods_inflation_5	0.7675	2.1543	-2.3001*	0.1003*
Non_energy_goods_inflation_6	0.5279	1.6954	-3.073***	0.0463***
Non_energy_goods_inflation_7	1.0755	2.9314	-3.3875***	0.0338***
Non_energy_goods_inflation_8	1.1683	3.2164	-0.6189	0.5385
Non_energy_goods_inflation_9	1.4307	4.1815	-0.9945	0.3699
Non_energy_goods_inflation_10	0.4991	1.6473	0.4004	1.4924
Non_energy_goods_inflation_11	0.5515	1.7358	-1.8608	0.1555
Non_energy_goods_inflation_12	0.3593	1.4323	-1.4959	0.2241
Housing_services_inflation_1	-3.3702	0.0344	-3.3569	0.0348
Housing_services_inflation_2	-7.6077***	0.0005***	-2.1075	0.1215
	-			
	11.3621**			
Housing_services_inflation_3	*	0***	8.6572*	5751.3762*
	-			
	11.0814**			
Housing_services_inflation_4	*	0***	6.1915	488.5557
	-			
	14.0915**			
Housing_services_inflation_5	*	0***	5.0869	161.8883
Housing_services_inflation_6	-4.0673*	0.0171*	-3.1428	0.0432
Housing_services_inflation_7	-5.3155**	0.0049**	8.932**	7570.5218**
Housing_services_inflation_8	-1.4416	0.2366	-8.7655*	0.0002*
Housing_services_inflation_9	-1.282	0.2775	-1.8633	0.1552
Housing_services_inflation_10	0.5169	1.6768	4.5134	91.2342
			22.3828**	5256600000*
Housing_services_inflation_11	-2.4703	0.0846	*	**

Housing_services_inflation_12	-7.0952***	0.0008***	2.2024	9.0463
Transport/travel_services_inflation_1	-1.5111	0.2207	-2.567***	0.0768***
Transport/travel_services_inflation_2	-0.6194	0.5382	0.6748	1.9636
Transport/travel_services_inflation_3	1.7442	5.7216	0.4108	1.5081
Transport/travel_services_inflation_4	2.0916**	8.0979**	0.5183	1.6791
Transport/travel_services_inflation_5	-2.0564*	0.1279*	0.1838	1.2018
Transport/travel_services_inflation_6	-0.187	0.8294	0.0697	1.0722
Transport/travel_services_inflation_7	2.9212***	18.5628***	-1.3202	0.2671
Transport/travel_services_inflation_8	-0.2824	0.7539	-0.113	0.8931
Transport/travel_services_inflation_9	-0.775	0.4607	0.6982	2.0101
Transport/travel_services_inflation_10	-0.2094	0.811	-0.288	0.7498
Transport/travel_services_inflation_11	-1.5338	0.2157	1.2299	3.4208
Transport/travel_services_inflation_12	1.0484	2.853	-2.0938**	0.1232**
Communication_inflation_1	-1.9156*	0.1473*	0.0767	1.0797
Communication_inflation_2	-1.8874	0.1515	-2.0327	0.131
Communication_inflation_3	-0.96	0.3829	1.3148	3.724
Communication_inflation_4	-0.5569	0.573	3.1674**	23.7458**
Communication_inflation_5	-3.5627***	0.0284***	4.9204***	137.0637***
Communication_inflation_6	0.198	1.219	4.0684***	58.4662***
Communication_inflation_7	2.2189**	9.1968**	5.902***	365.7759***
Communication_inflation_8	-2.4143**	0.0894**	-0.1545	0.8569
Communication_inflation_9	-1.9255*	0.1458*	-1.5642	0.2093
Communication_inflation_10	-1.4811	0.2274	2.9732**	19.5543**
Communication_inflation_11	2.5227**	12.4622**	3.0061**	20.2082**
Communication_inflation_12	3.0549***	21.2183***	0.0864	1.0903
Recreational/personal_services_inflation_1	9.1044**	8994.5573**	6.4749	648.6354
Recreational/personal_services_inflation_2	6.7476	852.0348	0.9517	2.5901
Recreational/personal_services_inflation_3	6.117	453.508	-1.0413	0.353
Recreational/personal_services_inflation_4	3.4673	32.0506	-2.2832	0.102
Recreational/personal_services_inflation_5	4.9832	145.9382	14.0022**	1205200***
Recreational/personal_services_inflation_6	-0.7868	0.4553	10.3385**	30898.3667*
Recreational/personal_services_inflation_7	2.8214	16.8003	-1.9194	0.1467
Recreational/personal_services_inflation_8	11.0922**	65655.1047*	-0.859	0.4236
Recreational/personal_services_inflation_9	0.3451	1.4121	5.6941	297.1157
Recreational/personal_services_inflation_10	1.1887	3.2828	15.1248**	3703600***

Recreational/personal_services_inflatio n_11	6.2985	543.7517	7.6384*	2076.5026*
Recreational/personal_services_inflatio n_12	3.413	30.3565	7.7942*	2426.5847*
Miscellaneous_services_inflation_1	-8.5907***	0.0002***	-3.8637	0.021
Miscellaneous_services_inflation_2	-1.6282	0.1963	-0.0561	0.9454
			15.7776**	
Miscellaneous_services_inflation_3	-2.7997	0.0608	*	7113900***
Miscellaneous_services_inflation_4	-3.7157	0.0243	4.4752	87.8128
Miscellaneous_services_inflation_5	-2.8586	0.0574	-0.5634	0.5693
Miscellaneous_services_inflation_6	-3.4985	0.0302	-0.6888	0.5022
			-	
			10.3812**	
Miscellaneous_services_inflation_7	-1.5655	0.209	*	0***
Miscellaneous_services_inflation_8	-2.5261	0.08	-6.6829**	0.0013**
Miscellaneous_services_inflation_9	4.0237*	55.9075*	-9.6293***	0.0001***
Miscellaneous_services_inflation_10	-4.0711*	0.0171*	-12.316***	0***
Miscellaneous_services_inflation_11	-7.6966***	0.0005***	-0.8127	0.4437
Miscellaneous_services_inflation_12	-2.702	0.0671	-3.842	0.0214
Food/Non_alcoholic_expenditure	0.3554	1.4267	0.0547	1.0562
Alcoholic_expenditure	0.4848	1.6239	0.1119	1.1184
Energy_expenditure	-0.0482	0.953	0.018	1.0181
Non_energy_goods_expenditure	0.9575	2.6051	-0.0021	0.9979
Housing_services_expenditure	2.2719***	9.6975***	0.0535	1.055
Transport/travel_services_expenditure	0.268	1.3074	-0.1759	0.8387
Communication_expenditure	-1.5447**	0.2134**	-0.1594	0.8527
Recreational/personal_services_expend iture	0.0605	1.0624	-0.0665	0.9357
Miscellaneous_services_expenditure	0.5549	1.7418	-0.0356	0.9651

Housing Services		
	without sales	full sample
		coef H.R.
SE		0.1375*** 1.1474***
SW		-0.0985*** 0.9062***
East_Anglia		-0.017 0.9832
East_Midlands		-0.0304* 0.97*
West_Midlands		-0.0484*** 0.9528***
Yorks_Humber		0.0762*** 1.0791***
NW		-0.0352** 0.9654**
North		-0.13*** 0.8781***
Wales		-0.1368*** 0.8721***

Scotland	-0.0866***	0.917***
NI	-0.213***	0.8082***
FEB	-0.033	0.9676
MAR	0.0351	1.0358
APR	0.0249	1.0252
MAY	0.0217	1.022
JUN	0.0146	1.0147
JUL	0.017	1.0171
AUG	-0.0338	0.9668
SEP	0.0313	1.0318
OCT	0.0834**	1.087**
NOV	0.0927**	1.0971**
DEC	0.0241	1.0244
wage	1.3722**	3.9441**
independent	0.1167***	1.1238***
tax	-0.7572***	0.469***
NX	-0.0568***	0.9448***
nine_ending	-0.0547***	0.9468***
zero_ending	-0.0573***	0.9443***
market_share	-0.0097	0.9904
increase_increase	-0.5362***	0.585***
increase_decrease	-0.2825***	0.7539***
decrease_decrease	-0.0615***	0.9404***
oil	-0.0471	0.954
oil_1	0.0005	1.0005
oil_2	0.0032***	1.0032***
oil_3	0.0013*	1.0013*
oil_4	0.0012*	1.0012*
oil_5	-0.0006	0.9994
oil_6	-0.0007	0.9993
oil_7	-0.0016**	0.9984**
oil_8	-0.0001	0.9999
oil_9	-0.0021***	0.9979***
oil_10	0.0004	1.0004
oil_11	-0.0023***	0.9977***
oil_12	-0.0017**	0.9983**
inflation_1	4.2802	72.2541
inflation_2	3.7434	42.2421
inflation_3	2.4998	12.1801
inflation_4	2.8408	17.1302
inflation_5	2.2929	9.9036
inflation_6	1.3529	3.8687
inflation_7	-0.8252	0.4381

inflation_8	0.7863	2.1953
inflation_9	-1.4102	0.2441
inflation_10	-4.7534*	0.0086*
inflation_11	-7.6752***	0.0005***
inflation_12	-1.9234	0.1461
R	-0.1853*	0.8309*
R_1	-0.0023**	0.9977**
R_2	0.0002	1.0002
R_3	-0.004***	0.996***
R_4	-0.0052***	0.9948***
R_5	-0.0013	0.9987
R_6	-0.001	0.999
R_7	-0.0017	0.9983
R_8	0.0018*	1.0018*
R_9	0.0013	1.0013
R_10	-0.0024**	0.9976**
R_11	0.0019*	1.0019*
R_12	-0.002**	0.998**
Food/Non_alcoholic_inflation_1	0.6019	1.8256
Food/Non_alcoholic_inflation_2	4.1613***	64.1577***
Food/Non_alcoholic_inflation_3	0.6696	1.9535
Food/Non_alcoholic_inflation_4	0.6297	1.8771
Food/Non_alcoholic_inflation_5	-0.4919	0.6115
Food/Non_alcoholic_inflation_6	1.4984*	4.4746*
Food/Non_alcoholic_inflation_7	-2.6331***	0.0719***
Food/Non_alcoholic_inflation_8	-0.8021	0.4484
Food/Non_alcoholic_inflation_9	-2.2159**	0.1091**
Food/Non_alcoholic_inflation_10	-1.0943	0.3348
Food/Non_alcoholic_inflation_11	0.5102	1.6657
Food/Non_alcoholic_inflation_12	1.9168**	6.7989**
Alcoholic_inflation_1	-0.788	0.4548
Alcoholic_inflation_2	0.3422	1.4081
Alcoholic_inflation_3	0.2499	1.2838
Alcoholic_inflation_4	1.6207**	5.0569**
Alcoholic_inflation_5	0.8053	2.2374
Alcoholic_inflation_6	2.8188***	16.7559***
Alcoholic_inflation_7	0.7349	2.0853
Alcoholic_inflation_8	2.2774***	9.7515***
Alcoholic_inflation_9	-2.6939***	0.0676***
Alcoholic_inflation_10	0.426	1.5312
Alcoholic_inflation_11	-1.3972*	0.2473*
Alcoholic_inflation_12	-1.1276	0.3238
Energy_inflation_1	0.8673**	2.3805**

Energy_inflation_2	-0.086	0.9176
Energy_inflation_3	-0.9006**	0.4063**
Energy_inflation_4	-0.1282	0.8796
Energy_inflation_5	0.2654	1.3039
Energy_inflation_6	0.7911**	2.2058**
Energy_inflation_7	0.7726**	2.1653**
Energy_inflation_8	-0.7419**	0.4762**
Energy_inflation_9	-0.2033	0.816
Energy_inflation_10	0.1743	1.1904
Energy_inflation_11	1.1025***	3.0117***
Energy_inflation_12	0.5987*	1.8198*
Non_energy_goods_inflation_1	1.6786**	5.358**
Non_energy_goods_inflation_2	-1.3235*	0.2662*
Non_energy_goods_inflation_3	0.1501	1.162
Non_energy_goods_inflation_4	-0.6224	0.5367
Non_energy_goods_inflation_5	0.4809	1.6176
Non_energy_goods_inflation_6	0.462	1.5872
Non_energy_goods_inflation_7	-0.6541	0.5199
Non_energy_goods_inflation_8	1.2393	3.4531
Non_energy_goods_inflation_9	0.4494	1.5673
Non_energy_goods_inflation_10	1.3298	3.7805
Non_energy_goods_inflation_11	-0.1671	0.8462
Non_energy_goods_inflation_12	0.7044	2.0226
Housing_services_inflation_1	-0.6313	0.5319
Housing_services_inflation_2	1.7199	5.584
Housing_services_inflation_3	-1.7987	0.1655
Housing_services_inflation_4	-0.0281	0.9723
Housing_services_inflation_5	0.9387	2.5566
Housing_services_inflation_6	2.315	10.1249
Housing_services_inflation_7	0.9684	2.6338
Housing_services_inflation_8	-4.75**	0.0087**
Housing_services_inflation_9	2.3254	10.2309
Housing_services_inflation_10	4.0384*	56.7375*
Housing_services_inflation_11	8.0748***	3212.5589***
Housing_services_inflation_12	-4.6461**	0.0096**
Transport/travel_services_inflation_1	-2.5335***	0.0794***
Transport/travel_services_inflation_2	0.2114	1.2354
Transport/travel_services_inflation_3	2.6961***	14.8212***
Transport/travel_services_inflation_4	0.8886	2.4317
Transport/travel_services_inflation_5	0.7992	2.2238
Transport/travel_services_inflation_6	-0.958	0.3837
Transport/travel_services_inflation_7	0.6629	1.9404
Transport/travel_services_inflation_8	-0.139	0.8702

Transport/travel_services_inflation_9	1.3596*	3.8946*
Transport/travel_services_inflation_10	1.0689	2.9122
Transport/travel_services_inflation_11	-0.6652	0.5142
Transport/travel_services_inflation_12	0.7108	2.0357
Communication_inflation_1	2.4958***	12.1313***
Communication_inflation_2	-1.3984*	0.247*
Communication_inflation_3	3.4289***	30.8434***
Communication_inflation_4	2.0544***	7.8019***
Communication_inflation_5	3.1542***	23.4346***
Communication_inflation_6	1.6859**	5.3971**
Communication_inflation_7	1.6012**	4.9589**
Communication_inflation_8	0.2052	1.2278
Communication_inflation_9	-2.2416***	0.1063***
Communication_inflation_10	1.0665	2.9053
Communication_inflation_11	0.4379	1.5494
Communication_inflation_12	-2.3938***	0.0913***
Recreational/personal_services_inflation_1	-0.1379	0.8711
Recreational/personal_services_inflation_2	4.7417	114.6305
Recreational/personal_services_inflation_3	6.5629**	708.3032**
Recreational/personal_services_inflation_4	-0.4586	0.6322
Recreational/personal_services_inflation_5	1.3187	3.7385
Recreational/personal_services_inflation_6	-2.2374	0.1067
Recreational/personal_services_inflation_7	-4.8235*	0.008*
Recreational/personal_services_inflation_8	-0.2993	0.7414
Recreational/personal_services_inflation_9	6.7691**	870.5055**
Recreational/personal_services_inflation_10	6.0735**	434.1909**
Recreational/personal_services_inflation_11	4.589	98.3992
Recreational/personal_services_inflation_12	0.7096	2.0333
Miscellaneous_services_inflation_1	-4.1358**	0.016**
Miscellaneous_services_inflation_2	-6.0688***	0.0023***
Miscellaneous_services_inflation_3	-6.2103***	0.002***
Miscellaneous_services_inflation_4	-0.0037	0.9963
Miscellaneous_services_inflation_5	-1.9168	0.1471
Miscellaneous_services_inflation_6	-3.5413**	0.029**
Miscellaneous_services_inflation_7	-2.0729	0.1258
Miscellaneous_services_inflation_8	-6.4738***	0.0015***
Miscellaneous_services_inflation_9	-8.1789***	0.0003***
Miscellaneous_services_inflation_10	-9.4506***	0.0001***
Miscellaneous_services_inflation_11	-8.7434***	0.0002***
Miscellaneous_services_inflation_12	-7.8177***	0.0004***
Food/Non_alcoholic_expenditure	0.8432**	2.3239**
Alcoholic_expenditure	-0.1415	0.8681
Energy_expenditure	0.3215***	1.3792***

Non_energy_goods_expenditure	-0.5779	0.5611
Housing_services_expenditure	0.26	1.2969
Transport/travel_services_expenditure	2.6291***	13.8613***
Communication_expenditure	-0.9187***	0.399***
Recreational/personal_services_expenditure	0.7596	2.1375
Miscellaneous_services_expenditure	-0.845***	0.4296***

Housing Services Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0439**	1.0449**	0.1556***	1.1684***
SW	-0.0908***	0.9132***	-0.0786***	0.9244***
East_Anglia	-0.0373	0.9634	0.0268	1.0272
East_Midlands	-0.0404	0.9604	0.0053	1.0053
West_Midlands	-0.0965***	0.908***	0.0029	1.0029
Yorks_Humber	0.066***	1.0682***	0.0427*	1.0437*
NW	-0.0829***	0.9205***	0.0082	1.0083
North	-0.077**	0.9259**	-0.1706***	0.8432***
Wales	-0.1202***	0.8867***	-0.1465***	0.8637***
Scotland	-0.045*	0.956*	-0.0794***	0.9237***
NI	-0.1938***	0.8238***	-0.1414***	0.8681***
FEB	-0.0734	0.9292	-0.0035	0.9966
MAR	0.0445	1.0455	-0.0278	0.9726
APR	0.0027	1.0027	-0.0291	0.9713
MAY	0.0809	1.0843	-0.0015	0.9985
JUN	0.0243	1.0246	0.0224	1.0226
JUL	-0.0035	0.9965	0.025	1.0253
AUG	0.0144	1.0145	-0.0922	0.9119
SEP	0.0063	1.0063	0.0303	1.0307
OCT	0.0358	1.0364	0.0904	1.0946
NOV	0.0117	1.0118	0.1606**	1.1742**
DEC	-0.016	0.9841	-0.0042	0.9958
wage	-3.3589***	0.0348***	3.2626***	26.1179***
independent	0.0717***	1.0744***	0.1922***	1.2119***
tax	-0.0992	0.9056	-0.7392***	0.4775***
NX	-0.0061	0.9939	-0.2599***	0.7711***
nine_ending	-0.0199	0.9803	-0.0653***	0.9368***
zero_ending	-0.0063	0.9937	-0.109***	0.8967***
market_share	0.0193*	1.0195*	-0.02**	0.9802**
increase_increase	-0.5842***	0.5575***	-0.4408***	0.6435***
increase_decrease	-0.2505***	0.7784***	-0.2638***	0.7681***

decrease_decrease	-0.0356	0.965	-0.0456	0.9555
oil	-0.0261	0.9743	-0.1782	0.8367
oil_1	-0.0006	0.9994	0.0035**	1.0035**
oil_2	-0.0003	0.9997	0.0035***	1.0036***
oil_3	-0.0023*	0.9977*	0.0016	1.0016
oil_4	-0.0015	0.9985	0.0011	1.0011
oil_5	-0.0006	0.9994	-0.0003	0.9997
oil_6	-0.0006	0.9994	-0.0025*	0.9975*
oil_7	-0.0006	0.9994	-0.0009	0.9991
oil_8	-0.0011	0.9989	-0.0003	0.9997
oil_9	-0.0006	0.9994	-0.0015	0.9985
oil_10	-0.0015	0.9985	0.0012	1.0012
oil_11	-0.0053***	0.9948***	0.0022	1.0022
oil_12	-0.0008	0.9992	-0.0023	0.9977
inflation_1	3.4542	31.6342	2.4591	11.6948
inflation_2	2.3316	10.2942	-0.588	0.5555
inflation_3	5.2265	186.1365	2.337	10.3503
		6084.4432*		
inflation_4	8.7135**	*	-2.9335	0.0532
inflation_5	2.8022	16.4803	3.8598	47.4545
inflation_6	6.147	467.2985	3.2259	25.1764
	12.8801**			
inflation_7	*	392440***	-5.9394	0.0026
inflation_8	8.3491*	4226.4514*	-2.7812	0.062
inflation_9	4.4904	89.1552	-8.2846*	0.0003*
inflation_10	3.1583	23.5295	-4.868	0.0077
inflation_11	0.4443	1.5594	-4.0192	0.018
inflation_12	0.3725	1.4513	-5.4691	0.0042
R	-0.1454	0.8647	-0.4148***	0.6605***
R_1	0.0013	1.0013	-0.0051***	0.9949***
R_2	0.0089***	1.0089***	-0.0029**	0.9971**
R_3	-0.0097***	0.9903***	0	1
R_4	0.0006	1.0007	-0.009***	0.991***
R_5	-0.0043	0.9957	-0.0002	0.9998
R_6	0.0075***	1.0076***	-0.0004	0.9996
R_7	0.0093***	1.0094***	-0.0025*	0.9975*
R_8	0.0149***	1.0151***	-0.0006	0.9994
R_9	0.0025	1.0025	0.0008	1.0008
R_10	0.0061**	1.0062**	-0.0014	0.9986
R_11	0.0149***	1.015***	-0.0016	0.9984
R_12	0.0046	1.0046	-0.0017	0.9983
Food/Non_alcoholic_inflation_1	-0.4714	0.6241	2.7228	15.2225
Food/Non_alcoholic_inflation_2	2.6136*	13.6478*	2.1272	8.3913

Food/Non_alcoholic_inflation_3	0.4446	1.5599	2.8823	17.8549
Food/Non_alcoholic_inflation_4	0.1983	1.2194	3.48*	32.4591*
Food/Non_alcoholic_inflation_5	1.9085	6.7426	-0.2364	0.7894
Food/Non_alcoholic_inflation_6	1.7954	6.0221	-2.5352	0.0792
Food/Non_alcoholic_inflation_7	3.5241**	33.9243**	-3.6202**	0.0268**
Food/Non_alcoholic_inflation_8	1.6019	4.9626	-3.7489**	0.0235**
Food/Non_alcoholic_inflation_9	-4.5347***	0.0107***	-1.1672	0.3113
Food/Non_alcoholic_inflation_10	-0.65	0.5221	-2.4575	0.0856
Food/Non_alcoholic_inflation_11	0.6234	1.8652	-3.7995**	0.0224**
Food/Non_alcoholic_inflation_12	1.139	3.1237	0.5398	1.7156
Alcoholic_inflation_1	6.8758***	968.5375***	-5.0095***	0.0067***
Alcoholic_inflation_2	2.043	7.7139	-2.0242*	0.1321*
Alcoholic_inflation_3	2.8119	16.6412	-1.3859	0.2501
Alcoholic_inflation_4	3.1459*	23.2413*	0.4678	1.5965
Alcoholic_inflation_5	3.9423**	51.5356**	-0.0701	0.9323
		7134.8454*		
Alcoholic_inflation_6	8.8727***	**	0.3489	1.4175
Alcoholic_inflation_7	6.5607***	706.7849***	0.5917	1.807
Alcoholic_inflation_8	4.6646**	106.12**	-0.0067	0.9934
Alcoholic_inflation_9	-0.3792	0.6844	-1.6566	0.1908
Alcoholic_inflation_10	3.4672*	32.0461*	-1.3057	0.271
Alcoholic_inflation_11	-1.7029	0.1822	-0.9133	0.4012
Alcoholic_inflation_12	1.5434	4.6807	-2.3616**	0.0943**
Energy_inflation_1	2.7364***	15.4306***	0.2358	1.2659
Energy_inflation_2	0.8671	2.38	-0.1408	0.8687
Energy_inflation_3	-0.1837	0.8322	-0.34	0.7117
Energy_inflation_4	-0.4104	0.6634	0.0615	1.0635
Energy_inflation_5	1.0384	2.8246	0.4377	1.5492
Energy_inflation_6	0.8834	2.4191	0.1328	1.142
Energy_inflation_7	0.5531	1.7386	0.4488	1.5665
Energy_inflation_8	0.0244	1.0247	-0.7219	0.4858
Energy_inflation_9	-0.5744	0.563	-0.5648	0.5685
Energy_inflation_10	2.0911***	8.0935***	-1.6839***	0.1856***
Energy_inflation_11	3.007***	20.2268***	0.2384	1.2692
Energy_inflation_12	1.659***	5.2539***	1.2199*	3.3868*
Non_energy_goods_inflation_1	1.0625	2.8937	2.6477*	14.1218*
Non_energy_goods_inflation_2	0.8724	2.3925	-1.2206	0.295
Non_energy_goods_inflation_3	1.357	3.8847	-0.6425	0.526
Non_energy_goods_inflation_4	0.2937	1.3414	-1.2668	0.2817
Non_energy_goods_inflation_5	-0.3922	0.6756	-1.1012	0.3325
Non_energy_goods_inflation_6	0.6963	2.0063	-2.8306*	0.059*
Non_energy_goods_inflation_7	0.986	2.6805	-3.7822**	0.0228**
Non_energy_goods_inflation_8	1.4372	4.2091	-1.347	0.26

Non_energy_goods_inflation_9	0.9499	2.5855	0.7875	2.198
Non_energy_goods_inflation_10	0.3209	1.3784	0.3869	1.4724
Non_energy_goods_inflation_11	0.3139	1.3687	-0.5207	0.5941
Non_energy_goods_inflation_12	0.5919	1.8074	-1.1532	0.3156
Housing_services_inflation_1	-6.3243*	0.0018*	-3.5211	0.0296
Housing_services_inflation_2	-3.8922	0.0204	-9.8855*	0.0001*
	-			
	12.6664**			
Housing_services_inflation_3	*	0***	7.8315	2518.675
Housing_services_inflation_4	-7.3447**	0.0006**	4.4223	83.287
Housing_services_inflation_5	-4.0579	0.0173	5.0457	155.3547
Housing_services_inflation_6	-2.5858	0.0753	0.9169	2.5015
			14.6488**	
Housing_services_inflation_7	-6.3896**	0.0017**	*	2300900***
Housing_services_inflation_8	-2.4953	0.0825	-1.8537	0.1567
Housing_services_inflation_9	-1.3374	0.2625	8.703	6020.792
Housing_services_inflation_10	1.2163	3.3746	6.8522	945.9899
			18.8511**	153790000**
Housing_services_inflation_11	3.8861	48.7181	*	*
Housing_services_inflation_12	-5.9542*	0.0026*	2.4351	11.4175
Transport/travel_services_inflation_1	-1.5911	0.2037	-2.0788*	0.1251*
Transport/travel_services_inflation_2	-1.4326	0.2387	0.6784	1.9708
Transport/travel_services_inflation_3	1.9202	6.8226	1.6572	5.2445
Transport/travel_services_inflation_4	2.1564*	8.6396*	1.6118	5.0118
Transport/travel_services_inflation_5	-0.0636	0.9384	0.527	1.6938
Transport/travel_services_inflation_6	-1.9149	0.1474	-0.2901	0.7482
Transport/travel_services_inflation_7	1.5667	4.7906	0.2199	1.246
Transport/travel_services_inflation_8	-1.495	0.2242	1.0766	2.9346
Transport/travel_services_inflation_9	0.1737	1.1897	0.3111	1.3649
Transport/travel_services_inflation_10	0.016	1.0162	1.6811	5.3713
Transport/travel_services_inflation_11	-1.8971	0.15	1.4684	4.3421
Transport/travel_services_inflation_12	2.298*	9.9544*	-0.7388	0.4777
Communication_inflation_1	-1.7732	0.1698	4.3883***	80.501***
Communication_inflation_2	-1.3833	0.2508	-0.1664	0.8467
Communication_inflation_3	1.3096	3.7047	0.0929	1.0974
Communication_inflation_4	-0.6328	0.5311	1.5624	4.7703
Communication_inflation_5	-1.6607	0.19	5.8052***	332.0072***
Communication_inflation_6	-0.9197	0.3986	3.6558**	38.6999**
Communication_inflation_7	3.6147***	37.1416***	1.8331	6.253
Communication_inflation_8	-1.1779	0.3079	-0.8602	0.4231
Communication_inflation_9	-1.1378	0.3205	-4.0377***	0.0176***
Communication_inflation_10	-0.6479	0.5231	1.9309	6.8959
Communication_inflation_11	-0.5619	0.5702	-1.4303	0.2392
Communication_inflation_12	-0.4758	0.6214	0.426	1.5311

Recreational/personal_services_inflation				
_1	2.1812	8.8565	13.3905**	653760**
Recreational/personal_services_inflation				
_2	7.5126	1830.928	6.5827	722.494
Recreational/personal_services_inflation				
_3	-5.4101	0.0045	12.2846**	216340**
Recreational/personal_services_inflation				
_4	-4.8426	0.0079	0.1682	1.1831
Recreational/personal_services_inflation				
_5	-2.2725	0.103	20.7851**	1063700000*
Recreational/personal_services_inflation				
_6	-2.2409	0.1064	12.131**	185540**
Recreational/personal_services_inflation				
_7	-1.0259	0.3585	2.6598	14.2936
Recreational/personal_services_inflation				
_8	-4.0749	0.017	-0.6013	0.5481
Recreational/personal_services_inflation				
_9	-2.7132	0.0663	10.0873*	24035.6152*
Recreational/personal_services_inflation				
_10	-4.3855	0.0125	3.1343	22.9722
Recreational/personal_services_inflation				
_11	0.6672	1.9488	0.8972	2.4527
Recreational/personal_services_inflation				
_12	-0.9087	0.4031	-7.6307	0.0005
Miscellaneous_services_inflation_1	-6.2551**	0.0019**	0.2919	1.339
Miscellaneous_services_inflation_2	-1.171	0.31	-3.0699	0.0464
Miscellaneous_services_inflation_3	-1.7671	0.1708	15.0924**	
Miscellaneous_services_inflation_4	-1.6888	0.1847	*	3585500***
Miscellaneous_services_inflation_5	-3.867	0.0209	6.3077	548.7991
Miscellaneous_services_inflation_6	3.7304	41.6974	2.9992	20.0695
Miscellaneous_services_inflation_7	-2.4911	0.0828	-3.8517	0.0212
Miscellaneous_services_inflation_8	-2.206	0.1101	-6.6402*	0.0013*
Miscellaneous_services_inflation_9	-0.4012	0.6695	-9.4539**	0.0001**
Miscellaneous_services_inflation_10	-6.5341**	0.0015**	14.5736**	
Miscellaneous_services_inflation_11	-8.2453***	0.0003***	*	0***
Miscellaneous_services_inflation_12	-2.4832	0.0835	-	
Food/Non_alcoholic_expenditure	-3.2825***	0.0375***	13.2934**	
Alcoholic_expenditure	-2.0589***	0.1276***	*	0***
Energy_expenditure	1.3237***	3.7573***	0.8166	2.2629
Non_energy_goods_expenditure	0.6068	1.8346	-0.1099	0.8959
Housing_services_expenditure	-2.4755***	0.0841***	0.7444***	2.1052***
			1.21015**	0.1223**
			1.7268***	5.6225***

Transport/travel_services_expenditure	4.8548***	128.3545***	4.1633***	64.282***
Communication_expenditure	-2.6713***	0.0692***	-2.2842***	0.1019***
Recreational/personal_services_expenditure	-0.3853	0.6802	-1.7008**	0.1825**
Miscellaneous_services_expenditure	-0.6318	0.5316	-0.6228*	0.5364*

Transport/Travel Services		
with sales	full sample	
	coef	H.R.
SE	-0.0022	0.9978
SW	-0.0589***	0.9428***
East_Anglia	-0.0928***	0.9114***
East_Midlands	-0.098***	0.9067***
West_Midlands	-0.0448*	0.9562*
Yorks_Humber	-0.1201***	0.8868***
NW	-0.021	0.9792
North	-0.0707**	0.9318**
Wales	-0.1004***	0.9045***
Scotland	-0.1101***	0.8958***
NI	-0.0707*	0.9318*
FEB	-0.0161	0.9841
MAR	0.1325**	1.1417**
APR	-0.003	0.997
MAY	-0.014	0.9861
JUN	0.0824	1.0859
JUL	0.1099**	1.1162**
AUG	0.0139	1.014
SEP	-0.0355	0.9651
OCT	0.0123	1.0124
NOV	0.0551	1.0566
DEC	-0.1496**	0.8611**
wage	-0.8117***	0.4441***
independent	0.2587***	1.2952***
tax	-0.9787***	0.3758***
NX	-0.0062	0.9938
nine_ending	0.0632**	1.0653**
zero_ending	-0.2476***	0.7806***
sales	0.0699	1.0724
market_share	0.0499***	1.0511***
increase_increase	-0.379***	0.6845***
increase_decrease	-0.0772***	0.9257***

decrease_decrease	-0.0374	0.9632
oil	0.0549	1.0564
oil_1	0.001	1.001
oil_2	0.0034***	1.0034***
oil_3	0.0008	1.0008
oil_4	0.001	1.001
oil_5	-0.0012	0.9988
oil_6	-0.0003	0.9997
oil_7	0.0003	1.0003
oil_8	0.0011	1.0011
oil_9	-0.0043***	0.9957***
oil_10	-0.0003	0.9997
oil_11	-0.0026**	0.9974**
oil_12	-0.0032***	0.9968***
inflation_1	-3.7656	0.0232
inflation_2	3.8413	46.5842
inflation_3	2.183	8.8729
inflation_4	4.7048	110.4777
inflation_5	-0.6684	0.5125
inflation_6	2.1305	8.4194
inflation_7	-4.3923	0.0124
inflation_8	0.1495	1.1612
inflation_9	-4.3672	0.0127
inflation_10	-2.2701	0.1033
inflation_11	1.858	6.4111
inflation_12	2.5691	13.0539
R	0.1004	1.1057
R_1	-0.002	0.9981
R_2	0.0033***	1.0033***
R_3	0.0005	1.0005
R_4	0.0011	1.0011
R_5	-0.0016	0.9984
R_6	0.0014	1.0014
R_7	0.0006	1.0006
R_8	0.0022*	1.0022*
R_9	-0.0009	0.9991
R_10	-0.0009	0.9991
R_11	0.0007	1.0007
R_12	-0.002*	0.998*
Food/Non_alcoholic_inflation_1	0.6407	1.8979
Food/Non_alcoholic_inflation_2	0.7226	2.0598
Food/Non_alcoholic_inflation_3	-1.1853	0.3056
Food/Non_alcoholic_inflation_4	0.213	1.2373

Food/Non_alcoholic_inflation_5	-1.2616	0.2832
Food/Non_alcoholic_inflation_6	-1.9243	0.146
Food/Non_alcoholic_inflation_7	-5.3422***	0.0048***
Food/Non_alcoholic_inflation_8	-2.3733*	0.0932*
Food/Non_alcoholic_inflation_9	-3.937***	0.0195***
Food/Non_alcoholic_inflation_10	-1.8065	0.1642
Food/Non_alcoholic_inflation_11	-2.4702*	0.0846*
Food/Non_alcoholic_inflation_12	1.1368	3.1168
Alcoholic_inflation_1	-2.1404*	0.1176*
Alcoholic_inflation_2	-3.2417***	0.0391***
Alcoholic_inflation_3	-1.8955*	0.1502*
Alcoholic_inflation_4	-2.0424*	0.1297*
Alcoholic_inflation_5	-1.2537	0.2854
Alcoholic_inflation_6	0.5956	1.8141
Alcoholic_inflation_7	-1.5944	0.203
Alcoholic_inflation_8	4.165***	64.3948***
Alcoholic_inflation_9	2.9229***	18.596***
Alcoholic_inflation_10	2.7371**	15.4418**
Alcoholic_inflation_11	0.6197	1.8584
Alcoholic_inflation_12	-0.4484	0.6386
Energy_inflation_1	0.01	1.0101
Energy_inflation_2	-0.7166	0.4884
Energy_inflation_3	-1.3875***	0.2497***
Energy_inflation_4	-0.9346*	0.3927*
Energy_inflation_5	0.0705	1.0731
Energy_inflation_6	0.5795	1.7852
Energy_inflation_7	-0.7163	0.4885
Energy_inflation_8	-0.7041	0.4946
Energy_inflation_9	-0.0015	0.9985
Energy_inflation_10	1.3253**	3.7634**
Energy_inflation_11	2.0245***	7.5721***
Energy_inflation_12	2.1437***	8.5311***
Non_energy_goods_inflation_1	-1.6799	0.1864
Non_energy_goods_inflation_2	-1.5214	0.2184
Non_energy_goods_inflation_3	1.2241	3.4012
Non_energy_goods_inflation_4	0.1598	1.1733
Non_energy_goods_inflation_5	0.8925	2.4412
Non_energy_goods_inflation_6	0.7217	2.0579
Non_energy_goods_inflation_7	-0.3153	0.7296
Non_energy_goods_inflation_8	0.2781	1.3206
Non_energy_goods_inflation_9	-1.0464	0.3512
Non_energy_goods_inflation_10	0.7504	2.1179
Non_energy_goods_inflation_11	2.015	7.501

Non_energy_goods_inflation_12	1.0738	2.9264
Housing_services_inflation_1	-4.1882	0.0152
Housing_services_inflation_2	-3.433	0.0323
Housing_services_inflation_3	-0.9285	0.3952
Housing_services_inflation_4	-3.0761	0.0461
Housing_services_inflation_5	1.7119	5.5394
Housing_services_inflation_6	-2.8186	0.0597
Housing_services_inflation_7	-8.417**	0.0002**
Housing_services_inflation_8	-12.2961***	0***
Housing_services_inflation_9	1.8525	6.3758
Housing_services_inflation_10	-3.9631	0.019
Housing_services_inflation_11	3.3875	29.5922
Housing_services_inflation_12	-1.4942	0.2244
Transport/travel_services_inflation_1	0.0254	1.0257
Transport/travel_services_inflation_2	1.6341	5.1251
Transport/travel_services_inflation_3	2.9249***	18.6321***
Transport/travel_services_inflation_4	2.4634***	11.7445***
Transport/travel_services_inflation_5	0.469	1.5984
Transport/travel_services_inflation_6	0.6603	1.9353
Transport/travel_services_inflation_7	1.1979	3.3131
Transport/travel_services_inflation_8	1.1978	3.3129
Transport/travel_services_inflation_9	3.8881***	48.8182***
Transport/travel_services_inflation_10	1.7771*	5.9127*
Transport/travel_services_inflation_11	0.7066	2.0271
Transport/travel_services_inflation_12	1.8335*	6.2558*
Communication_inflation_1	-1.4727	0.2293
Communication_inflation_2	-3.59***	0.0276***
Communication_inflation_3	-1.222	0.2947
Communication_inflation_4	-0.0045	0.9956
Communication_inflation_5	0.2915	1.3384
Communication_inflation_6	2.8567**	17.4045**
Communication_inflation_7	1.0832	2.9541
Communication_inflation_8	-2.4993**	0.0821**
Communication_inflation_9	-2.4825**	0.0835**
Communication_inflation_10	-2.346**	0.0958**
Communication_inflation_11	-1.5661	0.2089
Communication_inflation_12	-4.4953***	0.0112***
Recreational/personal_services_inflation_1	9.6278**	15180.6083**
Recreational/personal_services_inflation_2	14.0693***	1288900***
Recreational/personal_services_inflation_3	8.6746**	5852.3144**
Recreational/personal_services_inflation_4	7.9359*	2795.8871*
Recreational/personal_services_inflation_5	13.1827***	531120***
Recreational/personal_services_inflation_6	5.2326	187.2772

Recreational/personal_services_inflation_7	12.6997***	327660***
Recreational/personal_services_inflation_8	12.938***	415800***
Recreational/personal_services_inflation_9	19.8193***	404960000***
Recreational/personal_services_inflation_10	11.2197**	74583.2404**
Recreational/personal_services_inflation_11	5.0653	158.4243
Recreational/personal_services_inflation_12	-0.2925	0.7464
Miscellaneous_services_inflation_1	4.6022*	99.7065*
Miscellaneous_services_inflation_2	2.451	11.5999
Miscellaneous_services_inflation_3	-5.3026**	0.005**
Miscellaneous_services_inflation_4	1.9491	7.0221
Miscellaneous_services_inflation_5	1.2802	3.5972
Miscellaneous_services_inflation_6	1.4305	4.1808
Miscellaneous_services_inflation_7	0.1553	1.168
Miscellaneous_services_inflation_8	-2.6256	0.0724
Miscellaneous_services_inflation_9	-9.2487***	0.0001***
Miscellaneous_services_inflation_10	-11.9055***	0***
Miscellaneous_services_inflation_11	-10.0729***	0***
Miscellaneous_services_inflation_12	-6.0644**	0.0023**
Food/Non_alcoholic_expenditure	-0.2531	0.7764
Alcoholic_expenditure	0.2218	1.2483
Energy_expenditure	-0.0382	0.9625
Non_energy_goods_expenditure	-0.0372	0.9635
Housing_services_expenditure	0.6005***	1.823***
Transport/travel_services_expenditure	-0.0247	0.9756
Communication_expenditure	-0.1968	0.8213
Recreational/personal_services_expenditure	-0.0105	0.9895
Miscellaneous_services_expenditure	-0.2628	0.7689

Transport/Travel Services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0455	1.0466	-0.0242	0.976
	-			
SW	0.1473***	0.8631***	-0.022	0.9782
East_Anglia	-0.0304	0.9701	-0.046	0.955
	-			
East_Midlands	0.1803***	0.835***	-0.0136	0.9865
West_Midlands	-0.1066**	0.8989**	0.0328	1.0333
	-			
Yorks_Humber	0.1182***	0.8885***	-0.0215	0.9788
NW	-0.0008	0.9992	0.0201	1.0203
North	-0.0062	0.9938	-0.0327	0.9679

Wales	-0.211***	0.8098***	-0.0378	0.9629
			-	
Scotland	-0.0004	0.9996	0.1062***	0.8992***
NI	-0.0095	0.9905	-0.0347	0.9659
FEB	-0.0052	0.9948	0.0396	1.0403
MAR	0.1487	1.1603	0.0245	1.0248
APR	-0.0716	0.9309	-0.0502	0.951
MAY	-0.0543	0.9472	-0.011	0.989
JUN	0.1323	1.1414	-0.0017	0.9983
JUL	-0.0314	0.969	-0.0363	0.9643
AUG	-0.0066	0.9935	-0.0308	0.9697
SEP	-0.0508	0.9505	-0.0381	0.9626
OCT	0.0283	1.0287	0.0496	1.0509
NOV	0.0805	1.0838	0.0769	1.08
DEC	-0.1841	0.8318	-0.0006	0.9994
	-			
wage	0.7811***	0.4579***	0.0774	1.0805
independent	-0.0011	0.9989	0.3171***	1.3732***
	-		-	
Tax	4.3525***	0.0129***	0.7779***	0.4594***
NX	0.1155***	1.1224***	-0.0534	0.948
nine_ending	-0.0275	0.9729	0.0543	1.0558
	-			
zero_ending	0.0963***	0.9082***	-0.31***	0.7334***
sales	-0.0166	0.9836	0.0791	1.0824
market_share	0.0521***	1.0535***	0.0456***	1.0466***
			-	
increase_increase	-0.454***	0.6351***	0.3492***	0.7053***
increase_decrease	-0.135***	0.8737***	-0.0435**	0.9575**
decrease_decrease	-0.0175	0.9826	-0.0852*	0.9184*
oil	0.0349	1.0355	0.109	1.1151
oil_1	0.0037	1.0037	0.0021	1.0021
oil_2	-0.0024	0.9976	0.0041**	1.0041**
	-			
oil_3	0.0071***	0.9929***	0.0022	1.0022
oil_4	-0.0046*	0.9954*	0.002	1.002
oil_5	-0.0057**	0.9943**	0.0018	1.0018
oil_6	-0.0021	0.9979	0.0023	1.0023
	-			
oil_7	0.0074***	0.9926***	0.0019	1.0019
oil_8	-0.0037	0.9963	-0.0004	0.9996
oil_9	-0.007***	0.993***	-0.0011	0.9989
oil_10	-0.0012	0.9988	0.0029	1.0029
oil_11	-0.0013	0.9987	-0.0005	0.9995

oil_12	-0.0057**	0.9943**	-0.0021	0.9979
inflation_1	-6.3606	0.0017	-5.6038	0.0037
inflation_2	5.7696	320.4205	-3.2572	0.0385
inflation_3	11.1285	68082.26	-4.1567	0.0157
inflation_4	12.2582	210700	-4.1366	0.016
inflation_5	5.1926	179.9398	-0.1706	0.8431
inflation_6	18.5986**	119480000**	3.0762	21.6765
	35.2176**	197150000000000		
inflation_7	*	0***	-0.8126	0.4437
inflation_8	17.7115**	49207000**	-0.8449	0.4296
inflation_9	15.2468*	4184200*	-2.983	0.0506
inflation_10	12.759	347670	3.0825	21.8121
	29.4862**			
inflation_11	*	6392800000000***	3.1372	23.0397
inflation_12	15.5987**	5948700**	-2.0865	0.1241
R	0.762	2.1426	-0.181	0.8344
R_1	0.0066	1.0066	-0.0025	0.9975
R_2	0.0068	1.0068	0.0009	1.0009
R_3	0.0053	1.0053	0.0013	1.0013
R_4	0.01	1.01	-0.0012	0.9988
R_5	-0.0049	0.9951	0.0003	1.0003
R_6	0.0141**	1.0142**	0.0019	1.0019
R_7	0.0086	1.0086	0.0015	1.0015
R_8	0.012**	1.0121**	0.0019	1.0019
R_9	0.0002	1.0002	0.001	1.001
R_10	-0.0047	0.9953	0.0003	1.0003
R_11	0.0112*	1.0113*	0.0006	1.0006
R_12	-0.0008	0.9992	-0.0006	0.9994
Food/Non_alcoholic_inflation_1	4.6596	105.5982	2.8477	17.2477
Food/Non_alcoholic_inflation_2	8.3954***	4426.7584***	0.0113	1.0113
Food/Non_alcoholic_inflation_3	-0.9396	0.3908	3.2636	26.144
Food/Non_alcoholic_inflation_4	-6.6721**	0.0013**	4.5709*	96.6309*
Food/Non_alcoholic_inflation_5	3.954	52.1447	-0.0831	0.9203
Food/Non_alcoholic_inflation_6	2.6118	13.6231	-3.3921	0.0336
Food/Non_alcoholic_inflation_7	-2.0566	0.1279	-1.9121	0.1478
Food/Non_alcoholic_inflation_8	-3.8748	0.0208	1.8279	6.221
Food/Non_alcoholic_inflation_9	-4.4384	0.0118	0.7201	2.0547
Food/Non_alcoholic_inflation_10	-1.4826	0.227	0.1952	1.2155
Food/Non_alcoholic_inflation_11	-1.7794	0.1687	-2.2976	0.1005
Food/Non_alcoholic_inflation_12	-0.4533	0.6355	1.8876	6.6035
Alcoholic_inflation_1	8.666**	5802.3022**	-3.786***	0.0227***
Alcoholic_inflation_2	-6.2393*	0.002*	-3.1851**	0.0414**
Alcoholic_inflation_3	-0.0509	0.9504	-1.8828	0.1522

	16.3401**			
Alcoholic_inflation_4	*	12486000***	-3.7592**	0.0233**
	12.0383**			
Alcoholic_inflation_5	*	169110***	-2.3732	0.0932
Alcoholic_inflation_6	8.4051**	4469.9412**	-1.1352	0.3214
Alcoholic_inflation_7	0.1452	1.1563	-0.077	0.9259
	12.0871**			
Alcoholic_inflation_8	*	177570***	-1.5525	0.2117
Alcoholic_inflation_9	0.5517	1.7362	1.8147	6.139
Alcoholic_inflation_10	8.0011**	2984.2648**	-1.4308	0.2391
	10.7748**			
Alcoholic_inflation_11	*	47803.0546***	-0.1248	0.8827
Alcoholic_inflation_12	-2.883	0.056	-1.803	0.1648
Energy_inflation_1	-0.6165	0.5398	-0.1758	0.8388
Energy_inflation_2	-2.0442*	0.1295*	-0.2394	0.7871
Energy_inflation_3	-3.912***	0.02***	0.0393	1.04
Energy_inflation_4	0.4627	1.5884	-0.9727	0.3781
Energy_inflation_5	-0.886	0.4123	0.2267	1.2545
Energy_inflation_6	0.9471	2.5782	-0.4793	0.6192
Energy_inflation_7	1.1319	3.1015	-1.2683	0.2813
Energy_inflation_8	1.9753	7.2089	-0.7228	0.4854
Energy_inflation_9	0.0042	1.0042	0.0488	1.05
Energy_inflation_10	3.7049***	40.6477***	-0.2628	0.7689
Energy_inflation_11	8.2248***	3732.2518***	-0.1377	0.8714
Energy_inflation_12	6.9237***	1016.0955***	0.474	1.6065
Non_energy_goods_inflation_1	2.1159	8.2974	1.1486	3.1538
Non_energy_goods_inflation_2	1.1271	3.0866	-0.7047	0.4942
Non_energy_goods_inflation_3	2.0008	7.3949	-0.8071	0.4462
Non_energy_goods_inflation_4	2.0043	7.4208	1.023	2.7816
Non_energy_goods_inflation_5	-1.671	0.1881	0.7779	2.1768
Non_energy_goods_inflation_6	0.9926	2.6982	0.1312	1.1401
Non_energy_goods_inflation_7	1.3124	3.7153	-0.7368	0.4787
Non_energy_goods_inflation_8	0.6664	1.9472	-0.9079	0.4034
Non_energy_goods_inflation_9	1.2134	3.3648	-2.4556	0.0858
Non_energy_goods_inflation_10	1.3511	3.8617	-2.0163	0.1332
Non_energy_goods_inflation_11	4.4932*	89.4095*	-0.5626	0.5697
Non_energy_goods_inflation_12	2.0544	7.8021	-0.2942	0.7452
	-			
	27.3449**			
Housing_services_inflation_1	*	0***	4.7544	116.0966
	-			
	35.5653**			
Housing_services_inflation_2	*	0***	-5.7442	0.0032
Housing_services_inflation_3	-6.3265	0.0018	-4.5586	0.0105

Housing_services_inflation_4	-6.3668	0.0017	-0.4781	0.6199
Housing_services_inflation_5	-15.591**	0**	-1.0236	0.3593
	-			
	24.7925**		-	
Housing_services_inflation_6	*	0***	12.8933*	0*
	-		-	
Housing_services_inflation_7	12.6832*	0*	12.0248*	0*
	-		-	
Housing_services_inflation_8	16.8383**	0**	17.5127**	0**
Housing_services_inflation_9	1.2428	3.4654	10.9801	58695.62
	-			
Housing_services_inflation_10	13.0034*	0*	12.4022*	243350*
	-			
Housing_services_inflation_11	13.0416*	0*	13.4736*	710400*
Housing_services_inflation_12	-6.3286	0.0018	9.1765	9667.705
Transport/travel_services_inflation_1	-2.4641	0.0851	-0.3418	0.7105
Transport/travel_services_inflation_2	-0.707	0.4931	0.6822	1.9782
Transport/travel_services_inflation_3	2.6457	14.0939	1.9043	6.7146
Transport/travel_services_inflation_4	0.2143	1.2391	2.4804*	11.9457*
Transport/travel_services_inflation_5	-2.2839	0.1019	0.6529	1.9211
Transport/travel_services_inflation_6	-0.0433	0.9576	2.987**	19.827**
Transport/travel_services_inflation_7	3.3353	28.0856	1.8774	6.5367
Transport/travel_services_inflation_8	-2.3335	0.097	2.0409	7.6974
Transport/travel_services_inflation_9	3.9826	53.6552	2.2655	9.6359
Transport/travel_services_inflation_10	0.4804	1.6167	1.2	3.32
Transport/travel_services_inflation_11	-1.2899	0.2753	2.9553*	19.2077*
Transport/travel_services_inflation_12	6.6207***	750.4512***	-0.5623	0.5699
	-			
Communication_inflation_1	13.204***	0***	-1.3345	0.2633
Communication_inflation_2	-2.8358	0.0587	-2.1533	0.1161
Communication_inflation_3	-2.0761	0.1254	-2.3741	0.0931
Communication_inflation_4	4.3357	76.376	0.9303	2.5354
Communication_inflation_5	-2.7675	0.0628	4.2289**	68.6395**
Communication_inflation_6	-6.1685**	0.0021**	4.0911**	59.8053**
Communication_inflation_7	4.7653*	117.37*	2.8097	16.6044
	-			
	10.7486**			
Communication_inflation_8	*	0***	-3.2938	0.0371
Communication_inflation_9	-2.9559	0.052	-2.528	0.0798
Communication_inflation_10	4.4427	85.0073	-2.8525	0.0577
Communication_inflation_11	2.9246	18.6266	-1.0598	0.3465
Communication_inflation_12	2.0204	7.5414	-4.3942**	0.0123**
Recreational/personal_services_inflati on_1	0.7867	2.1962	12.3355*	227640*
Recreational/personal_services_inflati	-5.0217	0.0066	14.8921**	2934800*

on_2				*
Recreational/personal_services_inflati on_3	8.2345	3768.717	16.8258**	2029200 0**
Recreational/personal_services_inflati on_4	-2.2668	0.1036	12.6246*	303930*
Recreational/personal_services_inflati on_5	18.9337*	167040000*	9.2095	9991.472
Recreational/personal_services_inflati on_6	6.6457	769.4366	1.8074	6.0945
Recreational/personal_services_inflati on_7	17.7609*	51697000*	-3.0401	0.0478
Recreational/personal_services_inflati on_8	30.3463** *	15109000000000** *	-0.7734	0.4615
Recreational/personal_services_inflati on_9	22.2327**	4524300000**	6.6602	780.7161
Recreational/personal_services_inflati on_10	6.1541	470.6486	15.296**	4394900* *
Recreational/personal_services_inflati on_11	-11.854	0	7.4986	1805.484
	-			
Recreational/personal_services_inflati on_12	30.7406** *	0***	4.8665	129.8627
	-			
Miscellaneous_services_inflation_1	11.9293*	0*	-2.9402	0.0529
Miscellaneous_services_inflation_2	-10.308*	0*	-0.0015	0.9985
	-			
	16.1058** *	0***	4.3888	80.5414
	-			
Miscellaneous_services_inflation_4	13.0252**	0**	-1.377	0.2523
Miscellaneous_services_inflation_5	7.5889	1976.185	-6.7555	0.0012
Miscellaneous_services_inflation_6	0.8657	2.3767	1.8534	6.3812
Miscellaneous_services_inflation_7	-6.2437	0.0019	-5.4982	0.0041
Miscellaneous_services_inflation_8	-4.3059	0.0135	-3.5211	0.0296
			-	
			13.2848** *	0***
Miscellaneous_services_inflation_9	-0.9139	0.401		
Miscellaneous_services_inflation_10	-3.0934	0.0453	0.2598	1.2966
	-			
	14.9623** *	0***	-9.671**	0.0001**
Miscellaneous_services_inflation_12	5.3156	203.4775	2.6491	14.1412
Food/Non_alcoholic_expenditure	-0.5214	0.5937	-0.0166	0.9835
Alcoholic_expenditure	0.2232	1.2501	0.0032	1.0032
Energy_expenditure	-0.2136	0.8077	0.0773	1.0804
Non_energy_goods_expenditure	2.3171	10.1466	-0.0234	0.9769
Housing_services_expenditure	4.1801***	65.3737***	-0.0695	0.9328

Transport/travel_services_expenditure	0.6564	1.9279	0.0318	1.0324
Communication_expenditure	-1.4131	0.2434	-0.0353	0.9653
Recreational/personal_services_expenditure	0.5011	1.6505	0.0358	1.0365
Miscellaneous_services_expenditure	1.3161	3.7289	-0.1697	0.844

Transport/Travel Services			
	without sales	full sample	
		coef	H.R.
SE		0.005	1.005
SW		-0.0513**	0.95**
East_Anglia		-0.0892***	0.9147***
East_Midlands		-0.0938***	0.9105***
West_Midlands		-0.0408*	0.9601*
Yorks_Humber		-0.1111***	0.8949***
NW		-0.0123	0.9878
North		-0.0731**	0.9295**
Wales		-0.0932***	0.911***
Scotland		-0.1084***	0.8973***
NI		-0.0684*	0.9339*
FEB		-0.0388	0.9619
MAR		0.1389**	1.149**
APR		-0.0025	0.9975
MAY		-0.0108	0.9892
JUN		0.0811	1.0844
JUL		0.1176**	1.1248**
AUG		0.0096	1.0097
SEP		-0.0426	0.9583
OCT		0.0241	1.0244
NOV		0.104*	1.1096*
DEC		-0.105*	0.9003*
wage		-1.3492*	0.2594*
independent		0.2603***	1.2973***
tax		-0.545***	0.5799***
NX		-0.0415***	0.9594***
nine_ending		0.0768***	1.0798***
zero_ending		-0.2512***	0.7779***
market_share		0.0499***	1.0511***
increase_increase		-0.3755***	0.6869***
increase_decrease		-0.0721***	0.9304***
decrease_decrease		-0.0279	0.9725

oil	0.0629	1.0649
oil_1	0.0012	1.0012
oil_2	0.003***	1.003***
oil_3	0.0015	1.0015
oil_4	0.0014	1.0014
oil_5	-0.0005	0.9995
oil_6	0.0002	1.0002
oil_7	0.0006	1.0006
oil_8	0.0007	1.0007
oil_9	-0.004***	0.996***
oil_10	-0.0004	0.9996
oil_11	-0.0019*	0.9981*
oil_12	-0.002*	0.998*
inflation_1	-5.1295	0.0059
inflation_2	1.0174	2.7659
inflation_3	-0.1573	0.8545
inflation_4	1.9791	7.236
inflation_5	0.3026	1.3534
inflation_6	2.867	17.584
inflation_7	-4.1447	0.0158
inflation_8	0.6298	1.8772
inflation_9	-4.2655	0.014
inflation_10	-4.5962	0.0101
inflation_11	-0.3763	0.6864
inflation_12	0.7846	2.1915
R	0.0718	1.0745
R_1	-0.0012	0.9988
R_2	0.0025*	1.0025*
R_3	-0.0005	0.9995
R_4	-0.0005	0.9995
R_5	-0.0026*	0.9974*
R_6	0.001	1.001
R_7	0.0007	1.0007
R_8	0.0019	1.0019
R_9	-0.0007	0.9993
R_10	-0.0008	0.9992
R_11	0.0005	1.0005
R_12	-0.0019	0.9981
Food/Non_alcoholic_inflation_1	0.6797	1.9732
Food/Non_alcoholic_inflation_2	0.6099	1.8402
Food/Non_alcoholic_inflation_3	-3.0574**	0.047**
Food/Non_alcoholic_inflation_4	-1.3829	0.2508
Food/Non_alcoholic_inflation_5	-3.1951**	0.041**

Food/Non_alcoholic_inflation_6	-3.407**	0.0331**
Food/Non_alcoholic_inflation_7	-6.9641***	0.0009***
Food/Non_alcoholic_inflation_8	-4.3817***	0.0125***
Food/Non_alcoholic_inflation_9	-4.9487***	0.0071***
Food/Non_alcoholic_inflation_10	-3.113**	0.0445**
Food/Non_alcoholic_inflation_11	-2.7257**	0.0655**
Food/Non_alcoholic_inflation_12	1.129	3.0926
Alcoholic_inflation_1	-2.3001**	0.1003**
Alcoholic_inflation_2	-3.8229***	0.0219***
Alcoholic_inflation_3	-1.3735	0.2532
Alcoholic_inflation_4	-1.7011	0.1825
Alcoholic_inflation_5	-1.0139	0.3628
Alcoholic_inflation_6	0.8272	2.2868
Alcoholic_inflation_7	-1.9102*	0.148*
Alcoholic_inflation_8	4.0288***	56.1931***
Alcoholic_inflation_9	1.7892*	5.9849*
Alcoholic_inflation_10	1.998*	7.3744*
Alcoholic_inflation_11	-0.283	0.7535
Alcoholic_inflation_12	-1.2665	0.2818
Energy_inflation_1	0.3877	1.4736
Energy_inflation_2	-0.14	0.8693
Energy_inflation_3	-1.2239**	0.2941**
Energy_inflation_4	-0.6774	0.508
Energy_inflation_5	0.2734	1.3144
Energy_inflation_6	0.5923	1.8081
Energy_inflation_7	-0.0441	0.9568
Energy_inflation_8	-0.3015	0.7397
Energy_inflation_9	0.0394	1.0402
Energy_inflation_10	1.3909**	4.0185**
Energy_inflation_11	1.7103***	5.5307***
Energy_inflation_12	1.8911***	6.6265***
Non_energy_goods_inflation_1	-0.3397	0.712
Non_energy_goods_inflation_2	-0.8374	0.4328
Non_energy_goods_inflation_3	1.9701	7.1711
Non_energy_goods_inflation_4	0.0854	1.0891
Non_energy_goods_inflation_5	0.7452	2.1069
Non_energy_goods_inflation_6	0.5122	1.6689
Non_energy_goods_inflation_7	-0.2181	0.8041
Non_energy_goods_inflation_8	1.0658	2.9032
Non_energy_goods_inflation_9	-0.2266	0.7972
Non_energy_goods_inflation_10	1.2998	3.6685
Non_energy_goods_inflation_11	2.0392	7.6843
Non_energy_goods_inflation_12	2.1941**	8.9722**

Housing_services_inflation_1	-1.3711	0.2538
Housing_services_inflation_2	-0.8128	0.4436
Housing_services_inflation_3	2.1225	8.352
Housing_services_inflation_4	-1.3828	0.2509
Housing_services_inflation_5	5.333*	207.0552*
Housing_services_inflation_6	0.3154	1.3708
Housing_services_inflation_7	-3.6806	0.0252
Housing_services_inflation_8	-7.7313**	0.0004**
Housing_services_inflation_9	4.3326	76.1456
Housing_services_inflation_10	-1.9096	0.1481
Housing_services_inflation_11	3.3044	27.2325
Housing_services_inflation_12	-2.0171	0.133
Transport/travel_services_inflation_1	-0.9389	0.3911
Transport/travel_services_inflation_2	1.0736	2.9258
Transport/travel_services_inflation_3	2.6436**	14.064**
Transport/travel_services_inflation_4	1.4598	4.3051
Transport/travel_services_inflation_5	-0.4389	0.6448
Transport/travel_services_inflation_6	-0.3167	0.7285
Transport/travel_services_inflation_7	0.4038	1.4975
Transport/travel_services_inflation_8	0.7273	2.0695
Transport/travel_services_inflation_9	3.0868***	21.9076***
Transport/travel_services_inflation_10	1.0856	2.9611
Transport/travel_services_inflation_11	-0.0168	0.9833
Transport/travel_services_inflation_12	1.589	4.899
Communication_inflation_1	-0.6375	0.5286
Communication_inflation_2	-4.6276***	0.0098***
Communication_inflation_3	-0.7689	0.4635
Communication_inflation_4	1.5111	4.5317
Communication_inflation_5	1.6874	5.4056
Communication_inflation_6	3.0881***	21.9364***
Communication_inflation_7	1.0107	2.7474
Communication_inflation_8	-2.5447**	0.0785**
Communication_inflation_9	-1.6242	0.1971
Communication_inflation_10	-1.9167*	0.1471*
Communication_inflation_11	-0.5345	0.586
Communication_inflation_12	-3.4642***	0.0313***
Recreational/personal_services_inflation_1	8.177*	3558.2994*
Recreational/personal_services_inflation_2	15.2866***	4354100***
Recreational/personal_services_inflation_3	8.0603*	3166.2522*
Recreational/personal_services_inflation_4	7.3336	1530.84
Recreational/personal_services_inflation_5	10.3224**	30405.2186**
Recreational/personal_services_inflation_6	-0.0865	0.9171
Recreational/personal_services_inflation_7	8.6287*	5590.0297*

Recreational/personal_services_inflation_8	10.0264**	22614.935**
Recreational/personal_services_inflation_9	13.134***	505870***
Recreational/personal_services_inflation_10	5.4047	222.4528
Recreational/personal_services_inflation_11	-0.7812	0.4579
Recreational/personal_services_inflation_12	-2.6887	0.068
Miscellaneous_services_inflation_1	1.611	5.0078
Miscellaneous_services_inflation_2	-1.8431	0.1583
Miscellaneous_services_inflation_3	-8.6088***	0.0002***
Miscellaneous_services_inflation_4	-1.7372	0.176
Miscellaneous_services_inflation_5	-1.5754	0.2069
Miscellaneous_services_inflation_6	-0.7856	0.4558
Miscellaneous_services_inflation_7	-0.3088	0.7343
Miscellaneous_services_inflation_8	-1.5378	0.2148
Miscellaneous_services_inflation_9	-8.1281***	0.0003***
Miscellaneous_services_inflation_10	-12.6658***	0***
Miscellaneous_services_inflation_11	-9.7193***	0.0001***
Miscellaneous_services_inflation_12	-7.9874***	0.0003***
Food/Non_alcoholic_expenditure	2.2***	9.0251***
Alcoholic_expenditure	-0.1002	0.9046
Energy_expenditure	0.3408**	1.4061**
Non_energy_goods_expenditure	0.8909	2.4373
Housing_services_expenditure	0.5854**	1.7956**
Transport/travel_services_expenditure	0.63	1.8776
Communication_expenditure	-1.2361***	0.2905***
Recreational/personal_services_expenditure	0.6781	1.9701
Miscellaneous_services_expenditure	-1.1491***	0.3169***

Transport/Travel Services Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0612*	1.0632*	-0.0211	0.9791
SW	-0.1373***	0.8717***	-0.016	0.9841
East_Anglia	-0.0307	0.9698	-0.0405	0.9603
East_Midlands	-0.165***	0.8479***	-0.0111	0.9889
West_Midlands	-0.0813*	0.922*	0.0375	1.0382
Yorks_Humber	-0.1003**	0.9046**	-0.0079	0.9922
NW	0.013	1.0131	0.0306	1.0311
North	-0.0112	0.9889	-0.0257	0.9747
Wales	-0.1909***	0.8262***	-0.0388	0.962
			-	
Scotland	0.0156	1.0158	0.1027***	0.9024***

NI	-0.0111	0.989	-0.0342	0.9664
FEB	-0.1355	0.8733	0.0615	1.0634
MAR	0.096	1.1008	0.0163	1.0164
APR	-0.0331	0.9674	-0.0413	0.9595
MAY	-0.0167	0.9835	-0.0037	0.9963
JUN	0.1667*	1.1814*	-0.0253	0.975
JUL	0.0548	1.0564	-0.0688	0.9336
AUG	0.0323	1.0329	-0.0481	0.953
SEP	-0.0141	0.986	-0.026	0.9743
OCT	0.0145	1.0146	0.0474	1.0485
NOV	0.1232	1.1311	0.1697**	1.185**
DEC	-0.2482*	0.7802*	0.0122	1.0123
wage	-5.6791**	0.0034**	0.001	1.001
independent	-0.0062	0.9938	0.3175***	1.3736***
tax	-1.3689*	0.2544*	-0.4169**	0.6591**
NX	0.0264	1.0267	-0.1482**	0.8622**
nine_ending	-0.027	0.9734	0.0685*	1.0709*
zero_ending	-0.0872***	0.9165***	0.3166***	0.7286***
market_share	0.0503***	1.0516***	0.0463***	1.0474***
increase_increase	-0.4479***	0.639***	0.3461***	0.7075***
increase_decrease	-0.1266***	0.8811***	-0.0387**	0.9621**
decrease_decrease	-0.0301	0.9704	-0.0822*	0.921*
oil	0.1012	1.1065	0.1244	1.1325
oil_1	0.0022	1.0022	0.0022	1.0022
oil_2	-0.0012	0.9988	0.0051***	1.0051***
oil_3	-0.006**	0.994**	0.0028	1.0028
oil_4	-0.0027	0.9973	0.003*	1.003*
oil_5	-0.0037	0.9963	0.0019	1.0019
oil_6	-0.0015	0.9985	0.0021	1.0021
oil_7	-0.0048**	0.9952**	0.0023	1.0023
oil_8	-0.0033	0.9967	-0.0012	0.9988
oil_9	-0.0052**	0.9948**	-0.0019	0.9981
oil_10	-0.0014	0.9986	0.0023	1.0023
oil_11	-0.0024	0.9976	-0.0009	0.9991
oil_12	-0.0037	0.9963	-0.003*	0.997*
inflation_1	-6.8928	0.001	-5.939	0.0026
inflation_2	2.659	14.2814	-4.8062	0.0082
inflation_3	6.5622	707.8126	-4.8447	0.0079
inflation_4	4.9161	136.4714	-6.034	0.0024
inflation_5	-1.548	0.2127	1.4474	4.2521
inflation_6	12.2229	203390	3.2436	25.625

	24.2184**	32954000000*		
inflation_7	*	**	-1.7676	0.1707
inflation_8	10.3894	32513.18	-0.5326	0.5871
inflation_9	6.4889	657.767	-3.2505	0.0388
inflation_10	4.3469	77.2422	0.8817	2.415
inflation_11	16.0527*	9366600*	1.4937	4.4534
inflation_12	9.1714	9617.981	-2.6508	0.0706
R	0.2417	1.2734	-0.1316	0.8767
R_1	0.005	1.005	-0.0024	0.9976
R_2	0.004	1.004	0.0002	1.0002
R_3	0.0013	1.0013	0	1
R_4	0.0036	1.0036	-0.0035**	0.9965**
R_5	-0.0067	0.9934	-0.0007	0.9993
R_6	0.0167***	1.0168***	0.0004	1.0004
R_7	0.0121**	1.0122**	0.0015	1.0015
R_8	0.0198***	1.02***	0.0012	1.0012
R_9	0.0089	1.0089	0.0002	1.0002
R_10	0.0055	1.0055	0.0004	1.0004
R_11	0.0177***	1.0179***	0.0011	1.0011
R_12	0.004	1.004	-0.0002	0.9998
Food/Non_alcoholic_inflation_1	4.7085	110.8879	2.4851	12.0019
Food/Non_alcoholic_inflation_2	10.053***	23224.7624***	-1.4415	0.2366
Food/Non_alcoholic_inflation_3	-1.7877	0.1673	2.0977	8.1477
Food/Non_alcoholic_inflation_4	-7.3758**	0.0006**	2.6362	13.9599
Food/Non_alcoholic_inflation_5	4.3986	81.3367	-4.2448*	0.0143*
Food/Non_alcoholic_inflation_6	3.3931	29.7589	-5.0525**	0.0064**
Food/Non_alcoholic_inflation_7	-1.2027	0.3004	-2.38	0.0926
Food/Non_alcoholic_inflation_8	-5.072*	0.0063*	-0.2669	0.7658
Food/Non_alcoholic_inflation_9	-8.5441***	0.0002***	-1.2957	0.2737
Food/Non_alcoholic_inflation_10	-4.5511	0.0106	-0.9362	0.3921
Food/Non_alcoholic_inflation_11	-2.7799	0.062	-2.3635	0.0941
Food/Non_alcoholic_inflation_12	1.2727	3.5706	1.7884	5.9796
	10.6229**		-	
Alcoholic_inflation_1	*	41062.8119***	5.2679***	0.0052***
Alcoholic_inflation_2	-4.3264	0.0132	-2.6354*	0.0717*
Alcoholic_inflation_3	0.7725	2.1651	-1.0319	0.3563
	13.8907**			
Alcoholic_inflation_4	*	1078100***	-3.1725**	0.0419**
	11.8713**			
Alcoholic_inflation_5	*	143110***	-1.2568	0.2846
	11.4314**			
Alcoholic_inflation_6	*	92172.5459***	-0.9873	0.3726
Alcoholic_inflation_7	3.286	26.7353	0.1071	1.1131
Alcoholic_inflation_8	15.1184**	3679800***	-1.0195	0.3608

		*		
Alcoholic_inflation_9	0.4717	1.6027	1.753	5.7716
Alcoholic_inflation_10	5.856	349.3257	-1.4808	0.2275
Alcoholic_inflation_11	9.493**	13266.5657**	-0.1926	0.8248
Alcoholic_inflation_12	-5.8219	0.003	-1.8455	0.1579
Energy_inflation_1	0.8977	2.4538	-0.1277	0.8801
Energy_inflation_2	-1.1568	0.3145	-0.6873	0.5029
Energy_inflation_3	-2.4143**	0.0894**	-0.4572	0.6331
Energy_inflation_4	-0.4042	0.6675	-0.5609	0.5707
Energy_inflation_5	-0.5709	0.565	0.5259	1.6919
Energy_inflation_6	0.9277	2.5287	-0.4923	0.6112
Energy_inflation_7	1.3965	4.0409	-0.5118	0.5994
Energy_inflation_8	1.1058	3.0215	-0.4341	0.6478
Energy_inflation_9	-2.503**	0.0818**	0.4734	1.6054
Energy_inflation_10	2.5366*	12.6371*	0.1806	1.1979
Energy_inflation_11	6.3427***	568.3446***	-0.9706	0.3789
Energy_inflation_12	5.2611***	192.6872***	0.2294	1.2579
Non_energy_goods_inflation_1	0.2226	1.2493	2.5037	12.2279
Non_energy_goods_inflation_2	0.1378	1.1478	0.9079	2.4792
Non_energy_goods_inflation_3	1.7329	5.6568	0.9207	2.5109
Non_energy_goods_inflation_4	2.2386	9.3798	1.4972	4.4691
Non_energy_goods_inflation_5	-2.795	0.0611	2.4707	11.8308
Non_energy_goods_inflation_6	1.061	2.8892	0.5652	1.7598
Non_energy_goods_inflation_7	0.7224	2.0594	-1.3416	0.2614
Non_energy_goods_inflation_8	0.784	2.1902	0.3628	1.4374
Non_energy_goods_inflation_9	0.7279	2.0708	-0.3147	0.73
Non_energy_goods_inflation_10	1.5975	4.9407	-1.9075	0.1485
Non_energy_goods_inflation_11	3.9325	51.0344	-0.6999	0.4966
Non_energy_goods_inflation_12	1.722	5.596	0.0399	1.0407
	-			
	26.7299**			
Housing_services_inflation_1	*	0***	9.345	11441.44
	-			
	29.3675**			
Housing_services_inflation_2	*	0***	-8.6281	0.0002
Housing_services_inflation_3	-3.4642	0.0313	-4.0204	0.0179
Housing_services_inflation_4	-3.8268	0.0218	4.2595	70.7761
Housing_services_inflation_5	-3.95	0.0193	6.8055	902.7879
Housing_services_inflation_6	-11.8801*	0*	-3.977	0.0187
Housing_services_inflation_7	-6.2905	0.0019	-5.6306	0.0036
Housing_services_inflation_8	-13.1216*	0*	-5.8002	0.003
			19.7181*	365990000*
Housing_services_inflation_9	1.0091	2.7432	**	**
Housing_services_inflation_10	-8.013	0.0003	17.007**	24325000**

Housing_services_inflation_11	-4.043	0.0175	12.3996*	242710*
Housing_services_inflation_12	-3.8295	0.0217	7.9291	2776.936
Transport/travel_services_inflation_1	-2.4905	0.0829	-1.7964	0.1659
Transport/travel_services_inflation_2	-0.615	0.5407	0.3548	1.4259
Transport/travel_services_inflation_3	6.0522**	425.0393**	1.8808	6.5586
Transport/travel_services_inflation_4	2.2774	9.7513	2.1358	8.4636
Transport/travel_services_inflation_5	0.9949	2.7044	-0.3691	0.6913
Transport/travel_services_inflation_6	-2.5039	0.0818	1.3618	3.9034
Transport/travel_services_inflation_7	3.0432	20.9727	1.5045	4.5019
Transport/travel_services_inflation_8	-1.6277	0.1964	1.5062	4.5097
Transport/travel_services_inflation_9	5.7159**	303.6657**	1.1927	3.2961
Transport/travel_services_inflation_10	2.2961	9.9358	0.143	1.1537
Transport/travel_services_inflation_11	-0.3483	0.7059	2.0341	7.6451
Transport/travel_services_inflation_12	6.4313**	620.9687**	-0.8549	0.4253
Communication_inflation_1	-9.7959***	0.0001***	-2.0982	0.1227
Communication_inflation_2	-2.4697	0.0846	-3.1512	0.0428
Communication_inflation_3	-3.405	0.0332	-0.4074	0.6654
Communication_inflation_4	3.9925	54.189	2.1018	8.1809
Communication_inflation_5	-4.6596	0.0095	3.625*	37.5251*
Communication_inflation_6	-8.1165***	0.0003***	3.6801*	39.6494*
Communication_inflation_7	2.8227	16.8217	3.4078*	30.1987*
	-			
	11.7282**			
Communication_inflation_8	*	0***	-4.2145**	0.0148**
Communication_inflation_9	-4.704*	0.0091*	-3.312*	0.0364*
Communication_inflation_10	-0.1173	0.8894	-2.7094	0.0666
Communication_inflation_11	-2.504	0.0818	0.2909	1.3376
Communication_inflation_12	-5.8145**	0.003**	-1.8115	0.1634
Recreational/personal_services_inflatio			15.3582*	
n_1	-8.9237	0.0001	*	4676900**
Recreational/personal_services_inflatio			13.5989*	
n_2	-12.7988	0	*	805240**
Recreational/personal_services_inflatio			13.3277*	
n_3	-15.9817	0		613940*
	-			
Recreational/personal_services_inflatio	31.1206**			
n_4	*	0***	10.8136	49691.02
Recreational/personal_services_inflatio			4.9872	146.5262
n_5	-5.9073	0.0027		
Recreational/personal_services_inflatio			-2.1359	0.1181
n_6	-15.5619	0		
Recreational/personal_services_inflatio			-2.9261	0.0536
n_7	-6.56	0.0014		
Recreational/personal_services_inflatio			-3.106	0.0448
n_8	11.3562	85491.59		

Recreational/personal_services_inflatio n_9	3.7027	40.5549	4.9457	140.5717
Recreational/personal_services_inflatio n_10	-12.2454	0	9.8512	18981.34
Recreational/personal_services_inflatio n_11	-14.5421	0	-4.8556	0.0078
	-			
Recreational/personal_services_inflatio n_12	33.4316**	*	0***	-3.5756
Miscellaneous_services_inflation_1	-9.6602	0.0001	-5.5841	0.0038
Miscellaneous_services_inflation_2	-11.67**	0**	-6.7522	0.0012
Miscellaneous_services_inflation_3	-10.4937*	0*	-2.3343	0.0969
Miscellaneous_services_inflation_4	-9.67	0.0001	-2.5612	0.0772
Miscellaneous_services_inflation_5	5.2394	188.5491	-4.3148	0.0134
Miscellaneous_services_inflation_6	6.9274	1019.845	4.5286	92.6333
Miscellaneous_services_inflation_7	-8.1351	0.0003	-1.4831	0.2269
Miscellaneous_services_inflation_8	-5.0737	0.0063	0.1772	1.1939
Miscellaneous_services_inflation_9	-4.8798	0.0076	-10.607**	0**
Miscellaneous_services_inflation_10	-9.8386*	0.0001*	2.5663	13.018
	-			
	18.2708**	*	0***	-9.7734**
Miscellaneous_services_inflation_11	-5.8279	0.0029	0.8473	2.3333
Miscellaneous_services_inflation_12	-7.1838***	0.0008***	1.5515**	4.7187**
Food/Non_alcoholic_expenditure	-4.5915***	0.0101***	-0.2849	0.7521
Alcoholic_expenditure	2.7091***	15.0161***	0.6436**	1.9033**
Energy_expenditure	-0.1709	0.8429	-0.2403	0.7864
Non_energy_goods_expenditure	-6.3351***	0.0018***	0.9036**	2.4685**
Housing_services_expenditure	10.7177**	*	45147.1516***	1.0323
Transport/travel_services_expenditure	-4.7696***	0.0085***	1.5251***	0.2176***
Communication_expenditure	1.5318	4.6265	1.1944	3.3015
Recreational/personal_services_expend iture	-2.4904***	0.0829***	-0.6905	0.5013
Miscellaneous_services_expenditure				

Communication Services		
with sales	full sample	
	coef	H.R.
SE	0.0006	1.0006
SW	-0.009	0.991
East_Anglia	-0.0592	0.9425
East_Midlands	-0.0272	0.9732

West_Midlands	0.0186	1.0187
Yorks_Humber	0.0051	1.0052
NW	0.009	1.0091
North	0.0191	1.0193
Wales	0.0351	1.0357
Scotland	-0.0105	0.9895
NI	-0.0208	0.9794
FEB	-0.2357**	0.79**
MAR	0.2863***	1.3316***
APR	-0.0706	0.9318
MAY	-0.1624	0.8501
JUN	0.0354	1.036
JUL	0.0065	1.0066
AUG	-0.0165	0.9836
SEP	0.0358	1.0365
OCT	0.2019*	1.2237*
NOV	0.0878	1.0918
DEC	0.1105	1.1168
wage	0.5689**	1.7663**
independent	0.3389***	1.4034***
tax	-0.2236	0.7996
NX	0.0513***	1.0526***
nine_ending	0.0139	1.014
zero_ending	-0.0784**	0.9246**
sales	0.1448***	1.1558***
market_share	0.1134***	1.1201***
increase_increase	-0.151***	0.8598***
increase_decrease	-0.0411	0.9598
decrease_decrease	0.1286***	1.1372***
oil	0.0227	1.023
oil_1	0.0034	1.0034
oil_2	-0.0016	0.9984
oil_3	-0.0013	0.9987
oil_4	-0.0008	0.9992
oil_5	-0.0013	0.9987
oil_6	-0.0005	0.9995
oil_7	-0.0052**	0.9949**
oil_8	0.0033	1.0033
oil_9	-0.0054**	0.9946**
oil_10	0.0056***	1.0056***
oil_11	-0.0013	0.9987
oil_12	-0.0074***	0.9926***
inflation_1	13.8906*	1078000*

inflation_2	10.8716	52659.73
inflation_3	5.6553	285.793
inflation_4	4.9962	147.8453
inflation_5	-3.3401	0.0354
inflation_6	1.9315	6.8996
inflation_7	-3.1515	0.0428
inflation_8	-13.4884*	0*
inflation_9	-13.4332*	0*
inflation_10	-6.2697	0.0019
inflation_11	8.2326	3761.711
inflation_12	-6.4665	0.0016
R	-0.6093***	0.5437***
R_1	-0.0015	0.9985
R_2	-0.0064***	0.9936***
R_3	-0.0019	0.9981
R_4	-0.0057**	0.9944**
R_5	-0.0024	0.9976
R_6	0.0024	1.0024
R_7	0.0039*	1.0039*
R_8	-0.0068***	0.9933***
R_9	0.0143***	1.0144***
R_10	-0.0032	0.9968
R_11	0.0037*	1.0037*
R_12	-0.0057***	0.9943***
Food/Non_alcoholic_inflation_1	-0.7877	0.4549
Food/Non_alcoholic_inflation_2	4.6557	105.1872
Food/Non_alcoholic_inflation_3	7.4031**	1641.0698**
Food/Non_alcoholic_inflation_4	15.0685***	3500700***
Food/Non_alcoholic_inflation_5	8.5225***	5026.645***
Food/Non_alcoholic_inflation_6	-4.3116	0.0134
Food/Non_alcoholic_inflation_7	6.5154**	675.4801**
Food/Non_alcoholic_inflation_8	-8.5408***	0.0002***
Food/Non_alcoholic_inflation_9	19.0239***	182800000***
Food/Non_alcoholic_inflation_10	-5.0042*	0.0067*
Food/Non_alcoholic_inflation_11	-7.2556**	0.0007**
Food/Non_alcoholic_inflation_12	5.2292*	186.647*
Alcoholic_inflation_1	1.112	3.0405
Alcoholic_inflation_2	1.6778	5.3539
Alcoholic_inflation_3	4.4124**	82.4652**
Alcoholic_inflation_4	6.3123***	551.3369***
Alcoholic_inflation_5	6.114***	452.1522***
Alcoholic_inflation_6	3.3554	28.6571
Alcoholic_inflation_7	-0.8353	0.4337

Alcoholic_inflation_8	5.9907***	399.6844***
Alcoholic_inflation_9	-1.2127	0.2974
Alcoholic_inflation_10	5.3012**	200.5773**
Alcoholic_inflation_11	-5.6452**	0.0035**
Alcoholic_inflation_12	-0.8493	0.4277
Energy_inflation_1	-3.7515***	0.0235***
Energy_inflation_2	0.7905	2.2045
Energy_inflation_3	-2.389**	0.0917**
Energy_inflation_4	0.2043	1.2266
Energy_inflation_5	-1.7175	0.1795
Energy_inflation_6	0.2296	1.2581
Energy_inflation_7	-0.1873	0.8292
Energy_inflation_8	0.3713	1.4497
Energy_inflation_9	1.337	3.8077
Energy_inflation_10	-1.763	0.1715
Energy_inflation_11	-0.8546	0.4254
Energy_inflation_12	4.7923***	120.578***
Non_energy_goods_inflation_1	0.5983	1.8191
Non_energy_goods_inflation_2	5.061**	157.7494**
Non_energy_goods_inflation_3	2.8567	17.404
Non_energy_goods_inflation_4	-2.0214	0.1325
Non_energy_goods_inflation_5	1.227	3.4109
Non_energy_goods_inflation_6	2.0297	7.6119
Non_energy_goods_inflation_7	-0.5508	0.5765
Non_energy_goods_inflation_8	-1.8636	0.1551
Non_energy_goods_inflation_9	-2.7804	0.062
Non_energy_goods_inflation_10	0.1462	1.1575
Non_energy_goods_inflation_11	-0.7592	0.468
Non_energy_goods_inflation_12	-4.9826**	0.0069**
Housing_services_inflation_1	-18.9496***	0***
Housing_services_inflation_2	-5.5811	0.0038
Housing_services_inflation_3	11.703**	120930**
Housing_services_inflation_4	9.8506*	18969.4334*
Housing_services_inflation_5	-2.7663	0.0629
Housing_services_inflation_6	13.2411**	563030**
Housing_services_inflation_7	11.7596*	127980*
Housing_services_inflation_8	-9.3459	0.0001
Housing_services_inflation_9	-23.3569***	0***
Housing_services_inflation_10	-18.1351***	0***
Housing_services_inflation_11	14.3222**	1659800**
Housing_services_inflation_12	-20.9741***	0***
Transport/travel_services_inflation_1	4.1394**	62.7651**
Transport/travel_services_inflation_2	0.1154	1.1224

Transport/travel_services_inflation_3	8.2489***	3823.4804***
Transport/travel_services_inflation_4	-6.2046***	0.002***
Transport/travel_services_inflation_5	-0.7267	0.4835
Transport/travel_services_inflation_6	-0.27	0.7634
Transport/travel_services_inflation_7	1.8268	6.214
Transport/travel_services_inflation_8	4.7128**	111.3619**
Transport/travel_services_inflation_9	2.3316	10.2946
Transport/travel_services_inflation_10	3.6284*	37.6543*
Transport/travel_services_inflation_11	1.1542	3.1714
Transport/travel_services_inflation_12	3.6068*	36.8466*
Communication_inflation_1	-3.9843*	0.0186*
Communication_inflation_2	-8.3127***	0.0002***
Communication_inflation_3	-2.9741	0.0511
Communication_inflation_4	0.4061	1.501
Communication_inflation_5	-2.2889	0.1014
Communication_inflation_6	4.6913*	108.9941*
Communication_inflation_7	-8.3559***	0.0002***
Communication_inflation_8	6.1693**	477.859**
Communication_inflation_9	-6.2761**	0.0019**
Communication_inflation_10	3.8098	45.1413
Communication_inflation_11	0.8004	2.2264
Communication_inflation_12	3.7588	42.898
Recreational/personal_services_inflation_1	-39.2224***	0***
Recreational/personal_services_inflation_2	15.194*	3969000*
Recreational/personal_services_inflation_3	-2.2222	0.1084
Recreational/personal_services_inflation_4	3.317	27.577
Recreational/personal_services_inflation_5	20.4543**	764160000**
Recreational/personal_services_inflation_6	17.4977**	39734000**
Recreational/personal_services_inflation_7	16.8651**	21108000**
Recreational/personal_services_inflation_8	8.8391	6898.477
Recreational/personal_services_inflation_9	42.1787***	207960000000000000000000***
Recreational/personal_services_inflation_10	14.9629*	3149900*
Recreational/personal_services_inflation_11	3.0415	20.9366
Recreational/personal_services_inflation_12	13.2892*	590770*
Miscellaneous_services_inflation_1	2.4281	11.3368
Miscellaneous_services_inflation_2	-13.098**	0**
Miscellaneous_services_inflation_3	11.2266**	75101.1553**
Miscellaneous_services_inflation_4	10.7252**	45489.0389**
Miscellaneous_services_inflation_5	19.1225***	201750000***
Miscellaneous_services_inflation_6	-4.873	0.0077
Miscellaneous_services_inflation_7	-27.4441***	0***
Miscellaneous_services_inflation_8	-8.2502*	0.0003*
Miscellaneous_services_inflation_9	-6.2946	0.0018

Miscellaneous_services_inflation_10	-24.7973***	0***
Miscellaneous_services_inflation_11	-13.7824***	0***
Miscellaneous_services_inflation_12	-12.0989**	0**
Food/Non_alcoholic_expenditure	-0.2228	0.8003
Alcoholic_expenditure	0.1157	1.1227
Energy_expenditure	0.0887	1.0927
Non_energy_goods_expenditure	-0.1436	0.8663
Housing_services_expenditure	0.8834**	2.419**
Transport/travel_services_expenditure	-0.5713*	0.5648*
Communication_expenditure	-0.3462	0.7073
Recreational/personal_services_expenditure	-0.1325	0.8759
Miscellaneous_services_expenditure	-0.3713	0.6898

Communication Services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	-0.0985	0.9062	0.0238	1.0241
SW	0.0427	1.0437	-0.0395	0.9612
East_Anglia	0.0192	1.0194	-0.0667	0.9355
East_Midlands	-0.0376	0.9631	-0.047	0.9541
West_Midlands	0.0122	1.0123	0.0179	1.018
Yorks_Humber	-0.0049	0.9951	0.0033	1.0033
NW	-0.0875	0.9162	0.0442	1.0451
North	0.0198	1.02	0.0395	1.0403
Wales	0.0557	1.0572	0.0252	1.0255
Scotland	0.0074	1.0074	-0.0129	0.9872
	-			
	0.2957**			
NI	*	0.744***	0.0318	1.0323
FEB	-0.1883	0.8284	-0.0511	0.9502
MAR	0.0231	1.0233	0.0081	1.0081
APR	-0.1892	0.8276	-0.0187	0.9814
MAY	-0.0924	0.9117	-0.1189	0.8879
JUN	-0.0578	0.9439	0.098	1.103
JUL	0.2429	1.2749	-0.1652	0.8477
AUG	-0.0159	0.9842	0.0362	1.0368
SEP	0.0694	1.0719	0.0219	1.0222
OCT	0.2346	1.2644	0.0723	1.075
NOV	0.1783	1.1951	0.0136	1.0137
DEC	0.0598	1.0617	-0.0549	0.9466
Wage	-0.141**	1.1514**	0.0534	1.0549

	0.1994**		0.4875**	
independent	*	1.2207***	*	1.6283***
Tax	2.9825**	19.7362**	-0.4205	0.6567
NX	0.0487**	1.0499**	-0.1809*	0.8345*
	-			
	0.1244**			
nine_ending	*	0.883***	0.0315	1.032
	-			
zero_ending	0.2209**	0.8018**	-0.102**	0.903**
			0.2265**	
Sales	0.1186**	1.1259**	*	1.2542***
	0.2825**		0.1101**	
market_share	*	1.3265***	*	1.1164***
			-	
			0.2314**	
increase_increase	0.0768	1.0799	*	0.7934***
			-	
			0.1389**	
increase_decrease	0.0754	1.0783	*	0.8703***
	0.2658**			
decrease_decrease	*	1.3045***	-0.0245	0.9758
Oil	-0.1487	0.8618	0.161	1.1747
oil_1	0.0067	1.0067	0.003	1.003
			-	
oil_2	-0.0027	0.9973	0.0068**	0.9932**
oil_3	-0.0051	0.9949	-0.0004	0.9996
oil_4	-0.0028	0.9972	0.0011	1.0011
oil_5	0.0016	1.0017	-0.0052	0.9948
	-			
oil_6	0.0095**	0.9906**	0.0027	1.0027
			-	
oil_7	-0.0004	0.9996	0.0085**	0.9915**
oil_8	0.002	1.002	0.0005	1.0005
			-	
oil_9	0.0008	1.0008	0.0084**	0.9916**
oil_10	-0.0004	0.9996	0.0063*	1.0063*
oil_11	0.0045	1.0045	0.0032	1.0032
oil_12	-0.0053	0.9948	-0.0036	0.9964
inflation_1	-0.3781	0.6852	15.7475	6903300
inflation_2	10.2297	27714.92	-0.1345	0.8741
inflation_3	24.2582	3.43E+10	0.9068	2.4765
inflation_4	-9.3027	0.0001	-6.2504	0.0019
inflation_5	-1.8336	0.1598	1.964	7.1275
inflation_6	6.4359	623.8485	7.8665	2608.376
inflation_7	-1.8603	0.1556	3.0773	21.7004
inflation_8	-3.8128	0.0221	-4.026	0.0178

			-	
inflation_9	1.3526	3.8673	10.9094	0
inflation_10	1.9273	6.8711	1.2427	3.4651
inflation_11	3.2096	24.7695	-0.0985	0.9062
inflation_12	-7.5475	0.0005	-0.7733	0.4615
			-	
R	1.3469	3.8455	0.6584**	0.5177**
R_1	-0.0057	0.9943	0.0004	1.0004
			-	
R_2	0.0186*	1.0188*	0.0073**	0.9927**
R_3	-0.0069	0.9931	0.0001	1.0001
R_4	-0.0022	0.9978	-0.0041	0.9959
R_5	0.008	1.008	-0.001	0.999
R_6	0.0025	1.0025	0.0033	1.0033
R_7	-0.0163	0.9838	0	1
R_8	0.0031	1.0031	0.0008	1.0008
R_9	0.0049	1.0049	0.014***	1.0141***
R_10	0.0239**	1.0242**	-0.0003	0.9997
R_11	0.033***	1.0335***	-0.0023	0.9977
R_12	0.0232**	1.0234**	-0.0028	0.9972
			12.3617	
Food/Non_alcoholic_inflation_1	-4.061	0.0172	**	233690**
Food/Non_alcoholic_inflation_2	6.7395	845.1757	5.2681	194.0539
	30.0763	115340000000		
Food/Non_alcoholic_inflation_3	***	00***	5.5971	269.6363
	20.426**			
Food/Non_alcoholic_inflation_4	*	742810000***	6.4225	615.5689
			10.5501	
Food/Non_alcoholic_inflation_5	-0.9832	0.3741	*	38179.5781*
	-			
	12.4448			
Food/Non_alcoholic_inflation_6	*	0*	-5.9948	0.0025
	14.4347			
Food/Non_alcoholic_inflation_7	**	1857400**	-0.1489	0.8617
			-	
			10.0353	
Food/Non_alcoholic_inflation_8	7.9462	2824.946	*	0*
	11.8626			
Food/Non_alcoholic_inflation_9	*	141860*	8.7005*	6006.0817*
	15.0057			
Food/Non_alcoholic_inflation_10	**	3287600**	-9.6153*	0.0001*
Food/Non_alcoholic_inflation_11	1.9017	6.6971	-8.5774*	0.0002*
Food/Non_alcoholic_inflation_12	3.0871	21.9134	1.9365	6.9345
Alcoholic_inflation_1	0.7879	2.1987	-2.2905	0.1012
Alcoholic_inflation_2	-0.6918	0.5007	-1.3986	0.2469
Alcoholic_inflation_3	0.081	1.0844	4.6396	103.5044

Alcoholic_inflation_4	-2.2231	0.1083	3.3855	29.5328
Alcoholic_inflation_5	0.4096	1.5063	6.4429**	628.2151**
Alcoholic_inflation_6	0.3779	1.4592	1.7857	5.9639
Alcoholic_inflation_7	-4.6105	0.0099	-1.0381	0.3541
Alcoholic_inflation_8	6.7646	866.6242	5.406*	222.7403*
			-	
			7.9026**	
Alcoholic_inflation_9	-1.8353	0.1596	*	0.0004***
Alcoholic_inflation_10	10.2965	29630.17	0.5248	1.6901
			-	
			8.9973**	
Alcoholic_inflation_11	-1.2592	0.2839	*	0.0001***
	-			
	12.1573			
Alcoholic_inflation_12	*	0*	-1.6443	0.1932
	-			
	9.0236**			
Energy_inflation_1	*	0.0001***	-0.5248	0.5917
Energy_inflation_2	-1.6036	0.2012	1.7947	6.0176
Energy_inflation_3	-0.9468	0.388	-1.9016	0.1493
Energy_inflation_4	1.7209	5.5894	-0.3885	0.678
Energy_inflation_5	3.219	25.0019	-2.7264	0.0655
Energy_inflation_6	2.6046	13.5258	-1.8331	0.1599
Energy_inflation_7	0.3901	1.4771	1.5922	4.9148
Energy_inflation_8	3.0665	21.4672	-0.1903	0.8267
Energy_inflation_9	-3.3531	0.035	-1.4388	0.2372
Energy_inflation_10	0.1381	1.1481	-0.8924	0.4097
Energy_inflation_11	-2.0136	0.1335	2.5853	13.2671
Energy_inflation_12	4.1881	65.8993	1.5214	4.5785
Non_energy_goods_inflation_1	2.553	12.8459	-2.171	0.1141
Non_energy_goods_inflation_2	3.1394	23.0897	5.2044	182.0783
Non_energy_goods_inflation_3	2.6546	14.2197	-4.1645	0.0155
Non_energy_goods_inflation_4	-1.3046	0.2713	-1.1611	0.3132
Non_energy_goods_inflation_5	0.7076	2.0292	-1.3884	0.2495
Non_energy_goods_inflation_6	-3.7018	0.0247	3.0724	21.5926
Non_energy_goods_inflation_7	-0.0275	0.9729	2.7457	15.5756
Non_energy_goods_inflation_8	-4.0479	0.0175	-1.8816	0.1523
Non_energy_goods_inflation_9	-0.529	0.5892	-0.4491	0.6382
Non_energy_goods_inflation_10	-2.7307	0.0652	1.6627	5.2736
Non_energy_goods_inflation_11	4.4256	83.5655	-1.407	0.2449
Non_energy_goods_inflation_12	-3.4234	0.0326	-3.4189	0.0327
Housing_services_inflation_1	-9.8872	0.0001	-0.1975	0.8208
	-			
Housing_services_inflation_2	11.4413	0	-4.7053	0.009

			59.419**	
Housing_services_inflation_3	8.6376	5639.747	*	6.3874E+25***
Housing_services_inflation_4	0.4228	1.5263	6.1801	483.0543
		194950000000	-	
Housing_services_inflation_5	25.996**	**	20.8119	0
	-		28.6948	
Housing_services_inflation_6	10.5985	0	*	2897400000000*
Housing_services_inflation_7	14.2193	1497400	14.7733	2605900
Housing_services_inflation_8	0.7294	2.0739	15.2247	4092800
Housing_services_inflation_9	-3.5266	0.0294	8.3165	4090.902
			-	
Housing_services_inflation_10	-4.7194	0.0089	17.9858	0
	27.9375	135860000000		
Housing_services_inflation_11	**	0**	-9.1105	0.0001
	-			
Housing_services_inflation_12	10.0528	0	5.4691	237.2363
Transport/travel_services_inflatio				
n_1	0.6219	1.8625	2.6908	14.7432
Transport/travel_services_inflatio			-	
n_2	7.1189	1235.061	5.3952**	0.0045**
Transport/travel_services_inflatio			8.9704**	
n_3	-2.405	0.0903	*	7866.6464***
Transport/travel_services_inflatio				
n_4	-5.3787	0.0046	-3.158	0.0425
	-			
Transport/travel_services_inflatio	13.1927			
n_5	***	0***	1.2671	3.5507
Transport/travel_services_inflatio				
n_6	6.0755	435.0742	-1.2273	0.2931
Transport/travel_services_inflatio				
n_7	0.6843	1.9823	4.1571	63.8859
Transport/travel_services_inflatio				
n_8	6.7528	856.437	3.4687	32.0959
Transport/travel_services_inflatio				
n_9	-3.3523	0.035	-2.3298	0.0973
Transport/travel_services_inflatio				
n_10	1.5448	4.6868	4.1049	60.6393
Transport/travel_services_inflatio				
n_11	-1.4708	0.2297	-1.6176	0.1984
Transport/travel_services_inflatio				
n_12	2.8474	17.2429	2.0264	7.5865
Communication_inflation_1	-2.4981	0.0822	-0.4511	0.6369
			-	
			14.3211	
Communication_inflation_2	-3.2613	0.0383	***	0***
	-			
Communication_inflation_3	15.974**	0**	-7.785*	0.0004*
Communication_inflation_4	-6.6276	0.0013	0.8194	2.2691

Communication_inflation_5	-6.1686	0.0021	5.8192	336.6965
Communication_inflation_6	3.97	52.9858	1.2198	3.3866
	-			
Communication_inflation_7	19.1097	0***	-3.364	0.0346
	-			
Communication_inflation_8	13.9699	0**	3.9934	54.2388
Communication_inflation_9	-5.2039	0.0055	-5.8151	0.003
Communication_inflation_10	2.3983	11.0042	6.5519*	700.5792*
			9.7825**	
Communication_inflation_11	-0.4644	0.6285	*	17720.605***
	-			
Communication_inflation_12	12.1434	0*	12.3971	242110***
	*		***	
			-	
Recreational/personal_services_inflation_1	-		22.2118	
	28.0956	0	*	0*
Recreational/personal_services_inflation_2	27.8533	1.25E+12	5.0732	159.68
Recreational/personal_services_inflation_3	55.8927	1.8788E+24***	-	0
	***		16.3263	
Recreational/personal_services_inflation_4	-		25.5256	
	27.9274	0	**	121800000000**
Recreational/personal_services_inflation_5	-9.0888	0.0001	44.7794	2801800000000000
			***	0000***
Recreational/personal_services_inflation_6	78.6006		-	
	***	1.3671E+34***	17.3061	0
Recreational/personal_services_inflation_7	1.4794	4.3903	13.131	504310
Recreational/personal_services_inflation_8	27.4696	8.51E+11	29.621**	7315500000000**
Recreational/personal_services_inflation_9	10.8152	49770.03	37.5598	2051300000000000
			***	0***
Recreational/personal_services_inflation_10	-			
	11.8502	0	5.7152	303.4476
Recreational/personal_services_inflation_11	-			
	16.2553	0	11.2043	73444.15
Recreational/personal_services_inflation_12	-11.087	0	12.7645	349590
Miscellaneous_services_inflation_1	13.7614	947340	-0.316	0.7291
			-	
Miscellaneous_services_inflation_2	-4.8801	0.0076	16.0695	
			*	0*
Miscellaneous_services_inflation_3	6.4023	603.2108	19.331**	248520000**
Miscellaneous_services_inflation	-1.5928	0.2034	10.6607	42646.13

_4				
Miscellaneous_services_inflation	19.4807			
_5	*	288650000*	-3.7558	0.0234
Miscellaneous_services_inflation				
_6	-5.7848	0.0031	11.0335	61914.01
-				
Miscellaneous_services_inflation	32.2197			
_7	***	0***	-13.366	0
Miscellaneous_services_inflation	-			
_8	14.3998	0	-1.6961	0.1834
Miscellaneous_services_inflation			-	
_9	2.3875	10.8868	12.1127	0
-			-	
Miscellaneous_services_inflation	35.0172		26.7249	
_10	***	0***	***	0***
Miscellaneous_services_inflation	-			
_11	10.0454	0	1.5958	4.9325
-			-	
Miscellaneous_services_inflation			17.5693	
_12	4.6423	103.7785	*	0*
Food/Non_alcoholic_expenditure	-3.2077	0.0405	-0.0722	0.9304
Alcoholic_expenditure	-0.595	0.5516	-0.0275	0.9729
Energy_expenditure	0.0089	1.0089	0.2137	1.2383
Non_energy_goods_expenditure	4.2567	70.5769	-0.1626	0.8499
	6.5651**			
Housing_services_expenditure	*	709.8894***	0.0056	1.0056
Transport/travel_services_expenditure	-0.9206	0.3983	-0.1736	0.8407
Communication_expenditure	0.5614	1.7531	-0.2938	0.7454
Recreational/personal_services_expenditure	0.912	2.4893	-0.2538	0.7758
Miscellaneous_services_expenditure	1.7838	5.9526	-0.4108	0.6631

Communication Services		
without sales	full sample	
	coef	H.R.
SE	0.0243	1.0246
SW	-0.0345	0.9661
East_Anglia	-0.0431	0.9579
East_Midlands	-0.0125	0.9876
West_Midlands	-0.006	0.994
Yorks_Humber	-0.0239	0.9764
NW	0.0119	1.012

North	0.0148	1.0149
Wales	-0.0027	0.9973
Scotland	0.028	1.0284
NI	-0.0529	0.9485
FEB	-0.0371	0.9635
MAR	0.0625	1.0645
APR	-0.1458	0.8643
MAY	-0.1209	0.8861
JUN	0.0014	1.0014
JUL	0.0313	1.0318
AUG	0.049	1.0502
SEP	0.1494	1.1611
OCT	0.3546***	1.4257***
NOV	0.0331	1.0337
DEC	-0.0359	0.9648
wage	7.858***	2586.4436***
independent	0.3258***	1.3851***
tax	0.0309	1.0314
NX	0.0438**	1.0448**
nine_ending	-0.0656**	0.9365**
zero_ending	-0.1406***	0.8689***
market_share	0.0403	1.0411
increase_increase	-0.0756**	0.9272**
increase_decrease	0.0186	1.0188
decrease_decrease	-0.0281	0.9723
oil	-0.587***	0.556***
oil_1	0.004*	1.004*
oil_2	-0.0018	0.9982
oil_3	-0.0054**	0.9947**
oil_4	-0.004*	0.996*
oil_5	-0.0047**	0.9953**
oil_6	0.0026	1.0026
oil_7	-0.0008	0.9992
oil_8	-0.0013	0.9987
oil_9	-0.0022	0.9978
oil_10	0.0076***	1.0076***
oil_11	0.0069***	1.0069***
oil_12	-0.0084***	0.9916***
inflation_1	7.7769	2384.913
inflation_2	7.6874	2180.805
inflation_3	11.7502	126770
inflation_4	12.6741	319370
inflation_5	-14.1152	0

inflation_6	4.0427	56.9775
inflation_7	-20.1571**	0**
inflation_8	-1.8777	0.1529
inflation_9	-14.2296	0
inflation_10	-3.4929	0.0304
inflation_11	-1.5164	0.2195
inflation_12	7.2495	1407.466
R	-0.1567	0.855
R_1	0.0025	1.0025
R_2	-0.0059**	0.9942**
R_3	-0.0011	0.9989
R_4	-0.0042	0.9959
R_5	-0.0048*	0.9952*
R_6	0.0028	1.0028
R_7	0.0127***	1.0128***
R_8	-0.0134***	0.9867***
R_9	0.011***	1.0111***
R_10	-0.0035	0.9965
R_11	0.0098***	1.0098***
R_12	-0.0055**	0.9945**
Food/Non_alcoholic_inflation_1	5.5535	258.1416
Food/Non_alcoholic_inflation_2	3.3053	27.2567
Food/Non_alcoholic_inflation_3	10.0952***	24226.2586***
Food/Non_alcoholic_inflation_4	21.2574***	170600000***
Food/Non_alcoholic_inflation_5	10.2442***	28118.4696***
Food/Non_alcoholic_inflation_6	-4.6413	0.0096
Food/Non_alcoholic_inflation_7	5.8069*	332.5782*
Food/Non_alcoholic_inflation_8	-7.7278**	0.0004**
Food/Non_alcoholic_inflation_9	20.6758***	953630000***
Food/Non_alcoholic_inflation_10	-7.5683**	0.0005**
Food/Non_alcoholic_inflation_11	2.5586	12.9183
Food/Non_alcoholic_inflation_12	-4.4729	0.0114
Alcoholic_inflation_1	-3.0942	0.0453
Alcoholic_inflation_2	0.7555	2.1288
Alcoholic_inflation_3	3.3937	29.7765
Alcoholic_inflation_4	0.7281	2.071
Alcoholic_inflation_5	9.5954***	14696.9657***
Alcoholic_inflation_6	4.6793*	107.6951*
Alcoholic_inflation_7	-1.8462	0.1578
Alcoholic_inflation_8	4.6165*	101.1363*
Alcoholic_inflation_9	1.3079	3.6986
Alcoholic_inflation_10	3.7325	41.7828
Alcoholic_inflation_11	-3.9633	0.019

Alcoholic_inflation_12	6.0732**	434.0752**
Energy_inflation_1	-1.7399	0.1755
Energy_inflation_2	0.3168	1.3728
Energy_inflation_3	-2.4895*	0.083*
Energy_inflation_4	-3.1038**	0.0449**
Energy_inflation_5	-1.6713	0.188
Energy_inflation_6	-1.7424	0.1751
Energy_inflation_7	-0.4936	0.6104
Energy_inflation_8	3.4545**	31.6436**
Energy_inflation_9	2.9275**	18.6802**
Energy_inflation_10	-4.8077***	0.0082***
Energy_inflation_11	-4.7701***	0.0085***
Energy_inflation_12	1.7131	5.5464
Non_energy_goods_inflation_1	1.9945	7.3485
Non_energy_goods_inflation_2	6.1028**	447.0975**
Non_energy_goods_inflation_3	2.1624	8.6921
Non_energy_goods_inflation_4	-2.761	0.0632
Non_energy_goods_inflation_5	-3.4714	0.0311
Non_energy_goods_inflation_6	0.4009	1.4932
Non_energy_goods_inflation_7	1.2838	3.6102
Non_energy_goods_inflation_8	2.0397	7.6881
Non_energy_goods_inflation_9	-2.4396	0.0872
Non_energy_goods_inflation_10	-0.0047	0.9953
Non_energy_goods_inflation_11	3.2685	26.2719
Non_energy_goods_inflation_12	-0.8913	0.4101
Housing_services_inflation_1	13.8769**	1063300**
Housing_services_inflation_2	12.7866*	357400*
Housing_services_inflation_3	1.7374	5.6826
Housing_services_inflation_4	28.3922***	214070000000***
Housing_services_inflation_5	-1.7015	0.1824
Housing_services_inflation_6	22.9515***	9283600000***
Housing_services_inflation_7	5.8597	350.6083
Housing_services_inflation_8	-0.6969	0.4981
Housing_services_inflation_9	-33.8662***	0***
Housing_services_inflation_10	-7.6954	0.0005
Housing_services_inflation_11	27.0732***	57245000000***
Housing_services_inflation_12	2.9963	20.012
Transport/travel_services_inflation_1	2.9716	19.5225
Transport/travel_services_inflation_2	0.1762	1.1926
Transport/travel_services_inflation_3	13.7752***	960450***
Transport/travel_services_inflation_4	-5.009**	0.0067**
Transport/travel_services_inflation_5	-0.117	0.8896
Transport/travel_services_inflation_6	1.2957	3.6534

Transport/travel_services_inflation_7	1.5701	4.8071
Transport/travel_services_inflation_8	7.4115***	1654.9729***
Transport/travel_services_inflation_9	6.9882***	1083.7946***
Transport/travel_services_inflation_10	0.5336	1.7051
Transport/travel_services_inflation_11	-1.156	0.3147
Transport/travel_services_inflation_12	6.5258***	682.4947***
Communication_inflation_1	-3.8924	0.0204
Communication_inflation_2	-2.7265	0.0654
Communication_inflation_3	-2.1226	0.1197
Communication_inflation_4	-5.1672*	0.0057*
Communication_inflation_5	-2.7169	0.0661
Communication_inflation_6	13.2685***	578690***
Communication_inflation_7	-0.9489	0.3872
Communication_inflation_8	10.1196***	24825.4937***
Communication_inflation_9	-7.2722**	0.0007**
Communication_inflation_10	14.133***	1373700***
Communication_inflation_11	-7.0198**	0.0009**
Communication_inflation_12	-4.6248	0.0098
Recreational/personal_services_inflation_1	-33.8468***	0***
Recreational/personal_services_inflation_2	34.4208***	888750000000000***
Recreational/personal_services_inflation_3	0.9858	2.68
Recreational/personal_services_inflation_4	3.5425	34.5521
Recreational/personal_services_inflation_5	47.7541***	5.4873E+20***
Recreational/personal_services_inflation_6	-19.0587**	0**
Recreational/personal_services_inflation_7	30.0912***	11707000000000***
Recreational/personal_services_inflation_8	0.3098	1.3632
Recreational/personal_services_inflation_9	22.7529**	7611000000**
Recreational/personal_services_inflation_10	30.6288***	2004000000000***
Recreational/personal_services_inflation_11	3.3407	28.2393
Recreational/personal_services_inflation_12	12.8378	376170
Miscellaneous_services_inflation_1	10.7176*	45141.5534*
Miscellaneous_services_inflation_2	-20.0997***	0***
Miscellaneous_services_inflation_3	16.6556***	17117000***
Miscellaneous_services_inflation_4	6.387	594.0482
Miscellaneous_services_inflation_5	5.6182	275.388
Miscellaneous_services_inflation_6	-2.3811	0.0925
Miscellaneous_services_inflation_7	-32.3211***	0***
Miscellaneous_services_inflation_8	-20.9093***	0***
Miscellaneous_services_inflation_9	-8.8062	0.0001
Miscellaneous_services_inflation_10	-33.838***	0***
Miscellaneous_services_inflation_11	-5.6021	0.0037
Miscellaneous_services_inflation_12	-20.62***	0***
Food/Non_alcoholic_expenditure	3.6444***	38.2605***

Alcoholic_expenditure	0.6231**	1.8647**
Energy_expenditure	1.0101**	2.746**
Non_energy_goods_expenditure	-4.2156*	0.0148*
Housing_services_expenditure	2.525***	12.4915***
Transport/travel_services_expenditure	2.3667*	10.6621*
Communication_expenditure	-0.1558	0.8557
Recreational/personal_services_expenditure	-4.3554***	0.0128***
Miscellaneous_services_expenditure	-1.3923*	0.2485*

Communication Services Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	-0.0012	0.9988	-0.0131	0.987
SW	-0.0459	0.9551	-0.0672	0.935
East_Anglia	0.0247	1.0251	-0.0679	0.9344
East_Midlands	0.1174	1.1246	-0.1111	0.8949
West_Midlands	-0.0609	0.9409	-0.0136	0.9865
Yorks_Humber	-0.0512	0.9501	-0.0456	0.9554
NW	-0.1449*	0.8651*	0.0533	1.0548
North	0.0129	1.013	0.0187	1.0189
Wales	-0.0976	0.907	0.0288	1.0292
Scotland	0.0298	1.0302	-0.002	0.998
	-			
	0.4345**			
NI	*	0.6476***	0.0156	1.0157
FEB	-0.2574	0.773	0.0699	1.0724
MAR	0.017	1.0172	-0.0564	0.9452
APR	-0.1259	0.8817	-0.0971	0.9074
MAY	-0.0013	0.9988	-0.1696	0.844
JUN	-0.0523	0.9491	0.0604	1.0622
JUL	0.1456	1.1567	-0.0403	0.9605
AUG	0.2254	1.2528	-0.0436	0.9573
SEP	0.1446	1.1556	-0.0001	0.9999
OCT	0.4185*	1.5197*	0.1855	1.2038
NOV	0.038	1.0388	0.0224	1.0226
DEC	-0.0064	0.9936	-0.1782	0.8368
wage	-2.3723	0.0933	4.7602*	116.773*
			0.4485**	
independent	0.1068	1.1128	*	1.5659***
tax	3.2251*	25.1557*	-0.5186	0.5954
			-	
NX	0.0396	1.0404	0.4599**	0.6313***

			*	
nine_ending	-0.0758	0.927	-0.14***	0.8694***
			-	
			0.2687**	
zero_ending	-0.0788	0.9242	*	0.7644***
	0.2588**			
market_share	*	1.2954***	0.0033	1.0033
			-	
increase_increase	-0.0172	0.983	0.136***	0.8728***
increase_decrease	0.022	1.0222	0.0366	1.0373
decrease_decrease	0.0122	1.0123	-0.074	0.9287
	-			
oil	0.8731**	0.4177**	-0.1501	0.8606
	0.0187**			
oil_1	*	1.0188***	-0.0031	0.9969
oil_2	-0.0008	0.9992	0.0004	1.0004
oil_3	-0.0028	0.9972	-0.0075*	0.9925*
oil_4	-0.0071	0.9929	-0.0022	0.9978
oil_5	-0.0003	0.9997	-0.0042	0.9958
oil_6	-0.0027	0.9973	0.0003	1.0003
oil_7	0.007	1.007	-0.008**	0.992**
oil_8	0.0032	1.0032	0.0024	1.0024
oil_9	0.0075	1.0076	-0.0028	0.9972
oil_10	-0.0002	0.9998	0.007*	1.0071*
oil_11	-0.0023	0.9977	0.0083**	1.0083**
oil_12	-0.0061	0.9939	-0.0052	0.9948
inflation_1	2.5417	12.7018	12.8322	374080
inflation_2	1.5335	4.6345	2.8712	17.6589
inflation_3	20.4451	7.57E+08	5.6175	275.2003
inflation_4	9.4219	12356.52	-6.681	0.0013
inflation_5	-1.5384	0.2147	1.6972	5.4586
inflation_6	8.4416	4635.952	5.2157	184.1432
	-		-	
inflation_7	15.0067	0	10.5016	0
inflation_8	-0.3871	0.679	8.9344	7588.508
			-	
inflation_9	-2.7583	0.0634	12.8532	0
inflation_10	9.0843	8815.514	-9.1677	0.0001
inflation_11	0.9263	2.5251	-3.5178	0.0297
	-			
inflation_12	24.8631	0	13.5443	762470
R	1.7713	5.8784	-0.662**	0.5158**
R_1	0.002	1.002	0.0046	1.0046
			-	
R_2	0.0071	1.0072	0.0085**	0.9916**

R_3	0.007	1.007	0.0004	1.0004
R_4	-0.0074	0.9926	-0.0068*	0.9932*
R_5	-0.0198*	0.9804*	-0.0048	0.9952
R_6	-0.0102	0.9898	0.0044	1.0045
R_7	-0.0029	0.9971	0.0086**	1.0086**
			-	
			0.0124**	
R_8	-0.0047	0.9953	*	0.9877***
			0.0131**	
R_9	0.0147	1.0148	*	1.0132***
R_10	-0.0065	0.9935	-0.0011	0.9989
R_11	0.033**	1.0335**	0.0007	1.0007
			-	
R_12	0.033**	1.0336**	0.0077**	0.9923**
Food/Non_alcoholic_inflation_1	6.2536	519.8753	8.1333	3406.089
Food/Non_alcoholic_inflation_2	4.4094	82.2237	10.0426	22984.65
	23.2667			
Food/Non_alcoholic_inflation_3	***	1272400000***	2.5239	12.4776
	25.3229			
Food/Non_alcoholic_inflation_4	***	9944600000***	8.3954	4426.785
Food/Non_alcoholic_inflation_5	6.2798	533.7024	-1.1053	0.3311
	-			
	17.4624			
Food/Non_alcoholic_inflation_6	**	0**	-2.2593	0.1044
Food/Non_alcoholic_inflation_7	-1.9263	0.1457	8.1357	3414.21
Food/Non_alcoholic_inflation_8	5.5205	249.7626	-8.4962	0.0002
	12.6322			
Food/Non_alcoholic_inflation_9	*	306260*	2.2845	9.8209
			-	
			16.8033	
Food/Non_alcoholic_inflation_10	9.9081	20091.93	***	0***
Food/Non_alcoholic_inflation_11	7.2109	1354.132	-2.38	0.0925
	-			
	28.8864			
Food/Non_alcoholic_inflation_12	***	0***	2.0544	7.8022
			-	
			8.2838**	
Alcoholic_inflation_1	-3.34	0.0354	*	0.0003***
Alcoholic_inflation_2	1.487	4.4237	0.5436	1.7222
Alcoholic_inflation_3	-1.7613	0.1718	2.1726	8.7809
Alcoholic_inflation_4	5.481	240.092	0.12	1.1275
Alcoholic_inflation_5	2.6338	13.9267	7.6724**	2148.2949**
Alcoholic_inflation_6	-0.3855	0.6801	4.4721	87.5392
Alcoholic_inflation_7	7.2655	1430.154	0.3383	1.4025
	24.2931			
Alcoholic_inflation_8	***	3551100000***	0.6671	1.9486

Alcoholic_inflation_9	-6.5304	0.0015	-0.6915	0.5008
	12.5013		-	
Alcoholic_inflation_10	*	268690*	7.3968**	0.0006**
			-	
Alcoholic_inflation_11	3.5998	36.5892	7.7949**	0.0004**
Alcoholic_inflation_12	-4.1438	0.0159	-1.3196	0.2673
Energy_inflation_1	-3.4823	0.0307	0.9161	2.4994
Energy_inflation_2	0.576	1.779	1.6554	5.2354
Energy_inflation_3	-1.985	0.1374	-2.171	0.1141
Energy_inflation_4	-0.7143	0.4895	-1.4029	0.2459
Energy_inflation_5	1.4255	4.1598	-3.3634*	0.0346*
Energy_inflation_6	2.562	12.9623	-2.8958	0.0553
Energy_inflation_7	3.132	22.9205	2.6851	14.659
Energy_inflation_8	6.5525**	700.96**	1.3464	3.8437
Energy_inflation_9	2.874	17.7076	-2.1385	0.1178
Energy_inflation_10	-0.5974	0.5503	-2.2192	0.1087
Energy_inflation_11	-4.6399	0.0097	3.1659	23.7113
			5.7978**	
Energy_inflation_12	-4.1389	0.0159	*	329.5854***
Non_energy_goods_inflation_1	1.6935	5.4383	1.3532	3.8698
Non_energy_goods_inflation_2	3.9495	51.9105	5.6709	290.2824
Non_energy_goods_inflation_3	3.2959	27.0013	-3.6289	0.0265
Non_energy_goods_inflation_4	-0.6406	0.527	3.1086	22.3901
Non_energy_goods_inflation_5	-4.4406	0.0118	-2.0124	0.1337
Non_energy_goods_inflation_6	-4.0179	0.018	0.1927	1.2125
Non_energy_goods_inflation_7	-1.3347	0.2632	-0.8688	0.4195
Non_energy_goods_inflation_8	-4.305	0.0135	4.2017	66.8004
Non_energy_goods_inflation_9	-3.1197	0.0442	0.6901	1.9938
Non_energy_goods_inflation_10	-0.6574	0.5182	0.5586	1.7482
Non_energy_goods_inflation_11	3.7101	40.8582	1.8882	6.6072
Non_energy_goods_inflation_12	-2.2426	0.1062	-0.6747	0.5093
Housing_services_inflation_1	12.3897	240300	24.8622	6.27E+10
	-		42.4135	26300000000000
Housing_services_inflation_2	24.9802	0	**	0000**
Housing_services_inflation_3	3.2475	25.7258	29.2221	4.91E+12
	35.9572	4130700000000		
Housing_services_inflation_4	***	000***	8.7779	6489.433
			-	
	21.2724		54.5963	
Housing_services_inflation_5	*	1731700000*	***	0***
				101170000000000
Housing_services_inflation_6	11.6807	118270	36.853**	00**
			31.3845	
Housing_services_inflation_7	3.2155	24.9149	*	42671000000000*
Housing_services_inflation_8	4.3011	73.7822	8.5672	5256.188

			-	
			43.5408	
Housing_services_inflation_9	-20.309	0	**	0**
			-	
			34.0632	
Housing_services_inflation_10	13.7425	929620	*	0*
Housing_services_inflation_11	21.9904	3.55E+09	11.7965	132790
			-	
Housing_services_inflation_12	5.951	384.1225	23.3992	0
Transport/travel_services_inflatio				
n_1	-4.3315	0.0131	5.2534*	191.2158*
Transport/travel_services_inflatio				
n_2	4.9517	141.422	-5.5906*	0.0037*
Transport/travel_services_inflatio				
n_3	9.471	12978.19	9.1217**	9151.3575***
Transport/travel_services_inflatio				
n_4	-3.2636	0.0382	-3.7494	0.0235
			-	
Transport/travel_services_inflatio				
n_5	11.6292	0**	2.2539	9.5244
Transport/travel_services_inflatio				
n_6	0.1692	1.1843	2.5897	13.3254
Transport/travel_services_inflatio				
n_7	3.3484	28.4569	1.9987	7.3797
Transport/travel_services_inflatio				
n_8	10.683*	43608.931*	0.97	2.6379
Transport/travel_services_inflatio				
n_9	1.6858	5.3967	5.0719	159.4729
Transport/travel_services_inflatio				
n_10	0.1454	1.1566	1.6528	5.2218
Transport/travel_services_inflatio				
n_11	-6.5251	0.0015	1.1123	3.0414
Transport/travel_services_inflatio				
n_12	5.2137	183.7638	1.4024	4.0649
Communication_inflation_1	-0.8131	0.4435	-0.9211	0.3981
			-	
			15.8773	
Communication_inflation_2	5.5976	269.7736	***	0***
			-	
Communication_inflation_3	1.3683	3.9287	9.9967**	0**
			-	
	18.5314			
Communication_inflation_4	**	0**	0.9864	2.6817
Communication_inflation_5	-9.3626	0.0001	7.1343	1254.295
	17.4497		10.0606	
Communication_inflation_6	**	37871000**	**	23403.2475**
Communication_inflation_7	-0.1891	0.8277	-7.314	0.0007
Communication_inflation_8	-	0*	6.7173	826.6144

	15.0644			
	*			
			-	
Communication_inflation_9	9.3564	11572.5	16.2144	0***

Communication_inflation_10	6.1474	467.5185	17.939**	61777000***
			*	
	-			
Communication_inflation_11	13.0805	0*	-1.6118	0.1995
	*			
	-			
Communication_inflation_12	13.8588	0*	2.6822	14.6179
	*			
	-			
Recreational/personal_services_inflation_1	65.7101	0***	-4.0997	0.0166

Recreational/personal_services_inflation_2	37.1534	1.37E+16	40.2626	30607000000000
			**	000**
			-	
Recreational/personal_services_inflation_3	35.3848	2.33E+15	32.5389	0**
			**	
	-			
Recreational/personal_services_inflation_4	41.3929	0**	29.2991	5302100000000*
	**		*	
Recreational/personal_services_inflation_5	20.3462	6.86E+08	66.0319	4.7564E+28***

			-	
Recreational/personal_services_inflation_6	30.6352	2.02E+13	36.6571	0**
			**	
Recreational/personal_services_inflation_7	13.0454	462950	6.369	583.4923
Recreational/personal_services_inflation_8	-	0	36.0407	44902000000000
			**	0**
Recreational/personal_services_inflation_9	23.3018	1.32E+10	15.5439	5631800
Recreational/personal_services_inflation_10	20.5626	8.52E+08	-3.2357	0.0393
Recreational/personal_services_inflation_11	20.4448	7.57E+08	-5.0173	0.0066
Recreational/personal_services_inflation_12	-	0	3.6753	39.4609
Miscellaneous_services_inflation_1	8.9545	7742.963	6.3165	553.6564
Miscellaneous_services_inflation_2	-3.2321	0.0395	-8.3465	0.0002
Miscellaneous_services_inflation_3	21.7728	2.86E+09	27.8124	1198900000000**
			**	
Miscellaneous_services_inflation_4	0.2313	1.2602	28.3315	2014800000000**
			**	

Miscellaneous_services_inflation				
_5	19.0619	1.9E+08	-2.0672	0.1265
Miscellaneous_services_inflation			28.0348	
_6	7.5804	1959.403	**	1497400000000**
	-			
Miscellaneous_services_inflation	26.1722			
_7	**	0**	1.0432	2.8383
Miscellaneous_services_inflation			-	
_8	-4.6551	0.0095	15.5323	0
Miscellaneous_services_inflation				
_9	-8.9545	0.0001	-3.8496	0.0213
			-	
Miscellaneous_services_inflation	-		23.8175	
_10	51.23***	0***	**	0**
	-			
Miscellaneous_services_inflation	23.8605			
_11	*	0*	8.2674	3894.842
Miscellaneous_services_inflation				
_12	13.3367	0	18.2955	88236000
Food/Non_alcoholic_expenditure	7.9571**	2855.7517**	-1.0507	0.3497
Alcoholic_expenditure	-4.5189*	0.0109*	0.3837	1.4678
Energy_expenditure	1.0396	2.8282	2.217***	9.1794***
Non_energy_goods_expenditure	-2.0368	0.1304	-1.5394	0.2145
Housing_services_expenditure	1.2581	3.5188	1.7327	5.656
Transport/travel_services_expen			4.9926**	
diture	1.2228	3.3965	*	147.3236***
Communication_expenditure	1.6133	5.0193	-1.66**	0.1901**
			-	
Recreational/personal_services_			6.7911**	
expenditure	-1.9137	0.1475	*	0.0011***
Miscellaneous_services_expendit				
ure	-2.4917	0.0828	-0.0374	0.9633

Recreational/Personal Services			
	with sales	full sample	
		coef	H.R.
SE		0.0278***	1.0281***
SW		-0.0154***	0.9847***
East_Anglia		-0.0288***	0.9716***
East_Midlands		-0.0062	0.9938
West_Midlands		0.002	1.002
Yorks_Humber		-0.0149**	0.9852**
NW		0.0498***	1.0511***
North		-0.0461***	0.9549***

Wales	-0.0449***	0.9561***
Scotland	0.0015	1.0015
NI	-0.0125	0.9876
FEB	-0.0201	0.9801
MAR	0.0343**	1.0349**
APR	-0.03**	0.9704**
MAY	0.014	1.0141
JUN	0.0174	1.0176
JUL	0.0105	1.0106
AUG	-0.0191	0.9811
SEP	-0.0229	0.9773
OCT	0.0167	1.0168
NOV	0.07***	1.0725***
DEC	-0.0145	0.9856
wage	0.4483***	1.5656***
independent	0.143***	1.1538***
tax	-0.7244***	0.4846***
NX	-0.0364***	0.9643***
nine_ending	-0.0009	0.9991
zero_ending	-0.0315***	0.969***
sales	0.55***	1.7333***
market_share	0.0081***	1.0081***
increase_increase	-0.3912***	0.6762***
increase_decrease	-0.1287***	0.8792***
decrease_decrease	0.0562***	1.0578***
oil	0.0778***	1.0809***
oil_1	0.0015***	1.0015***
oil_2	0.0026***	1.0026***
oil_3	0.0006**	1.0006**
oil_4	0.0009***	1.0009***
oil_5	0.0006**	1.0006**
oil_6	0.0001	1.0001
oil_7	-0.0005*	0.9995*
oil_8	-0.0004	0.9996
oil_9	-0.0019***	0.9981***
oil_10	-0.0013***	0.9987***
oil_11	-0.004***	0.996***
oil_12	-0.0023***	0.9977***
inflation_1	-3.6448***	0.0261***
inflation_2	-0.8364	0.4333
inflation_3	8.0793***	3226.9263***
inflation_4	5.0124***	150.2718***
inflation_5	3.224***	25.1276***

inflation_6	-1.9203*	0.1466*
inflation_7	-2.8097***	0.0602***
inflation_8	2.9768***	19.6252***
inflation_9	-0.1511	0.8598
inflation_10	1.9041*	6.7131*
inflation_11	-0.603	0.5472
inflation_12	1.5156	4.5519
R	-0.1508***	0.86***
R_1	-0.0012***	0.9988***
R_2	-0.0004	0.9996
R_3	-0.0009***	0.9991***
R_4	-0.0018***	0.9982***
R_5	-0.0024***	0.9976***
R_6	-0.0014***	0.9986***
R_7	0.0004	1.0004
R_8	0.0002	1.0002
R_9	0.0006*	1.0006*
R_10	0.0014***	1.0014***
R_11	0.0026***	1.0026***
R_12	0.0005*	1.0005*
Food/Non_alcoholic_inflation_1	1.2778***	3.5888***
Food/Non_alcoholic_inflation_2	2.1732***	8.7867***
Food/Non_alcoholic_inflation_3	-1.0449***	0.3517***
Food/Non_alcoholic_inflation_4	3.3915***	29.7092***
Food/Non_alcoholic_inflation_5	-0.1815	0.834
Food/Non_alcoholic_inflation_6	1.08***	2.9446***
Food/Non_alcoholic_inflation_7	-0.7507**	0.472**
Food/Non_alcoholic_inflation_8	0.3985	1.4895
Food/Non_alcoholic_inflation_9	-1.6126***	0.1994***
Food/Non_alcoholic_inflation_10	-1.0985***	0.3334***
Food/Non_alcoholic_inflation_11	0.3157	1.3713
Food/Non_alcoholic_inflation_12	0.8543**	2.3497**
Alcoholic_inflation_1	-1.5743***	0.2072***
Alcoholic_inflation_2	-2.6635***	0.0697***
Alcoholic_inflation_3	-1.9215***	0.1464***
Alcoholic_inflation_4	-1.9501***	0.1423***
Alcoholic_inflation_5	-1.5059***	0.2218***
Alcoholic_inflation_6	-1.3849***	0.2503***
Alcoholic_inflation_7	-0.8668***	0.4203***
Alcoholic_inflation_8	2.6621***	14.327***
Alcoholic_inflation_9	0.9013***	2.4628***
Alcoholic_inflation_10	2.6054***	13.5363***
Alcoholic_inflation_11	1.2361***	3.442***

Alcoholic_inflation_12	0.5304**	1.6997**
Energy_inflation_1	0.4215***	1.5242***
Energy_inflation_2	-1.1502***	0.3166***
Energy_inflation_3	-0.4566***	0.6334***
Energy_inflation_4	-0.1586	0.8534
Energy_inflation_5	-0.1367	0.8722
Energy_inflation_6	0.3019**	1.3524**
Energy_inflation_7	0.7161***	2.0464***
Energy_inflation_8	-0.2118	0.8091
Energy_inflation_9	0.3158**	1.3713**
Energy_inflation_10	0.7304***	2.076***
Energy_inflation_11	1.1099***	3.034***
Energy_inflation_12	0.562***	1.7542***
Non_energy_goods_inflation_1	0.1577	1.1708
Non_energy_goods_inflation_2	-0.99***	0.3716***
Non_energy_goods_inflation_3	-0.3113	0.7325
Non_energy_goods_inflation_4	0.6333**	1.8837**
Non_energy_goods_inflation_5	1.0612***	2.8899***
Non_energy_goods_inflation_6	0.0674	1.0697
Non_energy_goods_inflation_7	-0.8801***	0.4148***
Non_energy_goods_inflation_8	-0.2602	0.7709
Non_energy_goods_inflation_9	0.1701	1.1854
Non_energy_goods_inflation_10	0.0758	1.0788
Non_energy_goods_inflation_11	0.8161***	2.2618***
Non_energy_goods_inflation_12	-0.2862	0.7511
Housing_services_inflation_1	-5.6637***	0.0035***
Housing_services_inflation_2	-7.5765***	0.0005***
Housing_services_inflation_3	-4.687***	0.0092***
Housing_services_inflation_4	-3.5484***	0.0288***
Housing_services_inflation_5	-1.363*	0.2559*
Housing_services_inflation_6	-3.6198***	0.0268***
Housing_services_inflation_7	-8.5457***	0.0002***
Housing_services_inflation_8	-8.0651***	0.0003***
Housing_services_inflation_9	-0.9673	0.3801
Housing_services_inflation_10	0.922	2.5144
Housing_services_inflation_11	3.3164***	27.5616***
Housing_services_inflation_12	-3.7533***	0.0234***
Transport/travel_services_inflation_1	0.145	1.156
Transport/travel_services_inflation_2	1.1894***	3.2851***
Transport/travel_services_inflation_3	2.6299***	13.8721***
Transport/travel_services_inflation_4	1.4537***	4.2787***
Transport/travel_services_inflation_5	3.341***	28.2465***
Transport/travel_services_inflation_6	2.2999***	9.9736***

Transport/travel_services_inflation_7	1.5819***	4.8642***
Transport/travel_services_inflation_8	2.406***	11.0897***
Transport/travel_services_inflation_9	1.2662***	3.5472***
Transport/travel_services_inflation_10	1.4793***	4.3899***
Transport/travel_services_inflation_11	0.2891	1.3352
Transport/travel_services_inflation_12	1.0646***	2.8998***
Communication_inflation_1	0.0035	1.0035
Communication_inflation_2	-0.811***	0.4444***
Communication_inflation_3	-0.4583	0.6324
Communication_inflation_4	1.1144***	3.0477***
Communication_inflation_5	0.7964***	2.2176***
Communication_inflation_6	1.3281***	3.7737***
Communication_inflation_7	0.6299**	1.8774**
Communication_inflation_8	-2.5164***	0.0808***
Communication_inflation_9	-0.8077***	0.4459***
Communication_inflation_10	0.2292	1.2576
Communication_inflation_11	0.3384	1.4027
Communication_inflation_12	-1.0929***	0.3352***
Recreational/personal_services_inflation_1	10.6371***	41651.4942***
Recreational/personal_services_inflation_2	16.9797***	23669000***
Recreational/personal_services_inflation_3	12.9656***	427440***
Recreational/personal_services_inflation_4	10.9374***	56243.0763***
Recreational/personal_services_inflation_5	12.9787***	433100***
Recreational/personal_services_inflation_6	6.1531***	470.1961***
Recreational/personal_services_inflation_7	4.3324***	76.1297***
Recreational/personal_services_inflation_8	9.3049***	10991.5404***
Recreational/personal_services_inflation_9	9.2553***	10459.6165***
Recreational/personal_services_inflation_10	11.778***	130360***
Recreational/personal_services_inflation_11	8.6825***	5898.6225***
Recreational/personal_services_inflation_12	5.4288***	227.8738***
Miscellaneous_services_inflation_1	-0.2224	0.8006
Miscellaneous_services_inflation_2	4.7095***	111.0004***
Miscellaneous_services_inflation_3	1.4421**	4.2297**
Miscellaneous_services_inflation_4	1.9616***	7.111***
Miscellaneous_services_inflation_5	-0.6691	0.5122
Miscellaneous_services_inflation_6	-4.0873***	0.0168***
Miscellaneous_services_inflation_7	-5.8734***	0.0028***
Miscellaneous_services_inflation_8	-6.3369***	0.0018***
Miscellaneous_services_inflation_9	-9.6631***	0.0001***
Miscellaneous_services_inflation_10	-6.5062***	0.0015***
Miscellaneous_services_inflation_11	-7.7226***	0.0004***
Miscellaneous_services_inflation_12	-7.508***	0.0005***
Food/Non_alcoholic_expenditure	-0.0723	0.9303

Alcoholic_expenditure	0.2049***	1.2274***
Energy_expenditure	-0.0049	0.9951
Non_energy_goods_expenditure	-0.0474	0.9537
Housing_services_expenditure	0.5693***	1.767***
Transport/travel_services_expenditure	-0.0158	0.9843
Communication_expenditure	-0.1448**	0.8652**
Recreational/personal_services_expenditure	-0.1248**	0.8826**
Miscellaneous_services_expenditure	-0.3547***	0.7014***

Recreational/Personal Services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	coef	H.R.	coef	H.R.
SE	0.0906***	1.0948***	-0.0007	0.9993
SW	-0.026***	0.9744***	-0.0058	0.9943
East_Anglia	-0.0147	0.9854	-0.0138*	0.9863*
East_Midlands	-0.0071	0.9929	-0.0183**	0.9818**
West_Midlands	0.0061	1.0061	0.0026	1.0026
Yorks_Humber	-0.037***	0.9636***	-0.0029	0.9971
NW	0.0319***	1.0324***	0.0451***	1.0462***
North	-0.0209*	0.9793*	-0.0596***	0.9421***
Wales	-0.0869***	0.9168***	-0.0292***	0.9713***
Scotland	-0.0273***	0.9731***	0.0224***	1.0227***
NI	-0.0556***	0.9459***	-0.0005	0.9995
FEB	-0.0203	0.9799	-0.008	0.992
MAR	0.1317***	1.1408***	-0.0332*	0.9673*
APR	-0.0277	0.9726	-0.0376**	0.9631**
MAY	0.014	1.0141	0.001	1.001
JUN	-0.0056	0.9944	0.0375*	1.0383*
JUL	-0.0433*	0.9576*	-0.0185	0.9817
AUG	-0.0186	0.9816	-0.0288	0.9716
SEP	-0.0634**	0.9386**	-0.0078	0.9923
OCT	0.0072	1.0073	0.0461**	1.0472**
NOV	0.0223	1.0226	0.043**	1.0439**
DEC	-0.0125	0.9875	0.0182	1.0183
wage	-0.8783***	2.4068***	0.7339***	2.0832***
independent	-0.0204***	0.9798***	0.2259***	1.2534***
tax	-2.9968***	0.0499***	-0.5948***	0.5517***
NX	0.0404***	1.0412***	-0.2297***	0.7948***
nine_ending	0.0377***	1.0384***	-0.0023	0.9977
zero_ending	0.0133**	1.0134**	-0.0356***	0.9651***
sales	0.4806***	1.617***	0.5522***	1.737***

market_share	0.0163***	1.0165***	0.002***	1.002***
increase_increase	-0.3709***	0.6901***	-0.4204***	0.6568***
increase_decrease	-0.0968***	0.9077***	-0.1527***	0.8583***
decrease_decrease	0.0794***	1.0826***	0.0478***	1.049***
oil	-0.0359	0.9648	0.0342	1.0348
oil_1	-0.0003	0.9997	0.0023***	1.0023***
oil_2	-0.0024***	0.9976***	0.0017***	1.0017***
oil_3	-0.0033***	0.9967***	0.0022***	1.0022***
oil_4	-0.0024***	0.9976***	0.0005	1.0005
oil_5	-0.002***	0.998***	0.0011**	1.0011**
oil_6	-0.0003	0.9997	0.0013***	1.0013***
oil_7	-0.0017***	0.9983***	0.0013***	1.0013***
oil_8	-0.0018***	0.9982***	0.0001	1.0001
oil_9	-0.0037***	0.9963***	-0.0013***	0.9987***
oil_10	-0.0022***	0.9978***	-0.0003	0.9997
oil_11	-0.0034***	0.9966***	-0.0015***	0.9985***
oil_12	-0.0036***	0.9964***	-0.0009*	0.9991*
inflation_1	-0.9069	0.4038	-5.1304***	0.0059***
inflation_2	-1.5838	0.2052	-2.8177*	0.0597*
inflation_3	10.7737**	47747.9649*		
	*	**	-0.0271	0.9733
	13.8815**			
inflation_4	*	1068200***	-0.8412	0.4312
inflation_5	12.052***	171450***	4.691***	108.9664***
inflation_6	14.574***	2135100***	-1.8904	0.151
	17.8092**			
inflation_7	*	54253000***	-3.283**	0.0375**
	13.3643**			
inflation_8	*	636840***	1.3912	4.0198
	12.4029**			
inflation_9	*	243510***	-0.9288	0.395
	10.7573**	46973.7793*		
inflation_10	*	**	1.5726	4.8193
	10.8133**	49676.8026*		
inflation_11	*	**	0.7798	2.181
		2238.0804**		
inflation_12	7.7134***	*	-1.0508	0.3497
R	1.0227***	2.7808***	-0.3048***	0.7373***
R_1	0.0089***	1.0089***	-0.0016***	0.9984***
R_2	0.0135***	1.0136***	-0.0026***	0.9974***
R_3	0.0007	1.0007	0.0002	1.0002
R_4	0.0028**	1.0028**	-0.0012**	0.9988**
R_5	-0.0058***	0.9942***	-0.0008*	0.9992*
R_6	0.0073***	1.0073***	-0.0014***	0.9986***
R_7	0.0056***	1.0056***	0.0006	1.0006

R_8	0	1	0.0024***	1.0024***
R_9	0.007***	1.007***	0.0015***	1.0015***
R_10	0.0059***	1.0059***	0.002***	1.002***
R_11	0.0153***	1.0154***	0.0023***	1.0023***
R_12	0.0046***	1.0046***	0.0009**	1.0009**
Food/Non_alcoholic_inflation_1	1.2552*	3.5085*	3.5546***	34.9746***
Food/Non_alcoholic_inflation_2	2.9111***	18.3761***	3.0608***	21.3437***
Food/Non_alcoholic_inflation_3	-0.3439	0.709	1.2956*	3.6532*
Food/Non_alcoholic_inflation_4	-0.5337	0.5864	3.5504***	34.8255***
Food/Non_alcoholic_inflation_5	3.6325***	37.8081***	0.8874	2.4289
Food/Non_alcoholic_inflation_6	2.3224***	10.2004***	-2.2935***	0.1009***
Food/Non_alcoholic_inflation_7	1.4718**	4.3573**	-0.926	0.3961
Food/Non_alcoholic_inflation_8	0.4989	1.6469	0.4243	1.5285
Food/Non_alcoholic_inflation_9	-1.5539**	0.2114**	-0.888	0.4115
Food/Non_alcoholic_inflation_10	-1.5047**	0.2221**	-1.0369	0.3546
Food/Non_alcoholic_inflation_11	-0.683	0.5051	-0.1774	0.8375
Food/Non_alcoholic_inflation_12	-1.6794**	0.1865**	-0.0057	0.9943
Alcoholic_inflation_1	3.8036***	44.8622***	-3.3661***	0.0345***
Alcoholic_inflation_2	-0.6025	0.5475	-3.577***	0.028***
Alcoholic_inflation_3	0.2449	1.2775	-3.2348***	0.0394***
Alcoholic_inflation_4	3.4823***	32.5333***	-2.9546***	0.0521***
Alcoholic_inflation_5	4.6725***	106.9641***	-2.4385***	0.0873***
Alcoholic_inflation_6	4.0083***	55.0547***	-2.6803***	0.0685***
Alcoholic_inflation_7	3.3608***	28.8133***	-1.0153**	0.3623**
Alcoholic_inflation_8	2.5414***	12.6977***	-0.17	0.8437
Alcoholic_inflation_9	1.2464	3.478	0.1121	1.1186
Alcoholic_inflation_10	5.2486***	190.2953***	1.3948***	4.0342***
Alcoholic_inflation_11	2.3107***	10.0811***	0.8643**	2.3733**
Alcoholic_inflation_12	-0.3769	0.686	-0.7745**	0.4609**
Energy_inflation_1	-0.1627	0.8498	0.3882*	1.4743*
Energy_inflation_2	-0.6543**	0.5198**	-0.4539**	0.6351**
Energy_inflation_3	-2.0212***	0.1325***	0.283	1.3271
Energy_inflation_4	0.4171	1.5176	0.0661	1.0683
Energy_inflation_5	0.1728	1.1887	0.3106	1.3642
Energy_inflation_6	0.3246	1.3835	0.1163	1.1234
Energy_inflation_7	0.7625***	2.1436***	0.0262	1.0266
Energy_inflation_8	1.3859***	3.9986***	-0.3001	0.7407
Energy_inflation_9	0.2867	1.332	-0.0398	0.961
Energy_inflation_10	2.806***	16.5432***	-0.4653**	0.628**
Energy_inflation_11	5.4002***	221.4609***	0.2819	1.3256
Energy_inflation_12	3.3343***	28.058***	0.5131**	1.6705**
Non_energy_goods_inflation_1	2.4787***	11.9261***	-0.4846	0.616
Non_energy_goods_inflation_2	0.8574	2.3571	-0.8187*	0.441*

Non_energy_goods_inflation_3	1.1238**	3.0765**	-1.2742***	0.2797***
Non_energy_goods_inflation_4	1.3013**	3.6742**	-0.8424*	0.4307*
Non_energy_goods_inflation_5	-0.2451	0.7827	-0.9673*	0.3801*
Non_energy_goods_inflation_6	0.4912	1.6343	-2.4322***	0.0878***
Non_energy_goods_inflation_7	0.9192*	2.5072*	-2.4983***	0.0822***
Non_energy_goods_inflation_8	0.3907	1.478	-0.8336*	0.4345*
Non_energy_goods_inflation_9	1.5111***	4.5315***	-0.3839	0.6812
Non_energy_goods_inflation_10	0.9454*	2.5738*	-1.3631***	0.2559***
Non_energy_goods_inflation_11	0.5788	1.784	-1.8307***	0.1603***
Non_energy_goods_inflation_12	0.782	2.1859	-1.7537***	0.1731***
	-			
	10.8447**			
Housing_services_inflation_1	*	0***	6.6436***	767.8232***
	-			
	22.2768**			
Housing_services_inflation_2	*	0***	-5.2705***	0.0051***
Housing_services_inflation_3	-6.2448***	0.0019***	0.7881	2.1991
Housing_services_inflation_4	-3.5091**	0.0299**	-7.8735***	0.0004***
	-			
	12.2505**			
Housing_services_inflation_5	*	0***	6.7914***	890.1891***
	-			
	14.1774**			
Housing_services_inflation_6	*	0***	-3.6604*	0.0257*
	-			
	12.0174**			
Housing_services_inflation_7	*	0***	-7.7809***	0.0004***
Housing_services_inflation_8	-3.6044**	0.0272**	-4.754**	0.0086**
				12717.5267*
Housing_services_inflation_9	0.7035	2.0208	9.4507***	**
Housing_services_inflation_10	-2.6988*	0.0673*	5.7634***	318.4162***
				426450000**
Housing_services_inflation_11	-9.6593***	0.0001***	19.871***	*
				10740.7505*
Housing_services_inflation_12	-7.0398***	0.0009***	9.2818***	**
Transport/travel_services_inflation_1	-3.5169***	0.0297***	-0.0985	0.9062
Transport/travel_services_inflation_2	-2.0147***	0.1334***	0.3293	1.39
Transport/travel_services_inflation_3	0.4805	1.6169	2***	7.3893***
Transport/travel_services_inflation_4	1.1427*	3.1351*	1.6811***	5.3715***
Transport/travel_services_inflation_5	-0.9536	0.3854	2.8349***	17.0293***
Transport/travel_services_inflation_6	0.8893	2.4334	2.4185***	11.2291***
Transport/travel_services_inflation_7	2.1876***	8.9141***	0.6081	1.8369
Transport/travel_services_inflation_8	0.1828	1.2006	2.4049***	11.0774***
Transport/travel_services_inflation_9	-0.5118	0.5994	1.3935***	4.0288***
Transport/travel_services_inflation_10	-0.0186	0.9816	1.4347***	4.1983***

Transport/travel_services_inflation_11	-1.1235*	0.3251*	1.7522***	5.7674***
Transport/travel_services_inflation_12	2.528***	12.5279***	1.0737***	2.9261***
Communication_inflation_1	-4.6672***	0.0094***	1.7236***	5.6047***
Communication_inflation_2	-2.9484***	0.0524***	1.6842***	5.3883***
Communication_inflation_3	-3.0219***	0.0487***	0.1966	1.2172
Communication_inflation_4	0.4044	1.4984	3.758***	42.8626***
Communication_inflation_5	0.2188	1.2446	4.7107***	111.1272***
Communication_inflation_6	-2.8949***	0.0553***	5.321***	204.5966***
Communication_inflation_7	2.508***	12.2802***	5.0512***	156.2084***
Communication_inflation_8	-3.0861***	0.0457***	-1.1935**	0.3031**
Communication_inflation_9	-1.541**	0.2142**	1.0077**	2.7392**
Communication_inflation_10	1.902***	6.6996***	0.8583*	2.3592*
Communication_inflation_11	3.5676***	35.4329***	1.5412***	4.6701***
Communication_inflation_12	4.6157***	101.0614***	0.0438	1.0448
Recreational/personal_services_inflation_1	-5.5509**	0.0039**	*	38488000***
Recreational/personal_services_inflation_2	10.3942**	32670.6958*	20.6349**	915390000**
Recreational/personal_services_inflation_3	9.3332***	11307.6408*	18.817***	148630000**
Recreational/personal_services_inflation_4	13.1205**	499050***	17.3312**	33638000***
Recreational/personal_services_inflation_5	17.4775**	38937000***	20.2864**	646030000**
Recreational/personal_services_inflation_6	8.4331***	4596.7675**	13.5117**	737990***
Recreational/personal_services_inflation_7	8.5142***	4985.1615**	6.8451***	939.2962***
Recreational/personal_services_inflation_8	12.6984**	327220***	6.4701***	645.5631***
Recreational/personal_services_inflation_9	5.0145**	150.5782**	8.8669***	7093.0882**
Recreational/personal_services_inflation_10	9.3683***	11711.1357*	14.1572**	1407300***
Recreational/personal_services_inflation_11	-1.8451	0.158	14.2202**	1498800***
Recreational/personal_services_inflation_12	-	0***	*	78054.7927*
Miscellaneous_services_inflation_1	-5.4239***	0.0044***	2.3611*	10.6026*
Miscellaneous_services_inflation_2	-1.5396	0.2145	1.6552	5.2342
Miscellaneous_services_inflation_3	-2.5419*	0.0787*	9.5198***	13626.3998*
Miscellaneous_services_inflation_4	-3.0667**	0.0466**	-1.3194	0.2673
Miscellaneous_services_inflation_5	-0.4562	0.6337	-7.6594***	0.0005***
Miscellaneous_services_inflation_6	-5.1186***	0.006***	-4.9129***	0.0074***

Miscellaneous_services_inflation_7	-4.8614***	0.0077***	-6.8119***	0.0011***
Miscellaneous_services_inflation_8	-2.5362**	0.0792**	-8.6067***	0.0002***
			-	
			13.5902**	
Miscellaneous_services_inflation_9	0.601	1.824	*	0***
Miscellaneous_services_inflation_10	-1.7731	0.1698	-3.927***	0.0197***
Miscellaneous_services_inflation_11	-13.994***	0***	-2.4538*	0.086*
Miscellaneous_services_inflation_12	-0.1856	0.8306	-5.9415***	0.0026***
Food/Non_alcoholic_expenditure	-0.805**	0.4471**	-0.0435	0.9574
Alcoholic_expenditure	0.3132	1.3678	-0.0104	0.9896
Energy_expenditure	-0.0656	0.9365	0.0154	1.0156
Non_energy_goods_expenditure	1.2891***	3.6294***	-0.0249	0.9754
Housing_services_expenditure	2.9813***	19.7143***	0.0906	1.0948
Transport/travel_services_expenditure	0.1068	1.1127	0.0468	1.0479
Communication_expenditure	-1.9927***	0.1363***	-0.0084	0.9916
Recreational/personal_services_expenditure	-0.2723	0.7616	-0.0299	0.9705
Miscellaneous_services_expenditure	1.6752***	5.3399***	-0.1725***	0.8415***

Recreational/Personal Services		
without sales	full sample	
	coef	H.R.
SE	0.0268***	1.0271***
SW	-0.0332***	0.9674***
East_Anglia	-0.0369***	0.9637***
East_Midlands	-0.0305***	0.9699***
West_Midlands	-0.0061	0.994
Yorks_Humber	-0.0266***	0.9737***
NW	0.0491***	1.0503***
North	-0.0728***	0.9298***
Wales	-0.0691***	0.9333***
Scotland	-0.0202***	0.98***
NI	-0.048***	0.9531***
FEB	-0.017	0.9832
MAR	0.0531***	1.0545***
APR	-0.0076	0.9924
MAY	0.0085	1.0085
JUN	-0.0008	0.9992
JUL	-0.0157	0.9844
AUG	-0.035**	0.9656**
SEP	-0.049***	0.9521***
OCT	0.045***	1.046***

NOV	0.0948***	1.0994***
DEC	0.0317**	1.0322**
wage	1.8122***	6.1241***
independent	0.0823***	1.0858***
tax	-0.7488***	0.4729***
NX	-0.0654***	0.9367***
nine_ending	-0.0522***	0.9491***
zero_ending	-0.045***	0.956***
market_share	0.0098***	1.0099***
increase_increase	-0.3794***	0.6843***
increase_decrease	-0.1361***	0.8727***
decrease_decrease	0.0768***	1.0798***
oil	0.019	1.0192
oil_1	0.0015***	1.0015***
oil_2	0.0025***	1.0025***
oil_3	0.0003	1.0003
oil_4	0.0015***	1.0015***
oil_5	0.001***	1.001***
oil_6	0.0003	1.0003
oil_7	0.0001	1.0001
oil_8	-0.0001	0.9999
oil_9	-0.0019***	0.9981***
oil_10	-0.0002	0.9998
oil_11	-0.0035***	0.9965***
oil_12	-0.0016***	0.9984***
inflation_1	-4.1915***	0.0151***
inflation_2	-1.2081	0.2988
inflation_3	8.264***	3881.7067***
inflation_4	5.215***	184.0116***
inflation_5	2.0213*	7.5479*
inflation_6	1.2427	3.4649
inflation_7	-2.4401**	0.0871**
inflation_8	2.7297**	15.3288**
inflation_9	-2.2502**	0.1054**
inflation_10	-0.6873	0.5029
inflation_11	-3.9319***	0.0196***
inflation_12	2.3469**	10.4526**
R	-0.0589*	0.9428*
R_1	0.0004	1.0004
R_2	0.0003	1.0003
R_3	-0.0013***	0.9987***
R_4	-0.0019***	0.9981***
R_5	-0.0022***	0.9978***

R_6	-0.0009**	0.9991**
R_7	0.0015***	1.0015***
R_8	-0.0001	0.9999
R_9	0.0009**	1.0009**
R_10	0.0012***	1.0012***
R_11	0.002***	1.002***
R_12	-0.0002	0.9998
Food/Non_alcoholic_inflation_1	1.6856***	5.3957***
Food/Non_alcoholic_inflation_2	3.4008***	29.9892***
Food/Non_alcoholic_inflation_3	-1.6476***	0.1925***
Food/Non_alcoholic_inflation_4	2.4588***	11.6904***
Food/Non_alcoholic_inflation_5	-0.6008	0.5484
Food/Non_alcoholic_inflation_6	-0.0843	0.9191
Food/Non_alcoholic_inflation_7	-1.5773***	0.2065***
Food/Non_alcoholic_inflation_8	-0.8308**	0.4357**
Food/Non_alcoholic_inflation_9	-2.259***	0.1045***
Food/Non_alcoholic_inflation_10	-1.0035***	0.3666***
Food/Non_alcoholic_inflation_11	0.4455	1.5613
Food/Non_alcoholic_inflation_12	1.3292***	3.7779***
Alcoholic_inflation_1	-1.7398***	0.1755***
Alcoholic_inflation_2	-2.186***	0.1124***
Alcoholic_inflation_3	-1.6792***	0.1865***
Alcoholic_inflation_4	-1.4212***	0.2414***
Alcoholic_inflation_5	-1.9732***	0.139***
Alcoholic_inflation_6	-1.4577***	0.2328***
Alcoholic_inflation_7	-0.7694**	0.4633**
Alcoholic_inflation_8	2.9375***	18.8686***
Alcoholic_inflation_9	0.4148	1.5141
Alcoholic_inflation_10	1.4083***	4.0888***
Alcoholic_inflation_11	-0.3234	0.7237
Alcoholic_inflation_12	0.012	1.012
Energy_inflation_1	0.6839***	1.9817***
Energy_inflation_2	-0.8985***	0.4072***
Energy_inflation_3	-0.1984	0.8201
Energy_inflation_4	-0.0588	0.9429
Energy_inflation_5	0.0964	1.1012
Energy_inflation_6	0.08	1.0833
Energy_inflation_7	0.776***	2.1727***
Energy_inflation_8	-0.1963	0.8218
Energy_inflation_9	0.2355	1.2655
Energy_inflation_10	0.6113***	1.8429***
Energy_inflation_11	1.1319***	3.1014***
Energy_inflation_12	0.2121	1.2362

Non_energy_goods_inflation_1	0.7304**	2.0758**
Non_energy_goods_inflation_2	-0.0025	0.9975
Non_energy_goods_inflation_3	0.1243	1.1323
Non_energy_goods_inflation_4	1.0413***	2.8328***
Non_energy_goods_inflation_5	0.4035	1.497
Non_energy_goods_inflation_6	-0.0166	0.9835
Non_energy_goods_inflation_7	-0.3328	0.7169
Non_energy_goods_inflation_8	-0.1182	0.8885
Non_energy_goods_inflation_9	0.271	1.3112
Non_energy_goods_inflation_10	0.1565	1.1695
Non_energy_goods_inflation_11	0.6758**	1.9657**
Non_energy_goods_inflation_12	0.518	1.6787
Housing_services_inflation_1	-1.6226**	0.1974**
Housing_services_inflation_2	-5.6791***	0.0034***
Housing_services_inflation_3	-2.7003***	0.0672***
Housing_services_inflation_4	-1.1673	0.3112
Housing_services_inflation_5	2.4486***	11.5718***
Housing_services_inflation_6	-0.2434	0.7839
Housing_services_inflation_7	-3.4581***	0.0315***
Housing_services_inflation_8	-3.181***	0.0415***
Housing_services_inflation_9	2.0075**	7.4446**
Housing_services_inflation_10	3.4255***	30.7379***
Housing_services_inflation_11	6.9234***	1015.8057***
Housing_services_inflation_12	-0.088	0.9158
Transport/travel_services_inflation_1	-0.4297	0.6507
Transport/travel_services_inflation_2	0.3457	1.4129
Transport/travel_services_inflation_3	2.1858***	8.8976***
Transport/travel_services_inflation_4	0.5263**	1.6927**
Transport/travel_services_inflation_5	2.3159***	10.1343***
Transport/travel_services_inflation_6	1.5954***	4.9305***
Transport/travel_services_inflation_7	1.0656***	2.9025***
Transport/travel_services_inflation_8	1.9819***	7.2562***
Transport/travel_services_inflation_9	1.5657***	4.7862***
Transport/travel_services_inflation_10	1.0826***	2.9523***
Transport/travel_services_inflation_11	-0.4322	0.6491
Transport/travel_services_inflation_12	1.3529***	3.8686***
Communication_inflation_1	0.6857**	1.9851**
Communication_inflation_2	-0.2831	0.7535
Communication_inflation_3	0.3678	1.4446
Communication_inflation_4	1.5464***	4.6944***
Communication_inflation_5	2.4115***	11.1512***
Communication_inflation_6	2.4944***	12.115***
Communication_inflation_7	1.3662***	3.9206***

Communication_inflation_8	-1.7714***	0.1701***
Communication_inflation_9	0.4912*	1.6342*
Communication_inflation_10	0.369	1.4463
Communication_inflation_11	0.7638**	2.1464**
Communication_inflation_12	-1.2657***	0.282***
Recreational/personal_services_inflation_1	7.8275***	2508.6138***
Recreational/personal_services_inflation_2	11.2936***	80309.7621***
Recreational/personal_services_inflation_3	11.6846***	118730***
Recreational/personal_services_inflation_4	5.8543***	348.7287***
Recreational/personal_services_inflation_5	9.452***	12734.0661***
Recreational/personal_services_inflation_6	-0.5041	0.604
Recreational/personal_services_inflation_7	-1.5192	0.2189
Recreational/personal_services_inflation_8	4.8455***	127.1628***
Recreational/personal_services_inflation_9	4.0481***	57.2897***
Recreational/personal_services_inflation_10	3.1321***	22.9212***
Recreational/personal_services_inflation_11	6.5456***	696.1787***
Recreational/personal_services_inflation_12	2.6765**	14.5342**
Miscellaneous_services_inflation_1	-2.1239***	0.1196***
Miscellaneous_services_inflation_2	2.4741***	11.8704***
Miscellaneous_services_inflation_3	-3.3446***	0.0353***
Miscellaneous_services_inflation_4	0.2744	1.3157
Miscellaneous_services_inflation_5	-0.5858	0.5566
Miscellaneous_services_inflation_6	-5.6374***	0.0036***
Miscellaneous_services_inflation_7	-6.5455***	0.0014***
Miscellaneous_services_inflation_8	-6.2494***	0.0019***
Miscellaneous_services_inflation_9	-9.1849***	0.0001***
Miscellaneous_services_inflation_10	-7.6346***	0.0005***
Miscellaneous_services_inflation_11	-6.6254***	0.0013***
Miscellaneous_services_inflation_12	-7.0539***	0.0009***
Food/Non_alcoholic_expenditure	1.4115***	4.102***
Alcoholic_expenditure	-0.0394	0.9614
Energy_expenditure	0.1434***	1.1542***
Non_energy_goods_expenditure	0.4901*	1.6325*
Housing_services_expenditure	0.7727***	2.1656***
Transport/travel_services_expenditure	3.6312***	37.7585***
Communication_expenditure	-0.5568***	0.5731***
Recreational/personal_services_expenditure	-0.3221	0.7246
Miscellaneous_services_expenditure	-1.2903***	0.2752***

Recreational/Personal Services Pre- and Post-crisis

without sales	pre-crisis	post-crisis
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	coef	H.R.	coef	H.R.
SE	0.0939***	1.0985***	-0.008	0.992
	-			
SW	0.0379***	0.9628***	-0.032***	0.9685***
			-	
East_Anglia	-0.0143	0.9858	0.0229***	0.9774***
East_Midlands	-0.0093	0.9907	-0.063***	0.9389***
West_Midlands	-0.0009	0.9991	-0.0101	0.9899
	-			
Yorks_Humber	0.0507***	0.9505***	-0.011	0.9891
NW	0.0315***	1.032***	0.0469***	1.048***
			-	
North	-0.0297**	0.9707**	0.1011***	0.9039***
	-		-	
Wales	0.1056***	0.8998***	0.0565***	0.945***
	-			
Scotland	0.0399***	0.9609***	0.0012	1.0012
	-		-	
NI	0.0789***	0.9241***	0.0391***	0.9617***
	-			
FEB	0.0852***	0.9183***	0.0267	1.0271
MAR	0.0901***	1.0943***	-0.016	0.9841
APR	-0.0175	0.9826	-0.0293	0.9712
MAY	0.032	1.0325	-0.0248	0.9755
JUN	-0.0042	0.9958	-0.0173	0.9828
			-	
JUL	-0.0142	0.9859	0.0842***	0.9192***
AUG	0.0318	1.0323	-0.0206	0.9796
SEP	0.0025	1.0025	-0.0247	0.9756
OCT	0.0361	1.0367	0.0461**	1.0471**
NOV	0.0508*	1.0521*	0.0826***	1.0862***
DEC	-0.0254	0.975	0.0533**	1.0547**
	-			
wage	2.9303***	0.0534***	2.4391***	11.4622***
	-			
independent	0.0632***	0.9388***	0.1481***	1.1596***
	-		-	
Tax	0.8595***	0.4234***	0.4354***	0.647***
			-	
NX	0.0029	1.0029	0.2835***	0.7532***
			-	
nine_ending	-0.0189**	0.9813**	0.0502***	0.951***
			-	
zero_ending	0.0112**	1.0113**	0.0525***	0.9489***
market_share	0.016***	1.0161***	0.0036***	1.0036***
	-		-	
increase_increase	0.3853***	0.6802***	0.3941***	0.6743***

	-			
increase_decrease	0.1163***	0.8902***	-0.154***	0.8572***
decrease_decrease	0.0767***	1.0797***	0.1035***	1.1091***
Oil	-0.0925*	0.9117*	-0.0151	0.985
oil_1	-0.0014**	0.9986**	0.0023***	1.0024***
	-			
oil_2	0.0025***	0.9975***	0.0022***	1.0022***
oil_3	-0.003***	0.997***	0.0012**	1.0012**
	-			
oil_4	0.0016***	0.9984***	0.0014**	1.0014**
	-			
oil_5	0.0017***	0.9983***	0.0014***	1.0014***
oil_6	-0.0005	0.9995	0.0005	1.0005
oil_7	0.0003	1.0003	0.0029***	1.0029***
	-			
oil_8	0.0019***	0.9981***	0.001*	1.001*
	-			
oil_9	0.0025***	0.9975***	0.0015***	0.9985***
oil_10	-0.0015**	0.9985**	0.0003	1.0003
	-			
oil_11	0.0041***	0.9959***	0.0014***	0.9986***
	-			
oil_12	0.0027***	0.9973***	-0.0012**	0.9988**
	-			
inflation_1	0.2091	1.2326	4.6075***	0.01***
inflation_2	-1.6757	0.1872	-2.2589	0.1045
inflation_3	7.1111***	1225.4673***	3.4498**	31.4933**
	10.4305*			
inflation_4	**	33878.4179***	-0.103	0.9021
inflation_5	6.3934***	597.8742***	3.4487**	31.4609**
	10.2177*	27384.203399999		
inflation_6	**	9***	-0.745	0.4747
	12.6232*		-	
inflation_7	**	303520***	5.0224***	0.0066***
inflation_8	7.9381***	2802.1629***	0.9058	2.4739
inflation_9	7.0896***	1199.4503***	-2.8005*	0.0608*
inflation_10	5.2324**	187.2454**	-0.9046	0.4047
inflation_11	2.3252	10.2289	-2.9749*	0.0511*
inflation_12	3.5695*	35.4979*	-0.6056	0.5458
	-			
R	0.7938***	2.2117***	0.2635***	0.7684***
R_1	0.0078***	1.0078***	-0.0011**	0.9989**
	-			
R_2	0.0123***	1.0123***	0.0021***	0.9979***
R_3	-0.0032**	0.9968**	-0.0006	0.9994
R_4	0.001	1.001	-	0.9972***

			0.0028***	
	-			
R_5	0.0089***	0.9911***	-0.0002	0.9998
			-	
R_6	0.0085***	1.0085***	0.0014***	0.9986***
R_7	0.0105***	1.0105***	0.0011**	1.0011**
R_8	0.0056***	1.0056***	0.0002	1.0002
R_9	0.0098***	1.0099***	0.001*	1.001*
R_10	0.0133***	1.0134***	0.0013**	1.0013**
R_11	0.0201***	1.0203***	0.0017***	1.0017***
R_12	0.007***	1.0071***	0.0001	1.0001
Food/Non_alcoholic_inflation_1	1.2691	3.5577	3.1334***	22.9524***
Food/Non_alcoholic_inflation_2	5.4408***	230.6367***	2.0669***	7.9005***
Food/Non_alcoholic_inflation_3	-0.2061	0.8138	-0.2639	0.7681
Food/Non_alcoholic_inflation_4	-1.5364**	0.2152**	2.7894***	16.2707***
Food/Non_alcoholic_inflation_5	4.634***	102.9253***	-1.7708**	0.1702**
			-	
Food/Non_alcoholic_inflation_6	2.677***	14.5417***	4.0609***	0.0172***
Food/Non_alcoholic_inflation_7	1.9557***	7.0689***	-1.556**	0.211**
Food/Non_alcoholic_inflation_8	-1.0944	0.3347	-1.5574**	0.2107**
	-		-	
Food/Non_alcoholic_inflation_9	4.5661***	0.0104***	2.1293***	0.1189***
	-		-	
Food/Non_alcoholic_inflation_10	3.4465***	0.0319***	-0.467	0.6269
Food/Non_alcoholic_inflation_11	-1.2426*	0.2886*	-1.1213*	0.3259*
Food/Non_alcoholic_inflation_12	-0.7339	0.48	0.2155	1.2405
			-	
Alcoholic_inflation_1	6.2906***	539.4621***	4.1862***	0.0152***
			-	
Alcoholic_inflation_2	2.9046***	18.2588***	2.4316***	0.0879***
			-	
Alcoholic_inflation_3	0.7076	2.029	2.1707***	0.1141***
			-	
Alcoholic_inflation_4	2.6826***	14.6229***	2.0541***	0.1282***
			-	
Alcoholic_inflation_5	2.514***	12.3543***	1.2753***	0.2793***
			-	
Alcoholic_inflation_6	6.1709***	478.61***	1.9839***	0.1375***
Alcoholic_inflation_7	6.5371***	690.275***	-0.7794*	0.4587*
Alcoholic_inflation_8	6.2682***	527.504***	0.5903	1.8045
Alcoholic_inflation_9	2.6818***	14.6112***	0.7	2.0138
Alcoholic_inflation_10	4.2311***	68.7913***	1.0436**	2.8393**
Alcoholic_inflation_11	4.0228***	55.8559***	-0.4073	0.6654
Alcoholic_inflation_12	0.2437	1.2759	-0.5073	0.6021
Energy_inflation_1	1.5058***	4.5079***	0.3751*	1.4551*

			-	
Energy_inflation_2	-0.0215	0.9788	0.8402***	0.4316***
Energy_inflation_3	-0.4929*	0.6109*	0.1754	1.1917
Energy_inflation_4	0.0414	1.0423	0.4914**	1.6345**
Energy_inflation_5	0.8563***	2.3544***	0.5391**	1.7145**
Energy_inflation_6	0.0154	1.0155	0.086	1.0898
Energy_inflation_7	0.8559***	2.3534***	0.1572	1.1702
			-	
Energy_inflation_8	1.0217***	2.7778***	0.7692***	0.4634***
			-	
Energy_inflation_9	1.0536***	0.3487***	-0.2644	0.7677
			-	
Energy_inflation_10	2.2167***	9.1767***	0.6685***	0.5125***
Energy_inflation_11	4.6236***	101.8566***	-0.2553	0.7747
Energy_inflation_12	2.4447***	11.5266***	0.4099*	1.5067*
Non_energy_goods_inflation_1	1.5723***	4.8179***	0.6427	1.9015
Non_energy_goods_inflation_2	0.4919	1.6354	1.1828**	3.2635**
Non_energy_goods_inflation_3	1.0078*	2.7396*	0.7026	2.0191
Non_energy_goods_inflation_4	1.325**	3.7622**	0.8646	2.3742
Non_energy_goods_inflation_5	-1.2414**	0.289**	-0.2728	0.7612
			-	
Non_energy_goods_inflation_6	0.4476	1.5645	1.4564***	0.2331***
			-	
Non_energy_goods_inflation_7	0.5743	1.7758	2.1655***	0.1147***
Non_energy_goods_inflation_8	0.2756	1.3173	-0.528	0.5898
Non_energy_goods_inflation_9	0.8872	2.4284	0.7515	2.1202
Non_energy_goods_inflation_10	0.9666*	2.6291*	-0.7901	0.4538
Non_energy_goods_inflation_11	0.1079	1.1139	-1.2717**	0.2804**
Non_energy_goods_inflation_12	0.7475	2.1118	-1.3176**	0.2678**
			-	
Housing_services_inflation_1	10.049***	0***	8.0876***	3253.7388**
			-	*
	20.6753*		11.2114*	
Housing_services_inflation_2	**	0***	**	0***
			-	
Housing_services_inflation_3	6.0196***	0.0024***	5.4858***	0.0041***
			-	
Housing_services_inflation_4	-1.3436	0.2609	6.0827***	0.0023***
			-	
Housing_services_inflation_5	4.5487***	0.0106***	8.183***	3579.5522**
Housing_services_inflation_6	-5.836***	0.0029***	0.7181	*
			-	
Housing_services_inflation_7	9.5203***	0.0001***	-1.0239	0.3592
Housing_services_inflation_8	-2.4824	0.0835	5.1596***	174.0984***
			14.7046*	
Housing_services_inflation_9	0.0007	1.0007	**	2433000***

				5069.9927**
Housing_services_inflation_10	-0.8857	0.4124	8.5311***	*
	-		21.0211*	134700000
Housing_services_inflation_11	5.8452***	0.0029***	**	0***
	-			15810.8633
Housing_services_inflation_12	5.1069***	0.0061***	9.6685***	***
	-			
Transport/travel_services_inflation_1	3.9532***	0.0192***	-0.4458	0.6403
	-			
Transport/travel_services_inflation_2	2.8574***	0.0574***	-0.3921	0.6756
Transport/travel_services_inflation_3	1.8159***	6.1464***	1.5346***	4.6392***
Transport/travel_services_inflation_4	2.7521***	15.6756***	0.9931***	2.6995***
Transport/travel_services_inflation_5	0.634	1.8851	1.5674***	4.7944***
Transport/travel_services_inflation_6	-0.9472	0.3878	1.2773***	3.5869***
Transport/travel_services_inflation_7	1.9577***	7.0828***	0.4429	1.5572
Transport/travel_services_inflation_8	0.8402	2.3168	2.3409***	10.3909***
Transport/travel_services_inflation_9	0.7865	2.1956	1.3801***	3.9753***
Transport/travel_services_inflation_10	0.9444	2.5712	0.5051	1.6571
Transport/travel_services_inflation_11	-0.7698	0.4631	0.7988*	2.2229*
Transport/travel_services_inflation_12	3.2741***	26.4183***	1.0062**	2.7351**
	-			
Communication_inflation_1	2.9257***	0.0536***	-0.1748	0.8397
Communication_inflation_2	-0.3555	0.7008	0.2933	1.3408
Communication_inflation_3	-3.119***	0.0442***	0.8712	2.3897
Communication_inflation_4	-0.7202	0.4867	2.7378***	15.4525***
Communication_inflation_5	0.7014	2.0165	2.8275***	16.9033***
	-			
Communication_inflation_6	2.8063***	0.0604***	2.6377***	13.9812***
Communication_inflation_7	2.5761***	13.1451***	2.5726***	13.1002***
	-			
Communication_inflation_8	3.0204***	0.0488***	2.8229***	0.0594***
Communication_inflation_9	-1.907***	0.1485***	-0.8949*	0.4087*
	-			
Communication_inflation_10	-0.9737	0.3777	1.5915***	0.2036***
Communication_inflation_11	-0.1649	0.848	0.0682	1.0705
Communication_inflation_12	-0.4533	0.6355	-0.1382	0.871
Recreational/personal_services_inflation_1	-		18.6187*	121900000*
	9.2874***	0.0001***	**	**
Recreational/personal_services_inflation_2	4.2799*	72.2359*	13.2198*	551170***
			**	
Recreational/personal_services_inflation_3	-5.6656**	0.0035**	16.025***	9111000***
Recreational/personal_services_inflation_4	-4.2841*	0.0138*	11.2026*	73317.339**
			**	*

Recreational/personal_services_inflation_5	5.2182**	184.6018**	14.0583* **	1274800***
Recreational/personal_services_inflation_6	-2.3937	0.0913	6.7508***	854.7298***
Recreational/personal_services_inflation_7	-5.7327**	0.0032**	1.5799	4.8543
Recreational/personal_services_inflation_8	0.9867	2.6823	1.5614	4.7653
Recreational/personal_services_inflation_9	0.6244	1.8671	2.3869	10.8802
Recreational/personal_services_inflation_10	-0.1823	0.8333	5.4326***	228.7332***
Recreational/personal_services_inflation_11	-1.5295	0.2166	1.2622	3.5333
-	-	-	-	-
Recreational/personal_services_inflation_12	14.9318* **	0***	1.4107	4.0987
-	-	-	-	-
Miscellaneous_services_inflation_1	4.2889***	0.0137***	0.8162	2.2619
Miscellaneous_services_inflation_2	-0.4753	0.6217	-0.8938	0.4091
Miscellaneous_services_inflation_3	-1.3613	0.2563	4.45***	85.6248***
Miscellaneous_services_inflation_4	-2.4513*	0.0862*	1.0502	2.8582
Miscellaneous_services_inflation_5	-1.1378	0.3205	-2.5419*	0.0787*
Miscellaneous_services_inflation_6	-2.9381**	0.053**	-0.1793	0.8359
-	-	-	-	-
Miscellaneous_services_inflation_7	6.7612***	0.0012***	4.5526***	0.0105***
-	-	-	-	-
Miscellaneous_services_inflation_8	4.7881***	0.0083***	5.1278***	0.0059***
Miscellaneous_services_inflation_9	-2.3895*	0.0917*	-9.976***	0***
-	-	-	-	-
Miscellaneous_services_inflation_10	7.2736***	0.0007***	-2.3032	0.0999
-	-	-	-	-
Miscellaneous_services_inflation_11	18.0732* **	0***	2.3039*	10.0128*
-	-	-	-	-
Miscellaneous_services_inflation_12	6.7173***	0.0012***	5.6966***	0.0034***
-	-	-	-	-
Food/Non_alcoholic_expenditure	4.6147***	0.0099***	0.9934***	2.7004***
-	-	-	-	-
Alcoholic_expenditure	4.3517***	0.0129***	-0.207***	0.813***
Energy_expenditure	1.7728***	5.8875***	0.7234***	2.0613***
Non_energy_goods_expenditure	0.0585	1.0603	-0.0069	0.9931
-	-	-	-	-
Housing_services_expenditure	4.3023***	0.0135***	1.6593***	5.2555***
Transport/travel_services_expenditure	9.9518***	20989.765***	4.1832***	65.5769***
-	-	-	-	-
Communication_expenditure	3.1441***	0.0431***	1.7043***	0.1819***

Recreational/personal_services_exp enditure	0.1903	1.2096	-0.5366*	0.5848*
Miscellaneous_services_expenditure	-1.103***	0.3319***	1.3318***	0.264***

Miscellaneous Services		
with sales	full sample	
	coef	H.R.
SE	0.0574***	1.0591***
SW	-0.02**	0.9802**
East_Anglia	-0.0207**	0.9795**
East_Midlands	0.0127	1.0128
West_Midlands	0.0184**	1.0186**
Yorks_Humber	-0.0182**	0.9819**
NW	0.049***	1.0502***
North	-0.051***	0.9503***
Wales	-0.0488***	0.9524***
Scotland	0.0066	1.0066
NI	-0.0151	0.985
FEB	-0.0207	0.9795
MAR	0.0052	1.0052
APR	-0.0222	0.978
MAY	0.0395**	1.0403**
JUN	0.0384*	1.0391*
JUL	0.0226	1.0229
AUG	0.0108	1.0108
SEP	0.0186	1.0188
OCT	-0.015	0.9851
NOV	0.052**	1.0533**
DEC	-0.0833***	0.92***
wage	0.263***	1.3008***
independent	0.2132***	1.2377***
tax	-0.9804***	0.3752***
NX	-0.0239***	0.9764***
nine_ending	-0.0304***	0.97***
zero_ending	-0.0133**	0.9868**
sales	0.5283***	1.6961***
market_share	0.0025***	1.0025***
increase_increase	-0.3153***	0.7296***
increase_decrease	-0.1186***	0.8882***
decrease_decrease	-0.0009	0.9991
oil	0.0251	1.0254

oil_1	0.0012***	1.0012***
oil_2	0.0021***	1.0021***
oil_3	-0.0001	0.9999
oil_4	-0.0003	0.9997
oil_5	-0.0008**	0.9992**
oil_6	-0.0009**	0.9991**
oil_7	-0.0011**	0.9989**
oil_8	-0.0016***	0.9984***
oil_9	-0.0019***	0.9981***
oil_10	-0.0025***	0.9975***
oil_11	-0.003***	0.997***
oil_12	-0.0018***	0.9982***
inflation_1	0.0923	1.0967
inflation_2	1.8252	6.2041
inflation_3	6.4267***	618.1507***
inflation_4	5.8204***	337.0918***
inflation_5	4.5253***	92.3261***
inflation_6	-2.5012	0.082
inflation_7	-0.8977	0.4075
inflation_8	4.5245***	92.249***
inflation_9	0.0637	1.0657
inflation_10	2.347	10.4543
inflation_11	-2.3175	0.0985
inflation_12	-0.705	0.4941
R	-0.2738***	0.7605***
R_1	-0.0018***	0.9982***
R_2	-0.0006	0.9994
R_3	-0.0004	0.9996
R_4	-0.0015***	0.9985***
R_5	-0.0024***	0.9976***
R_6	-0.0012**	0.9988**
R_7	0.0001	1.0001
R_8	0.0019***	1.0019***
R_9	0.001**	1.001**
R_10	0.0024***	1.0024***
R_11	0.0027***	1.0027***
R_12	0.0021***	1.0021***
Food/Non_alcoholic_inflation_1	-0.3306	0.7185
Food/Non_alcoholic_inflation_2	1.6923***	5.4321***
Food/Non_alcoholic_inflation_3	-0.8116	0.4442
Food/Non_alcoholic_inflation_4	2.9281***	18.6912***
Food/Non_alcoholic_inflation_5	-0.2672	0.7655
Food/Non_alcoholic_inflation_6	0.9866*	2.6821*

Food/Non_alcoholic_inflation_7	-0.0706	0.9318
Food/Non_alcoholic_inflation_8	0.3528	1.4231
Food/Non_alcoholic_inflation_9	-2.201***	0.1107***
Food/Non_alcoholic_inflation_10	-1.4679***	0.2304***
Food/Non_alcoholic_inflation_11	0.5344	1.7064
Food/Non_alcoholic_inflation_12	0.2919	1.339
Alcoholic_inflation_1	-0.5369	0.5846
Alcoholic_inflation_2	-3.0638***	0.0467***
Alcoholic_inflation_3	-1.1014***	0.3324***
Alcoholic_inflation_4	-1.1901***	0.3042***
Alcoholic_inflation_5	0.8208**	2.2724**
Alcoholic_inflation_6	0.5647	1.759
Alcoholic_inflation_7	1.1664***	3.2104***
Alcoholic_inflation_8	1.932***	6.9031***
Alcoholic_inflation_9	0.5208	1.6834
Alcoholic_inflation_10	2.1011***	8.1751***
Alcoholic_inflation_11	0.9636**	2.621**
Alcoholic_inflation_12	-0.3261	0.7217
Energy_inflation_1	0.1214	1.1291
Energy_inflation_2	-0.6286***	0.5334***
Energy_inflation_3	0.3991**	1.4905**
Energy_inflation_4	0.7313***	2.0778***
Energy_inflation_5	0.8758***	2.4008***
Energy_inflation_6	1.202***	3.3268***
Energy_inflation_7	1.2229***	3.397***
Energy_inflation_8	-0.3154	0.7295
Energy_inflation_9	0.62***	1.859***
Energy_inflation_10	0.4676**	1.5961**
Energy_inflation_11	0.5273**	1.6943**
Energy_inflation_12	0.5432***	1.7215***
Non_energy_goods_inflation_1	0.5747	1.7765
Non_energy_goods_inflation_2	-0.7056	0.4938
Non_energy_goods_inflation_3	0.1832	1.201
Non_energy_goods_inflation_4	-0.0177	0.9825
Non_energy_goods_inflation_5	0.7726*	2.1655*
Non_energy_goods_inflation_6	0.5411	1.7178
Non_energy_goods_inflation_7	-0.4324	0.649
Non_energy_goods_inflation_8	0.4824	1.6199
Non_energy_goods_inflation_9	-0.0363	0.9644
Non_energy_goods_inflation_10	-0.4157	0.6599
Non_energy_goods_inflation_11	0.0688	1.0712
Non_energy_goods_inflation_12	-0.019	0.9812
Housing_services_inflation_1	-7.8269***	0.0004***

Housing_services_inflation_2	-3.0654***	0.0466***
Housing_services_inflation_3	-3.9574***	0.0191***
Housing_services_inflation_4	-1.4306	0.2392
Housing_services_inflation_5	0.3331	1.3953
Housing_services_inflation_6	-2.1584*	0.1155*
Housing_services_inflation_7	-10.139***	0***
Housing_services_inflation_8	-9.4257***	0.0001***
Housing_services_inflation_9	-2.3592**	0.0945**
Housing_services_inflation_10	2.2516**	9.5027**
Housing_services_inflation_11	2.6061**	13.5464**
Housing_services_inflation_12	-3.023***	0.0487***
Transport/travel_services_inflation_1	-0.473	0.6231
Transport/travel_services_inflation_2	1.5872***	4.8898***
Transport/travel_services_inflation_3	2.5174***	12.3958***
Transport/travel_services_inflation_4	1.2875***	3.6239***
Transport/travel_services_inflation_5	2.0496***	7.7651***
Transport/travel_services_inflation_6	1.7351***	5.6697***
Transport/travel_services_inflation_7	0.7492*	2.1154*
Transport/travel_services_inflation_8	2.7774***	16.0767***
Transport/travel_services_inflation_9	0.6397	1.8959
Transport/travel_services_inflation_10	1.1424***	3.1341***
Transport/travel_services_inflation_11	0.8829**	2.4179**
Transport/travel_services_inflation_12	0.0015	1.0015
Communication_inflation_1	1.1129***	3.0431***
Communication_inflation_2	-0.8781**	0.4156**
Communication_inflation_3	0.0229	1.0231
Communication_inflation_4	1.5551***	4.7357***
Communication_inflation_5	1.1987***	3.3158***
Communication_inflation_6	0.5653	1.76
Communication_inflation_7	0.683*	1.9798*
Communication_inflation_8	-2.015***	0.1333***
Communication_inflation_9	-1.1974***	0.302***
Communication_inflation_10	0.9415**	2.5639**
Communication_inflation_11	0.7547*	2.1269*
Communication_inflation_12	-1.5242***	0.2178***
Recreational/personal_services_inflation_1	8.2823***	3953.1931***
Recreational/personal_services_inflation_2	13.8878***	107500***
Recreational/personal_services_inflation_3	7.9215***	2755.8145***
Recreational/personal_services_inflation_4	6.9693***	1063.5129***
Recreational/personal_services_inflation_5	3.0809*	21.7787*
Recreational/personal_services_inflation_6	-0.0865	0.9171
Recreational/personal_services_inflation_7	0.9742	2.6491
Recreational/personal_services_inflation_8	11.7223***	123290***

Recreational/personal_services_inflation_9	8.9892***	8015.7195***
Recreational/personal_services_inflation_10	14.889***	2925700***
Recreational/personal_services_inflation_11	9.0458***	8482.7573***
Recreational/personal_services_inflation_12	7.0306***	1130.6905***
Miscellaneous_services_inflation_1	0.9664	2.6286
Miscellaneous_services_inflation_2	3.7551***	42.7383***
Miscellaneous_services_inflation_3	2.9145***	18.4402***
Miscellaneous_services_inflation_4	1.5329	4.6316
Miscellaneous_services_inflation_5	-2.9297***	0.0534***
Miscellaneous_services_inflation_6	-6.1225***	0.0022***
Miscellaneous_services_inflation_7	-5.9676***	0.0026***
Miscellaneous_services_inflation_8	-8.082***	0.0003***
Miscellaneous_services_inflation_9	-8.9497***	0.0001***
Miscellaneous_services_inflation_10	-4.9116***	0.0074***
Miscellaneous_services_inflation_11	-8.7621***	0.0002***
Miscellaneous_services_inflation_12	-10.6023***	0***
Food/Non_alcoholic_expenditure	-0.0522	0.9491
Alcoholic_expenditure	0.2148***	1.2397***
Energy_expenditure	0.0137	1.0138
Non_energy_goods_expenditure	-0.0102	0.9899
Housing_services_expenditure	0.3967***	1.4869***
Transport/travel_services_expenditure	-0.1259*	0.8817*
Communication_expenditure	-0.1428*	0.867*
Recreational/personal_services_expenditure	-0.1424*	0.8673*
Miscellaneous_services_expenditure	-0.214***	0.8074***

Miscellaneous Services Pre- and Post-crisis					
	with sales	pre-crisis		post-crisis	
		coef	H.R.	coef	H.R.
	SE	0.1043***	1.1099***	0.0242**	1.0245**
	SW	-0.0268*	0.9736*	-0.0078	0.9923
	East_Anglia	-0.0283*	0.9721*	0.0037	1.0037
	East_Midlands	-0.0261*	0.9743*	0.0371***	1.0378***
	West_Midlands	0.0145	1.0147	0.0209*	1.0211*
	Yorks_Humber	-0.0232	0.9771	-0.0119	0.9882
	NW	0.0379***	1.0386***	0.042***	1.0429***
	North	-0.0737***	0.929***	-0.04***	0.9608***
	Wales	-0.0583***	0.9434***	-0.0445***	0.9564***
	Scotland	-0.0048	0.9952	0.0181	1.0183
	NI	-0.0264	0.974	-0.0158	0.9843
	FEB	-0.027	0.9733	-0.0171	0.983

MAR	0.1148***	1.1216***	-0.0725***	0.9301***
APR	-0.005	0.995	-0.0291	0.9713
MAY	0.0218	1.022	0.045	1.046
JUN	0.0043	1.0044	0.0718**	1.0745**
JUL	-0.0072	0.9928	-0.0012	0.9988
AUG	-0.0194	0.9808	-0.0092	0.9908
SEP	-0.0542	0.9472	0.0403	1.0412
OCT	-0.0257	0.9746	0.0397	1.0405
NOV	0.0199	1.0201	0.0318	1.0323
DEC	-0.0595	0.9422	-0.0587**	0.943**
wage	-0.3889***	0.6778***	0.1318***	1.1409***
independent	-0.0119	0.9882	0.3753***	1.4554***
tax	-2.208***	0.1099***	-0.7951***	0.4515***
NX	0.031***	1.0314***	-0.254***	0.7757***
nine_ending	0.0371***	1.0377***	-0.0413***	0.9596***
zero_ending	0.0949***	1.0995***	-0.0729***	0.9297***
sales	0.4694***	1.599***	0.5423***	1.72***
market_share	0.0101***	1.0102***	0.0009*	1.0009*
increase_increase	-0.3717***	0.6896***	-0.2919***	0.7468***
increase_decrease	-0.1263***	0.8814***	-0.1211***	0.886***
decrease_decrease	0.0598***	1.0617***	-0.0202	0.98
oil	0.0217	1.0219	-0.0433	0.9576
oil_1	-0.0005	0.9995	0.0023***	1.0023***
oil_2	-0.0012	0.9988	-0.0001	0.9999
oil_3	-0.0019**	0.9981**	0.0023***	1.0023***
oil_4	-0.0019**	0.9981**	-0.0003	0.9997
oil_5	-0.0015*	0.9985*	-0.0014**	0.9986**
oil_6	0.0005	1.0005	0.0014**	1.0014**
oil_7	-0.0006	0.9994	0.0001	1.0001
oil_8	-0.0001	0.9999	-0.0019***	0.9981***
oil_9	-0.0017**	0.9983**	0	1
oil_10	-0.0026***	0.9974***	-0.0002	0.9998
oil_11	-0.0023***	0.9977***	-0.001	0.999
oil_12	-0.0024***	0.9976***	0.0005	1.0005
inflation_1	1.257	3.5148	-3.6914*	0.0249*
inflation_2	-0.6641	0.5147	-1.2232	0.2943
		5479.8708**		
inflation_3	8.6088***	*	-1.7587	0.1723
	10.8026**	49146.3529*		
inflation_4	*	**	1.419	4.1329
	11.5807**			
inflation_5	*	107010***	5.4007**	221.5607**
	11.6423**			
inflation_6	*	113810***	-0.8271	0.4373

	14.7139**			
inflation_7	*	2455500***	-2.1969	0.1111
	11.3664**	86370.0553*		
inflation_8	*	**	0.9885	2.6872
	10.9086**	54642.1055*		
inflation_9	*	**	-0.625	0.5353
inflation_10	5.755*	315.7673*	1.8346	6.2626
inflation_11	6.272**	529.5376**	-1.6675	0.1887
inflation_12	5.8207**	337.2136**	-2.7318	0.0651
R	0.8455***	2.3293***	-0.3161***	0.729***
R_1	0.0103***	1.0103***	-0.0016***	0.9984***
R_2	0.0122***	1.0123***	-0.0018***	0.9982***
R_3	0.0021	1.0021	-0.0004	0.9996
R_4	-0.0008	0.9992	-0.001	0.999
R_5	-0.0076***	0.9924***	-0.0006	0.9994
R_6	0.0052***	1.0053***	-0.0024***	0.9976***
R_7	0.0002	1.0002	0.0008	1.0008
R_8	0.0017	1.0017	0.0045***	1.0046***
R_9	0.0053***	1.0054***	0.0018***	1.0018***
R_10	0.0039*	1.0039*	0.004***	1.004***
R_11	0.0105***	1.0105***	0.003***	1.003***
R_12	0.0043**	1.0043**	0.0023***	1.0023***
Food/Non_alcoholic_inflation_1	0.3742	1.4538	1.4738	4.3657
Food/Non_alcoholic_inflation_2	-0.026	0.9743	2.8692***	17.6231***
Food/Non_alcoholic_inflation_3	-0.7203	0.4866	2.5075***	12.2746***
Food/Non_alcoholic_inflation_4	1.0931	2.9834	2.3102**	10.0762**
Food/Non_alcoholic_inflation_5	3.9641***	52.6712***	-1.8133*	0.1631*
Food/Non_alcoholic_inflation_6	2.7171**	15.136**	-3.0029***	0.0496***
Food/Non_alcoholic_inflation_7	1.9156*	6.7908*	-1.1875	0.305
Food/Non_alcoholic_inflation_8	-0.5016	0.6055	0.15	1.1618
Food/Non_alcoholic_inflation_9	-2.1826**	0.1127**	-1.9437**	0.1432**
Food/Non_alcoholic_inflation_10	-1.2297	0.2924	-1.9694**	0.1395**
Food/Non_alcoholic_inflation_11	-1.1445	0.3184	1.678*	5.3547*
Food/Non_alcoholic_inflation_12	-2.125**	0.1194**	0.1847	1.2028
Alcoholic_inflation_1	4.8627***	129.3697***	-2.7072***	0.0667***
Alcoholic_inflation_2	-0.0761	0.9267	-4.2355***	0.0145***
Alcoholic_inflation_3	0.8062	2.2395	-2.7853***	0.0617***
Alcoholic_inflation_4	2.6845**	14.6506**	-1.9773***	0.1384***
Alcoholic_inflation_5	4.6703***	106.725***	-0.3273	0.7209
Alcoholic_inflation_6	5.4847***	240.9851***	-0.0154	0.9847
Alcoholic_inflation_7	2.6706**	14.4492**	0.5766	1.7801
Alcoholic_inflation_8	-0.0342	0.9664	-0.4609	0.6307
Alcoholic_inflation_9	2.1187*	8.3203*	-0.7115	0.4909

Alcoholic_inflation_10	5.2538***	191.2919***	0.9251*	2.522*
Alcoholic_inflation_11	2.0903	8.0877	0.6565	1.9281
Alcoholic_inflation_12	-1.0994	0.3331	-1.3425***	0.2612***
Energy_inflation_1	-0.0425	0.9584	-0.1342	0.8744
Energy_inflation_2	-0.5276	0.59	0.2148	1.2396
Energy_inflation_3	-2.0944***	0.1231***	0.8518***	2.3438***
Energy_inflation_4	0.6174	1.8542	0.5081	1.6621
Energy_inflation_5	0.5947	1.8126	1.1941***	3.3005***
Energy_inflation_6	0.5035	1.6545	1.1411***	3.1302***
Energy_inflation_7	0.7154*	2.0449*	0.5729*	1.7733*
Energy_inflation_8	0.1301	1.1389	0.2754	1.317
Energy_inflation_9	0.4078	1.5035	0.2944	1.3423
Energy_inflation_10	2.6002***	13.4659***	-0.9979***	0.3687***
Energy_inflation_11	3.2795***	26.5629***	0.4645	1.5912
Energy_inflation_12	2.9732***	19.5551***	0.8832***	2.4185***
Non_energy_goods_inflation_1	2.5465***	12.7623***	-0.6621	0.5158
Non_energy_goods_inflation_2	1.1902	3.2877	-0.6676	0.5129
Non_energy_goods_inflation_3	0.6369	1.8905	-0.4566	0.6334
Non_energy_goods_inflation_4	0.2797	1.3227	-0.653	0.5205
Non_energy_goods_inflation_5	-0.2391	0.7873	-0.8523	0.4264
Non_energy_goods_inflation_6	0.3892	1.4759	-2.1662***	0.1146***
Non_energy_goods_inflation_7	0.6242	1.8667	-1.843***	0.1583***
Non_energy_goods_inflation_8	0.4861	1.6259	-0.5377	0.5841
Non_energy_goods_inflation_9	1.5278**	4.6082**	-1.2199*	0.2952*
Non_energy_goods_inflation_10	0.4763	1.6102	-1.4233**	0.2409**
Non_energy_goods_inflation_11	0.1214	1.1291	-2.9728***	0.0512***
Non_energy_goods_inflation_12	0.5247	1.69	-2.0939***	0.1232***
-	11.9824**			
Housing_services_inflation_1	*	0***	2.2006	9.0302
-	17.2424**			
Housing_services_inflation_2	*	0***	2.8902	17.9965
Housing_services_inflation_3	-6.3898***	0.0017***	15.1854**	3935100***
Housing_services_inflation_4	-1.9495	0.1423	*	3.983
Housing_services_inflation_5	-9.1545***	0.0001***	12.5638**	286010***
Housing_services_inflation_6	-11.387***	0***	*	1.6323
-	10.9564**			
Housing_services_inflation_7	*	0***	-8.2887***	0.0003***
Housing_services_inflation_8	-1.1481	0.3172	-8.3955***	0.0002***
Housing_services_inflation_9	0.5245	1.6896	4.6032*	99.8016*

Housing_services_inflation_10	-3.3159	0.0363	5.5229**	250.3714**
			16.0186**	
Housing_services_inflation_11	-7.2768***	0.0007***	*	9052900***
			10.3597**	31560.9964*
Housing_services_inflation_12	-7.62***	0.0005***	*	**
Transport/travel_services_inflation_1	-2.3696***	0.0935***	-0.7632	0.4662
Transport/travel_services_inflation_2	-0.8283	0.4368	0.7371	2.0898
Transport/travel_services_inflation_3	0.1942	1.2144	1.9653***	7.1373***
Transport/travel_services_inflation_4	0.7106	2.0353	1.8095***	6.1074***
Transport/travel_services_inflation_5	-1.046	0.3513	1.5458***	4.6917***
Transport/travel_services_inflation_6	1.7602*	5.8137*	1.4629***	4.3185***
Transport/travel_services_inflation_7	2.3215***	10.191***	-0.435	0.6473
Transport/travel_services_inflation_8	-0.2736	0.7606	1.5489***	4.7064***
Transport/travel_services_inflation_9	-0.789	0.4543	0.2264	1.2541
Transport/travel_services_inflation_10	-1.1618	0.3129	0.7304	2.0758
Transport/travel_services_inflation_11	-1.1936	0.3031	1.2249**	3.4038**
Transport/travel_services_inflation_12	0.7808	2.1833	-0.0983	0.9064
Communication_inflation_1	-2.3906**	0.0916**	2.4198***	11.2439***
Communication_inflation_2	-2.5478**	0.0783**	0.8705	2.3882
Communication_inflation_3	-3.1921***	0.0411***	0.2722	1.3129
Communication_inflation_4	-0.025	0.9753	4.4437***	85.0912***
Communication_inflation_5	0.0636	1.0657	4.4736***	87.6732***
Communication_inflation_6	-0.0424	0.9585	3.3609***	28.8164***
Communication_inflation_7	2.7441***	15.55***	4.6643***	106.0941***
Communication_inflation_8	0.1046	1.1103	-2.3874***	0.0919***
Communication_inflation_9	-0.2307	0.794	1.7689**	5.8642**
Communication_inflation_10	1.3463	3.8432	3.2612***	26.0811***
Communication_inflation_11	2.3175**	10.15**	3.6154***	37.1677***
Communication_inflation_12	2.9047***	18.26***	-0.5087	0.6013
Recreational/personal_services_inflatio n_1	-7.0805**	0.0008**	*	3258300***
Recreational/personal_services_inflatio n_2	1.9004	6.6887	*	*
Recreational/personal_services_inflatio n_3	6.2955*	542.1319*	*	192580***
Recreational/personal_services_inflatio n_4	13.9029**	*	9.8127***	18263.7856*
Recreational/personal_services_inflatio n_5	12.4254**	1091300***	12.8931**	**
Recreational/personal_services_inflatio n_6	*	249050***	*	397560***
Recreational/personal_services_inflatio n_7	2.4763	11.8974	4.4005*	81.492*
Recreational/personal_services_inflatio n_8	7.1028**	1215.3432**	-0.1595	0.8526
Recreational/personal_services_inflatio n_8	9.5262***	13715.0227*	11.3343**	83643.2477*
		**	*	**

Recreational/personal_services_inflatio n_9	2.7266	15.281	11.1897**	72383.6721*
			*	**
Recreational/personal_services_inflatio n_10	10.7624**	47209.8***	14.5385**	2060600***
	*		*	
Recreational/personal_services_inflatio n_11	-0.029	0.9714	15.5031**	5406700***
			*	
Recreational/personal_services_inflatio n_12	-5.9144*	0.0027*	13.4513**	694710***
			*	
Miscellaneous_services_inflation_1	-4.0108**	0.0181**	2.0793	7.9992
Miscellaneous_services_inflation_2	1.1081	3.0285	3.5803*	35.8827*
			12.7827**	
Miscellaneous_services_inflation_3	0.3948	1.484	*	355990***
Miscellaneous_services_inflation_4	1.8097	6.1085	-4.0421**	0.0176**
Miscellaneous_services_inflation_5	-0.011	0.9891	-7.2915***	0.0007***
Miscellaneous_services_inflation_6	-1.7096	0.1809	-5.2198***	0.0054***
Miscellaneous_services_inflation_7	-0.7396	0.4773	-5.0969***	0.0061***
Miscellaneous_services_inflation_8	-1.0762	0.3409	-8.1811***	0.0003***
			-	
			11.7088**	
Miscellaneous_services_inflation_9	0.2492	1.283	*	0***
Miscellaneous_services_inflation_10	-0.9229	0.3973	-3.0758*	0.0462*
Miscellaneous_services_inflation_11	-7.1969***	0.0007***	-4.6249***	0.0098***
Miscellaneous_services_inflation_12	3.5633*	35.2785*	-9.3733***	0.0001***
Food/Non_alcoholic_expenditure	-0.6535	0.5202	-0.0582	0.9435
Alcoholic_expenditure	0.2176	1.2431	0.0049	1.005
Energy_expenditure	-0.0853	0.9182	-0.017	0.9832
Non_energy_goods_expenditure	0.9702	2.6385	-0.011	0.9891
Housing_services_expenditure	2.4589***	11.6918***	0.117	1.1242
Transport/travel_services_expenditure	0.1945	1.2147	-0.0618	0.9401
Communication_expenditure	-1.2813**	0.2777**	-0.1077	0.8979
Recreational/personal_services_expend iture	-0.323	0.724	-0.0417	0.9592
Miscellaneous_services_expenditure	0.6948	2.0034	-0.066	0.9362

Miscellaneous Services			
	without sales	full sample	
		coef	H.R.
SE		0.064***	1.0661***
SW		-0.0418***	0.9591***
East_Anglia		-0.0334***	0.9671***
East_Midlands		-0.0255**	0.9749**
West_Midlands		0.0027	1.0027
Yorks_Humber		-0.0307***	0.9698***

NW	0.0482***	1.0493***
North	-0.0834***	0.92***
Wales	-0.0744***	0.9283***
Scotland	-0.0195*	0.9807*
NI	-0.0437***	0.9573***
FEB	-0.0014	0.9986
MAR	0.0367	1.0374
APR	-0.004	0.996
MAY	0.0142	1.0143
JUN	-0.0253	0.975
JUL	0.0154	1.0155
AUG	0.0221	1.0223
SEP	0.0034	1.0034
OCT	0.0039	1.0039
NOV	0.07***	1.0725***
DEC	-0.0451*	0.9559*
wage	1.8558***	6.3965***
independent	0.1229***	1.1308***
tax	-1.0317***	0.3564***
NX	-0.0473***	0.9538***
nine_ending	-0.044***	0.9569***
zero_ending	0.0068	1.0069
market_share	0.0072***	1.0073***
increase_increase	-0.3396***	0.7121***
increase_decrease	-0.1174***	0.8893***
decrease_decrease	0.0292**	1.0296**
oil	0.0055	1.0055
oil_1	0.0014***	1.0014***
oil_2	0.0021***	1.0021***
oil_3	-0.0002	0.9998
oil_4	0.0012***	1.0012***
oil_5	0.0001	1.0001
oil_6	-0.0002	0.9998
oil_7	-0.0002	0.9998
oil_8	-0.0014***	0.9986***
oil_9	-0.0015***	0.9985***
oil_10	-0.0013***	0.9987***
oil_11	-0.0017***	0.9983***
oil_12	-0.0012**	0.9988**
inflation_1	-1.3653	0.2553
inflation_2	-0.3346	0.7156
inflation_3	5.8151***	335.3187***
inflation_4	5.5442***	255.7626***

inflation_5	3.9925**	54.1908**
inflation_6	0.6619	1.9384
inflation_7	0.5554	1.7426
inflation_8	2.9521*	19.1458*
inflation_9	-2.5237	0.0802
inflation_10	-0.9667	0.3803
inflation_11	-4.5345**	0.0107**
inflation_12	1.0428	2.8373
R	-0.2167***	0.8052***
R_1	0.0006	1.0006
R_2	-0.0002	0.9998
R_3	-0.0013**	0.9987**
R_4	-0.0023***	0.9977***
R_5	-0.0027***	0.9973***
R_6	-0.001*	0.999*
R_7	0.002***	1.002***
R_8	0.0005	1.0005
R_9	0.0021***	1.0021***
R_10	0.0016***	1.0016***
R_11	0.0029***	1.0029***
R_12	0.0005	1.0005
Food/Non_alcoholic_inflation_1	0.4918	1.6353
Food/Non_alcoholic_inflation_2	3.3952***	29.8219***
Food/Non_alcoholic_inflation_3	-1.4674**	0.2305**
Food/Non_alcoholic_inflation_4	2.0584***	7.8337***
Food/Non_alcoholic_inflation_5	-0.4111	0.6629
Food/Non_alcoholic_inflation_6	-0.4432	0.642
Food/Non_alcoholic_inflation_7	-0.7261	0.4838
Food/Non_alcoholic_inflation_8	-0.9586*	0.3834*
Food/Non_alcoholic_inflation_9	-2.7012***	0.0671***
Food/Non_alcoholic_inflation_10	-1.1052*	0.3311*
Food/Non_alcoholic_inflation_11	1.1214*	3.069*
Food/Non_alcoholic_inflation_12	0.7376	2.0909
Alcoholic_inflation_1	-1.0658**	0.3445**
Alcoholic_inflation_2	-2.3174***	0.0985***
Alcoholic_inflation_3	-1.4783***	0.228***
Alcoholic_inflation_4	-0.4699	0.6251
Alcoholic_inflation_5	-0.2466	0.7814
Alcoholic_inflation_6	0.1351	1.1447
Alcoholic_inflation_7	0.8219*	2.2748*
Alcoholic_inflation_8	1.785***	5.9593***
Alcoholic_inflation_9	-0.5158	0.597
Alcoholic_inflation_10	-0.6013	0.5481

Alcoholic_inflation_11	-1.732***	0.1769***
Alcoholic_inflation_12	-1.3242***	0.266***
Energy_inflation_1	0.7006***	2.0149***
Energy_inflation_2	-0.3833*	0.6816*
Energy_inflation_3	1.0169***	2.7646***
Energy_inflation_4	0.9853***	2.6787***
Energy_inflation_5	1.6565***	5.241***
Energy_inflation_6	1.1106***	3.0362***
Energy_inflation_7	1.5111***	4.5319***
Energy_inflation_8	-0.3566	0.7001
Energy_inflation_9	0.581**	1.7877**
Energy_inflation_10	0.3627	1.4372
Energy_inflation_11	0.3979*	1.4887*
Energy_inflation_12	0.32	1.3771
Non_energy_goods_inflation_1	1.4063***	4.0809***
Non_energy_goods_inflation_2	0.1738	1.1898
Non_energy_goods_inflation_3	0.1896	1.2088
Non_energy_goods_inflation_4	0.1716	1.1872
Non_energy_goods_inflation_5	-0.0549	0.9465
Non_energy_goods_inflation_6	0.233	1.2624
Non_energy_goods_inflation_7	0.4829	1.6207
Non_energy_goods_inflation_8	0.474	1.6063
Non_energy_goods_inflation_9	-0.0696	0.9328
Non_energy_goods_inflation_10	-0.6457	0.5243
Non_energy_goods_inflation_11	0.164	1.1782
Non_energy_goods_inflation_12	1.4979***	4.4722***
Housing_services_inflation_1	-1.3978	0.2471
Housing_services_inflation_2	0.0853	1.0891
Housing_services_inflation_3	-2.3063*	0.0996*
Housing_services_inflation_4	0.5836	1.7924
Housing_services_inflation_5	6.4252***	617.2295***
Housing_services_inflation_6	1.6313	5.1107
Housing_services_inflation_7	-3.6375***	0.0263***
Housing_services_inflation_8	-1.2683	0.2813
Housing_services_inflation_9	1.7183	5.5752
Housing_services_inflation_10	5.211***	183.273***
Housing_services_inflation_11	6.7619***	864.2585***
Housing_services_inflation_12	0.1728	1.1886
Transport/travel_services_inflation_1	-0.6231	0.5363
Transport/travel_services_inflation_2	0.8183*	2.2667*
Transport/travel_services_inflation_3	2.3845***	10.854***
Transport/travel_services_inflation_4	0.5781	1.7826
Transport/travel_services_inflation_5	1.3044***	3.6854***

Transport/travel_services_inflation_6	1.8047***	6.0781***
Transport/travel_services_inflation_7	0.9824**	2.671**
Transport/travel_services_inflation_8	2.8805***	17.8238***
Transport/travel_services_inflation_9	2.0383***	7.6776***
Transport/travel_services_inflation_10	1.3171***	3.7324***
Transport/travel_services_inflation_11	0.3456	1.4128
Transport/travel_services_inflation_12	0.5052	1.6574
Communication_inflation_1	1.3582***	3.8892***
Communication_inflation_2	-0.1141	0.8921
Communication_inflation_3	0.0109	1.0109
Communication_inflation_4	1.822***	6.184***
Communication_inflation_5	3.3041***	27.223***
Communication_inflation_6	2.6374***	13.9765***
Communication_inflation_7	1.0292**	2.7987**
Communication_inflation_8	-1.6815***	0.1861***
Communication_inflation_9	-0.7182	0.4876
Communication_inflation_10	0.4125	1.5106
Communication_inflation_11	0.7039	2.0217
Communication_inflation_12	-1.4707***	0.2298***
Recreational/personal_services_inflation_1	7.3322***	1528.7453***
Recreational/personal_services_inflation_2	8.1032***	3305.0706***
Recreational/personal_services_inflation_3	5.8378***	343.0262***
Recreational/personal_services_inflation_4	0.8986	2.4562
Recreational/personal_services_inflation_5	-1.3493	0.2594
Recreational/personal_services_inflation_6	-6.4274***	0.0016***
Recreational/personal_services_inflation_7	-8.2418***	0.0003***
Recreational/personal_services_inflation_8	8.1415***	3433.9094***
Recreational/personal_services_inflation_9	3.7021**	40.5323**
Recreational/personal_services_inflation_10	5.0477***	155.6689***
Recreational/personal_services_inflation_11	9.4831***	13135.9877***
Recreational/personal_services_inflation_12	1.6657	5.2896
Miscellaneous_services_inflation_1	0.9874	2.6842
Miscellaneous_services_inflation_2	2.5251**	12.4915**
Miscellaneous_services_inflation_3	0.4206	1.5229
Miscellaneous_services_inflation_4	0.0879	1.0919
Miscellaneous_services_inflation_5	0.518	1.6787
Miscellaneous_services_inflation_6	-6.5673***	0.0014***
Miscellaneous_services_inflation_7	-6.0828***	0.0023***
Miscellaneous_services_inflation_8	-7.4041***	0.0006***
Miscellaneous_services_inflation_9	-8.1429***	0.0003***
Miscellaneous_services_inflation_10	-4.6795***	0.0093***
Miscellaneous_services_inflation_11	-6.4905***	0.0015***
Miscellaneous_services_inflation_12	-8.3789***	0.0002***

Food/Non_alcoholic_expenditure	1.8931***	6.6396***
Alcoholic_expenditure	-0.086	0.9176
Energy_expenditure	-0.3016***	0.7396***
Non_energy_goods_expenditure	0.9007**	2.4613**
Housing_services_expenditure	0.6657***	1.9458***
Transport/travel_services_expenditure	2.9607***	19.3117***
Communication_expenditure	-0.4879***	0.6139***
Recreational/personal_services_expenditure	0.4317	1.5398
Miscellaneous_services_expenditure	-1.1863***	0.3053***

Miscellaneous Services Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		coef	H.R.	coef	H.R.
SE		0.1178***	1.125***	0.0207*	1.0209*
SW		-0.0393**	0.9615**	-0.0342**	0.9663**
East_Anglia		-0.0304*	0.97*	-0.0065	0.9935
East_Midlands		-0.0244	0.9759	-0.0257*	0.9746*
West_Midlands		0.0046	1.0046	-0.0024	0.9976
Yorks_Humber		-0.0326*	0.9679*	-0.0236*	0.9767*
NW		0.0443***	1.0453***	0.0387***	1.0394***
North		-0.0863***	0.9173***	0.0824***	0.9209***
Wales		-0.0765***	0.9264***	0.0797***	0.9234***
Scotland		-0.0098	0.9902	-0.0124	0.9877
NI		-0.0607**	0.9411**	-0.0399**	0.9609**
FEB		-0.0738*	0.9289*	0.0288	1.0292
MAR		0.0925**	1.0969**	-0.0474	0.9537
APR		-0.0034	0.9966	-0.0139	0.9862
MAY		0.0437	1.0447	-0.0012	0.9988
JUN		0.0119	1.012	-0.0127	0.9874
JUL		0.0198	1.02	-0.0515	0.9498
AUG		0.0203	1.0205	0.0305	1.0309
SEP		-0.0068	0.9932	0.0535	1.055
OCT		0.0009	1.0009	0.043	1.044
NOV		0.0134	1.0135	0.0694*	1.0719*
DEC		-0.0567	0.9448	-0.0464	0.9547
wage		-1.454*	0.2336*	2.3132***	10.1068***
independent		-0.0898***	0.9141***	0.2616***	1.299***
tax		-0.4926*	0.611*	0.7333***	0.4803***
NX		0.0035	1.0035	-	0.7307***

			0.3137***	
nine_ending	0.0011	1.0011	-0.028***	0.9724***
			-	
zero_ending	0.1124***	1.1189***	0.0497***	0.9515***
market_share	0.0111***	1.0112***	0.0054***	1.0054***
			-	
increase_increase	-0.4361***	0.6465***	0.2969***	0.7431***
			-	
increase_decrease	-0.1612***	0.8511***	0.1035***	0.9017***
decrease_decrease	0.0728***	1.0756***	0.0442***	1.0452***
oil	-0.0729	0.9297	-0.0009	0.9991
oil_1	-0.0011	0.9989	0.0024***	1.0024***
oil_2	-0.0021**	0.9979**	0.0005	1.0005
oil_3	-0.0019**	0.9981**	0.0015*	1.0015*
oil_4	-0.0011	0.9989	0.0014*	1.0014*
oil_5	-0.0018**	0.9982**	0.0002	1.0002
oil_6	0.0004	1.0004	0.0009	1.0009
oil_7	0.0015	1.0015	0.0025***	1.0025***
oil_8	-0.0011	0.9989	-0.0007	0.9993
oil_9	-0.001	0.999	0.0008	1.0008
oil_10	-0.0016*	0.9984*	0.0001	1.0001
oil_11	-0.0031***	0.9969***	-0.0001	0.9999
oil_12	-0.0018*	0.9982*	-0.0004	0.9996
inflation_1	1.2243	3.4017	-4.7217**	0.0089**
inflation_2	-0.8009	0.4489	-3.3065	0.0366
inflation_3	4.3604	78.2887	2.2159	9.1695
		15783.2514*		
inflation_4	9.6667***	**	1.3037	3.683
inflation_5	6.5881**	726.4325**	6.0144**	409.2617**
inflation_6	8.4705**	4771.6942**	-0.8064	0.4465
	10.7569**	46952.7896*		
inflation_7	*	**	-2.8182	0.0597
inflation_8	7.4407**	1703.8624**	-0.5744	0.5631
inflation_9	5.767*	319.5865*	-2.6127	0.0733
inflation_10	2.1464	8.5539	-0.204	0.8155
inflation_11	0.3358	1.399	-3.8915	0.0204
inflation_12	3.0836	21.8366	-1.2252	0.2937
R	0.934***	2.5446***	-0.344***	0.709***
R_1	0.0083***	1.0084***	0.0005	1.0005
R_2	0.0104***	1.0105***	-0.0012	0.9988
R_3	-0.0017	0.9983	-0.0011	0.9989
			-	
R_4	-0.0011	0.9989	0.0034***	0.9966***
R_5	-0.011***	0.9891***	0	1

			-	
R_6	0.0063***	1.0063***	0.0024***	0.9976***
R_7	0.0041*	1.0041*	0.0022***	1.0022***
R_8	0.0053**	1.0054**	0.0008	1.0008
R_9	0.0088***	1.0088***	0.002**	1.002**
R_10	0.0106***	1.0106***	0.0023***	1.0023***
R_11	0.0149***	1.015***	0.0029***	1.0029***
R_12	0.0055**	1.0055**	0.0002	1.0002
Food/Non_alcoholic_inflation_1	-0.5028	0.6049	2.6726**	14.4772**
Food/Non_alcoholic_inflation_2	2.5886**	13.3108**	1.7856	5.9633
Food/Non_alcoholic_inflation_3	-0.6847	0.5042	0.9239	2.5191
Food/Non_alcoholic_inflation_4	0.0321	1.0326	1.973*	7.1922*
			-	
Food/Non_alcoholic_inflation_5	6.0787***	436.4592***	3.8675***	0.0209***
			-	
Food/Non_alcoholic_inflation_6	3.49***	32.7873***	4.4429***	0.0118***
Food/Non_alcoholic_inflation_7	1.9575*	7.0817*	-1.1986	0.3016
Food/Non_alcoholic_inflation_8	-0.9171	0.3997	-2.6882**	0.068**
Food/Non_alcoholic_inflation_9	-4.5909***	0.0101***	-2.1929**	0.1116**
Food/Non_alcoholic_inflation_10	-3.1303***	0.0437***	-0.4789	0.6195
Food/Non_alcoholic_inflation_11	-0.6404	0.5271	1.2063	3.3411
Food/Non_alcoholic_inflation_12	-1.6195	0.198	0.5466	1.7274
			-	
Alcoholic_inflation_1	6.5668***	711.0853***	3.9195***	0.0199***
			-	
Alcoholic_inflation_2	2.8102**	16.6129**	3.0237***	0.0486***
			-	
Alcoholic_inflation_3	0.0202	1.0204	1.7509***	0.1736***
			-	
Alcoholic_inflation_4	3.1857**	24.185**	1.8246***	0.1613***
Alcoholic_inflation_5	2.5056*	12.2506*	0.075	1.0779
Alcoholic_inflation_6	6.848***	941.9531***	-0.0905	0.9135
Alcoholic_inflation_7	5.1836***	178.3214***	0.5873	1.7991
Alcoholic_inflation_8	4.2***	66.6869***	-0.2025	0.8167
Alcoholic_inflation_9	3.493***	32.8836***	-0.1696	0.844
Alcoholic_inflation_10	4.1808***	65.4204***	-0.8033	0.4478
Alcoholic_inflation_11	3.2676**	26.2476**	-1.2669*	0.2817*
Alcoholic_inflation_12	-1.3065	0.2708	-1.4664**	0.2307**
Energy_inflation_1	1.7324***	5.6542***	0.0189	1.0191
Energy_inflation_2	0.2617	1.2991	-0.4634	0.6291
Energy_inflation_3	-0.3811	0.6831	0.6185*	1.8562*
Energy_inflation_4	0.292	1.3391	1.1192***	3.0625***
Energy_inflation_5	1.7758***	5.9051***	1.8035***	6.071***
Energy_inflation_6	0.089	1.0931	1.365***	3.9159***

Energy_inflation_7	0.9076*	2.4784*	1.0863***	2.9634***
Energy_inflation_8	0.0134	1.0135	-0.6109	0.5429
Energy_inflation_9	-0.6076	0.5446	-0.1626	0.85
Energy_inflation_10	2.1682***	8.7422***	-1.416***	0.2427***
Energy_inflation_11	3.0145***	20.3785***	-0.3958	0.6731
Energy_inflation_12	2.3746***	10.747***	1.062***	2.8922***
Non_energy_goods_inflation_1	1.8474**	6.3432**	0.4213	1.5239
Non_energy_goods_inflation_2	0.5728	1.7732	0.7119	2.0379
Non_energy_goods_inflation_3	0.4269	1.5325	1.7017**	5.4834**
Non_energy_goods_inflation_4	0.5796	1.7852	0.3869	1.4723
Non_energy_goods_inflation_5	-1.3462	0.2602	-0.2993	0.7413
Non_energy_goods_inflation_6	0.4498	1.568	-1.8765**	0.1531**
Non_energy_goods_inflation_7	0.3164	1.3722	-1.0366	0.3547
Non_energy_goods_inflation_8	0.2229	1.2497	-0.3854	0.6802
Non_energy_goods_inflation_9	1.0298	2.8006	-0.5738	0.5634
Non_energy_goods_inflation_10	0.912	2.4892	-0.9331	0.3933
Non_energy_goods_inflation_11	-0.4242	0.6543	-1.7371**	0.176**
Non_energy_goods_inflation_12	0.7639	2.1467	-0.4304	0.6503
	-			
	11.0617**			21682.4045**
Housing_services_inflation_1	*	0***	9.9843***	*
	-			
	14.9051**			
Housing_services_inflation_2	*	0***	-2.4743	0.0842
Housing_services_inflation_3	-4.9219**	0.0073**	5.0928	162.8373
Housing_services_inflation_4	-0.0211	0.9791	-0.1116	0.8944
			16.0115*	
Housing_services_inflation_5	-3.3866	0.0338	**	8988900***
Housing_services_inflation_6	-3.8294*	0.0217*	5.6262*	277.594*
Housing_services_inflation_7	-7.8224***	0.0004***	4.3415	76.826
Housing_services_inflation_8	-0.0107	0.9894	8.7161***	6100.3457***
			11.5387*	
Housing_services_inflation_9	-0.9621	0.3821	**	102610***
Housing_services_inflation_10	-0.1846	0.8315	8.7473***	6293.9034***
			14.7776*	
Housing_services_inflation_11	-3.8888	0.0205	**	2617100***
			10.4541*	
Housing_services_inflation_12	-5.0239**	0.0066**	**	34687.325***
Transport/travel_services_inflation_1	-3.8152***	0.022***	-0.6756	0.5088
Transport/travel_services_inflation_2	-1.3423	0.2612	0.4401	1.5528
Transport/travel_services_inflation_3	0.4816	1.6187	1.7541***	5.7783***
Transport/travel_services_inflation_4	2.1013**	8.1766**	1.5692**	4.8027**
Transport/travel_services_inflation_5	0.144	1.1549	1.1332*	3.1055*
Transport/travel_services_inflation_6	-0.1373	0.8717	1.0188	2.7699

Transport/travel_services_inflation_7	2.5389**	12.6652**	0.1863	1.2047
Transport/travel_services_inflation_8	0.4094	1.5059	1.9181***	6.8083***
Transport/travel_services_inflation_9	0.8364	2.3081	0.811	2.2502
Transport/travel_services_inflation_10	-0.0603	0.9415	0.4988	1.6468
Transport/travel_services_inflation_11	-0.7737	0.4613	1.1234	3.0754
Transport/travel_services_inflation_12	1.3307	3.7837	0.1773	1.194
Communication_inflation_1	-1.1172	0.3272	0.4681	1.597
Communication_inflation_2	-0.6178	0.5392	-0.5195	0.5948
Communication_inflation_3	-4.0364***	0.0177***	0.1401	1.1504
Communication_inflation_4	-0.8607	0.4229	2.7355***	15.417***
Communication_inflation_5	0.3398	1.4047	2.7863***	16.2214***
Communication_inflation_6	1.3273	3.7707	0.7448	2.1061
Communication_inflation_7	3.2016***	24.5708***	0.388	1.4741
			-	
Communication_inflation_8	-0.9342	0.3929	5.0548***	0.0064***
Communication_inflation_9	-1.5377	0.2149	-0.679	0.5071
Communication_inflation_10	-2.5655**	0.0769**	-0.1956	0.8224
Communication_inflation_11	-1.609	0.2001	1.543*	4.6786*
Communication_inflation_12	-1.2529	0.2857	-0.7039	0.4946
Recreational/personal_services_inflation_1	-9.1269**	0.0001**	21.1145*	1478800000*
			**	**
Recreational/personal_services_inflation_2	-1.0674	0.3439	14.6296*	
			**	2257100***
Recreational/personal_services_inflation_3	-6.53*	0.0015*	9.1832***	9732.2903***
Recreational/personal_services_inflation_4	-1.2124	0.2975	3.3313	27.976
Recreational/personal_services_inflation_5	0.0483	1.0494	3.724	41.4317
Recreational/personal_services_inflation_6	-8.0053**	0.0003**	-0.4578	0.6326
Recreational/personal_services_inflation_7	-5.7746	0.0031	-5.5649*	0.0038*
Recreational/personal_services_inflation_8	-1.6728	0.1877	10.8385*	50942.9006**
			**	*
Recreational/personal_services_inflation_9	-0.4646	0.6284	2.9421	18.9557
Recreational/personal_services_inflation_10	-1.1302	0.323	5.6748*	291.4314*
Recreational/personal_services_inflation_11	-1.7168	0.1796	7.7419**	2302.8571**
			-	
Recreational/personal_services_inflation_12	10.6947**	*	0***	5.1279
				168.6624
Miscellaneous_services_inflation_1	-3.2337	0.0394	2.6073	13.562
Miscellaneous_services_inflation_2	1.7402	5.6986	2.5084	12.2853

				13923.7094**
Miscellaneous_services_inflation_3	2.798	16.4118	9.5413***	*
Miscellaneous_services_inflation_4	1.1312	3.0995	-2.6274	0.0723
Miscellaneous_services_inflation_5	-0.2614	0.77	3.0886	21.9457
Miscellaneous_services_inflation_6	-1.3272	0.2652	2.3886	10.8978
Miscellaneous_services_inflation_7	-0.9041	0.4049	-2.8722	0.0566
Miscellaneous_services_inflation_8	-3.1066	0.0448	-5.6047**	0.0037**
			-	
Miscellaneous_services_inflation_9	-2.5602	0.0773	9.3783***	0.0001***
Miscellaneous_services_inflation_10	-5.2595**	0.0052**	-3.865*	0.021*
	-			
	10.5844**			
Miscellaneous_services_inflation_11	*	0***	-0.1213	0.8858
			-	
Miscellaneous_services_inflation_12	-1.0817	0.339	8.2655***	0.0003***
Food/Non_alcoholic_expenditure	-4.0599***	0.0173***	1.3852***	3.9958***
Alcoholic_expenditure	-2.9831***	0.0506***	-0.1968**	0.8213**
Energy_expenditure	1.3794***	3.9724***	0.3738***	1.4533***
Non_energy_goods_expenditure	-0.4005	0.67	-0.1238	0.8836
Housing_services_expenditure	-3.7656***	0.0232***	2.1087***	8.2374***
		3643.5266**		
Transport/travel_services_expenditure	8.2007***	*	3.5479***	34.7393***
Communication_expenditure	-2.5866***	0.0753***	-1.548***	0.2127***
Recreational/personal_services_expenditure	0.8081	2.2435	-0.4189	0.6577
			-	
Miscellaneous_services_expenditure	-0.7561**	0.4695**	1.0779***	0.3403***

Appendix 13: Panel Regressions Results

Panel Regression Full Sample Results			
	with sales	full sample	
		FE	RE
R		50.897	33.463
R_1		-0.3846	-0.3831
R_2		0.047	0.7771**
R_3		0.6624	0.2162
R_4		-1.2503***	-0.6952**
R_5		0.168	0.5524
R_6		-0.5235	-0.269
R_7		0.4474	0.3979
R_8		0.1724	0.215

R_9	-0.2193	0.0154
R_10	0.6312	0.4684
R_11	-0.8548**	-0.539
R_12	0.6244	0.6671**
dummy_D	52.65***	115.49***
dummy_SD	6.1525	-2.7826
dummy_increase	41.228***	47.075***
dummy_independent	-8.5157*	-1.1213
dummy_nine_ending	10.675*	30.925***
dummy_sales	-6.8872	21.694***
dummy_zero_ending	20.659***	36.003***
expenditure_Alcoholic	0.0466***	-0.0245*
expenditure_Communication	-0.0707***	-0.02
expenditure_Energy	0.0057*	-0.0021
expenditure_Housing_services	0.045	0.0966**
expenditure_Miscellaneous_services	0.0025	-0.0084**
expenditure_Non_energy_goods	0.0053	0.0079*
expenditure_Recreational_personal_services	-0.0051	-0.0058
expenditure_Transport_travel_services	-0.0098	0.0005
inflation_1	-54.464***	-16.359
inflation_2	-41.148***	-6.4626
inflation_3	-42.415***	-15.459
inflation_4	17.695	23.525**
inflation_5	-50.245***	-29.725**
inflation_6	-18.362	-21.836**
inflation_7	-28.178**	-32.525***
inflation_8	-35.165***	-25.947**
inflation_9	5.3584	-3.8815
inflation_10	1.1254	-5.6195
inflation_11	-20.965	-1.2262
inflation_12	-14.624	-4.0165
location_East_Anglia	-14.487	-47.122
location_East_Midlands	-20.069**	-20.135
location_NI	-11.152	-17.629
location_NW	-18.78**	-49.816
location_North	-27.13**	-57.301
location_SE	16.149**	47.645
location_SW	-22.363**	-52.603
location_Scotland	-15.478*	-33.314
location_Wales	-26.734**	-58.662
location_West_Midlands	-18.602**	-39.801
location_Yorks_Humber	-16.305*	-33.104
market_share	2.0262***	24.598***

month_APR	-5.7327	-31.478
month_AUG	34.448	-20.499
month_DEC	-58.157**	-8.6293
month_FEB	-46.931**	-35.37*
month_JUL	37.757*	-16.978
month_JUN	-13.099	-43.838**
month_MAR	19.153	1.8565
month_MAY	51.135**	14.363
month_NOV	0.9161	27.336
month_OCT	17.622	25.09
month_SEP	-7.1644	-13.702
oil	-11.05	-38.961
oil_1	0.3466	-0.1142
oil_2	1.3818***	-0.0687
oil_3	1.1584***	-0.1563
oil_4	1.3805***	0.7759**
oil_5	0.9229**	-0.1082
oil_6	1.3708***	1.0477***
oil_7	0.2915	0.4124
oil_8	1.0595***	0.5306*
oil_9	0.2707	-0.1986
oil_10	-0.1677	0.1793
oil_11	1.1955***	0.8154***
oil_12	1.7347***	1.3475***
ppi_input	8.5222**	3.1474
ppi_input_1	-7.2551	-2.994
ppi_input_2	-1.9459	-3.2583
ppi_input_3	6.4646	4.0731
ppi_input_4	-0.6192	0.0124
ppi_input_5	-5.6135	1.244
ppi_input_6	-4.0952	-1.615
ppi_input_7	5.457	-0.8926
ppi_input_8	5.5684	4.0913
ppi_input_9	-1.3902	-2.7118
ppi_input_10	-2.7591	-2.0106
ppi_input_11	6.6653	5.4501
ppi_input_12	-5.3754*	-3.4627
ppi_output	-5.2454	2.8383
ppi_output_1	0.9463	-5.8749
ppi_output_2	2.2347	7.9368
ppi_output_3	-2.3794	-5.846
ppi_output_4	-5.1118	-6.5593
ppi_output_5	10.315	4.9175

ppi_output_6	-1.0616	-0.3665
ppi_output_7	5.8935	8.2972
ppi_output_8	-16.479*	-10.136
ppi_output_9	13.918	13.343*
ppi_output_10	-2.1034	-6.3381
ppi_output_11	-11.057	-9.1308
ppi_output_12	6.265	8.4179**
sector_Communication	-0.2909	70.309
sector_Energy	-42.167	21.132
sector_Housing	-6.5007	46.337
sector_Miscellaneous	23.037**	-21.931
sector_Non_Alcoholic_Beverage	-13.081	64.989*
sector_Non_Energy	-1.7651	71.277*
sector_Recreational_Personal	-23.513	56.536
sector_Transport_Travel	-18.953	35.045

Panel Regression Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-156.6	-38.42	-2.5174**	-1.064
R_1	0.5402	-1.4953	-0.039***	-0.0404***
R_2	1.2571	-0.1647	0.0146	0.0159
R_3	-0.3264	-1.7464	0.0056	-0.0055
R_4	-7.111***	-6.376***	0.0144	0.0232**
R_5	0.828	2.6629	-0.0263**	-0.032***
R_6	0.2134	2.535	-0.0571***	-0.0389***
R_7	2.7874	2.8731	0.0565***	0.0288**
R_8	-0.4669	-1.7256	-0.0054	-0.0032
R_9	-3.7056	-4.2235*	-0.0073	-0.0072
R_10	0.6751	0.1037	-0.0628***	-0.0527***
R_11	-0.4901	-1.378	0.0169	0.0215**
R_12	6.2087***	6.3007***	0.0025	-0.0057
dummy_D	129.44***	178.31***	-10.716***	-18.086***
dummy_SD	-1.9678	-25.872	15.493***	8.8716***
dummy_increase	65.168***	78.942***	22.919***	24.455***
dummy_independent	-21.68**	-6.6645	2.8024***	5.3185***
dummy_nine_ending	18.801	66.365***	2.2221***	0.8045***
dummy_sales	-18.014	42.542***	2.1915***	4.2273***
dummy_zero_ending	37.423***	81.691***	7.2882***	5.5023***
expenditure_Alcoholic	-0.0275	-0.1219	-0.0015**	-0.0003
expenditure_Communication	0.0117	0.0854	-0.0066***	-0.0027***

expenditure_Energy	0.0145	-0.0096	0.0006***	0.0001
expenditure_Housing_services	-0.1693	0.232	0.0126***	0.0157***
expenditure_Miscellaneous_services	0.0312	-0.0118	0.0003**	0.0002
expenditure_Non_energy_goods	-0.0045	0.0034	0.0008***	8.82E-05
expenditure_Recreational_personal_services	0.0059	0.0087	0.0003*	0.0003**
expenditure_Transport_travel_services	-0.0155	-0.003	-0.0016***	-0.001***
inflation_1	79.515	78.279	-37.965***	-29.749***
inflation_2	-74.359	-7.1775	17.669***	9.4675*
inflation_3	-148.75**	-90.339	-13.021**	-16.135***
inflation_4	81.198	53.684	32.794***	22.151***
inflation_5	-15.38*	-112.69	40.974***	21.785***
inflation_6	79.874	-79.267	-10.182**	-2.2293
inflation_7	-16.365	-60.521	-2.9915	7.7294*
inflation_8	-36.221	-67.858	-13.964***	-5.8838
inflation_9	11.085*	57.854	21.046***	21.924***
inflation_10	91.1959	39.232	9.8184*	-0.4371
inflation_11	52.946	106.25**	23.557***	14.977***
inflation_12	31.065	37.965	17.215***	9.4496**
location_East_Anglia	-23.35	-84.75	-7.2882***	-2.8638***
location_East_Midlands	-36.037*	-49.006	-7.6298***	-2.8644***
location_NI	-3.925	-33.749	-11.993***	-4.1203***
location_NW	-36.588*	-91.822	-7.657***	-2.2911***
location_North	-46.557*	-100.23	-11.558***	-3.8585***
location_SE	33.343*	52.851	-2.8031***	-0.8524**
location_SW	-39.115*	-93.418	-9.5058***	-4.1087***
location_Scotland	-26.404	-63.246	-7.3002***	-3.1008***
location_Wales	-45.069*	-99.561	-11.849***	-5.1419***
location_West_Midlands	-30.156	-73.486	-8.2658***	-2.9795***
location_Yorks_Humber	-28.095	-63.287	-6.7541***	-2.1196***
market_share	2.411	39.033***	2.0193***	4.3226***
month_APR	-54.152	-69.277	6.6294***	3.1149***
month_AUG	132.61	62.348	11.821***	5.5015***
month_DEC	-81.552	76.368	4.9211***	2.1032***
month_FEB	-30.646	34.03	2.925***	1.9215**
month_JUL	128.52	-0.8701	9.6107***	4.3811***
month_JUN	-43.105	-35.808	11.794***	4.6433***
month_MAR	-36.481	-21.638	11.202***	6.4703***
month_MAY	169.9*	75.866	11.452***	5.6062***
month_NOV	104.47	149.77*	6.0695***	2.2699***
month_OCT	64.5	116.72	10.569***	6.0046***
month_SEP	-32.81	-14.182	9.4335***	4.3675***
oil	-100.84	-123.47	2.5846*	-1.0096
oil_1	0.5117	-0.7359	0.0651***	0.0521***

oil_2	3.9331***	0.6149	0.1457***	0.1026***
oil_3	3.6729**	0.4731	0.0811***	0.0577***
oil_4	3.2599**	1.9748	0.1025***	0.0756***
oil_5	3.3749**	1.2601	0.0544***	0.0659***
oil_6	3.3531**	2.5347**	0.014	-0.0012
oil_7	2.6729*	2.0679*	-0.0263*	-0.0354**
oil_8	1.8587	0.8881	0.0594***	0.0168
oil_9	1.126	-0.1014	0.1038***	0.0607***
oil_10	2.6557*	2.7782**	0.0242*	0.0119
oil_11	4.136***	2.6205**	0.0592***	0.0352***
oil_12	5.144***	4.7666***	-0.0203	-0.0191
ppi_input	25.862*	26.061**	-0.7257***	-0.5538***
ppi_input_1	-23.057	-21.914	-0.2423	-0.1449
ppi_input_2	-7.3067	-5.4391	0.3263*	0.3622**
ppi_input_3	16.389	17.256	-0.2234	-0.3731**
ppi_input_4	-12.538	-14.442	0.3787**	0.2997*
ppi_input_5	8.3714	9.9374	0.3769**	0.1407
ppi_input_6	5.1132	12.955	-0.6981***	-0.3169*
ppi_input_7	-15.917	-25.117*	-0.2761	-0.3021*
ppi_input_8	12.673	11.286	0.9912***	0.7133***
ppi_input_9	4.9276	0.8599	-0.966***	-0.8046***
ppi_input_10	-28.774*	-16.702	0.7748***	0.8179***
ppi_input_11	30.33**	19.977*	-0.7969***	-0.6472***
ppi_input_12	-5.2406	-4.6584	0.1121	-0.0213
ppi_output	-62.307***	-32.151	0.4785**	0.3024
ppi_output_1	0.4398	-14.297	1.2969***	0.835***
ppi_output_2	6.2683	14.698	-2.9266***	-2.1021***
ppi_output_3	2.6112	-17.257	1.8549***	1.7106***
ppi_output_4	-6.7664	-10.913	-0.0803	-0.2775
ppi_output_5	10.74	4.0286	-2.5785***	-1.9175***
ppi_output_6	-12.52	4.4354	4.0622***	3.2231***
ppi_output_7	35.098	25.446	-1.73***	-1.6689***
ppi_output_8	-38.031	-22.902	-0.891**	-0.2495
ppi_output_9	34.988	25.218	1.73***	1.026***
ppi_output_10	-37.476	-28.831	-1.5676***	-1.3191***
ppi_output_11	13.999	-5.5783	1.4334***	1.3778***
ppi_output_12	-3.0067	14.169	-0.6017***	-0.5388***
sector_Communication	-20.727	24.235	-6.6267***	-3.6601***
sector_Energy	-12.15	10.591	5.6949***	9.5984***
sector_Housing	-56.033	-36.538	-29.667***	-26.886***
sector_Miscellaneous	-22.717	-20.077	9.4738***	2.779***
sector_Non_Alcoholic_Beverage	14.122	-43.726	23.133***	16.699***
sector_Non_Energy	-11.945	25.388	3.9833***	6.2928***

sector_Recreational_Personal	-38.409	4.2503	-12.265***	-13.123***
sector_Transport_Travel	-48.522	-47.158	2.2173***	-5.2474***

Panel Regression Full Sample Results			
	without sales	full sample	
		FE	RE
R		50.686	20.975
R_1		-0.2723	-0.5328
R_2		0.3401	1.2682***
R_3		0.5875	-0.0877
R_4		-1.541***	-0.8694**
R_5		0.2718	0.6611
R_6		-0.4092	-0.2235
R_7		0.5091	0.4694
R_8		0.0303	-0.0302
R_9		0.0553	0.351
R_10		0.6005	0.3073
R_11		-0.9096*	-0.4433
R_12		0.748	0.6951*
dummy_D		73.606***	132.31***
dummy_SD		4.0132	-7.5323
dummy_increase		43.762***	44.237***
dummy_independent		-10.056*	6.9273
dummy_nine_ending		9.7104	35.18***
dummy_zero_ending		24.019***	41.991***
expenditure_Alcoholic		0.0567***	-0.0308*
expenditure_Communication		-0.0867***	-0.0162
expenditure_Energy		0.0069*	-0.0019
expenditure_Housing_services		0.0538	0.0903
expenditure_Miscellaneous_services		0.0031	-0.0092**
expenditure_Non_energy_goods		0.0068	0.008
expenditure_Recreational_personal_services		-0.0071	-0.0051
expenditure_Transport_travel_services		-0.0116	0.0006
inflation_1		-76.659***	-23.326*
inflation_2		-48.525***	-3.2674
inflation_3		-54.452***	-13.758
inflation_4		16.248	19.315
inflation_5		-60.365***	-25.959*
inflation_6		-21.414	-15.565
inflation_7		-45.365***	-46.254***
inflation_8		-43.759***	-28.148**

inflation_9	8.4615	-0.3471
inflation_10	-2.2651	-13.714
inflation_11	-22.958	2.3259
inflation_12	-22.642	-4.5415
location_East_Anglia	-15.998	-50.162
location_East_Midlands	-23.62**	-18.974
location_NI	-12.799	-18.601
location_NW	-22.091**	-52.904
location_North	-32.613**	-61.751
location_SE	20.488**	73.572*
location_SW	-26.304**	-55.832
location_Scotland	-18.125*	-35.618
location_Wales	-32.086**	-62.455
location_West_Midlands	-21.161*	-39.337
location_Yorks_Humber	-19.173*	-34.895
market_share	4.1922***	34.192***
month_APR	3.0042	-26.95
month_AUG	35.866	-32.081
month_DEC	-58.617*	4.4746
month_FEB	-53.626*	-39.055
month_JUL	54.519**	-6.6471
month_JUN	-6.5388	-36.574
month_MAR	35.353	12.142
month_MAY	70.514***	17.954
month_NOV	5.045	25.374
month_OCT	32.874	37.041
month_SEP	5.3017	-7.6987
oil	-6.6863	-35.903
oil_1	0.4964	0.1014
oil_2	1.5638***	-0.1487
oil_3	1.4613***	-0.1726
oil_4	1.6185***	0.9174**
oil_5	1.2465***	-0.041
oil_6	1.4539***	1.0262***
oil_7	0.5824	0.7382**
oil_8	1.2563***	0.7337**
oil_9	0.0062	-0.422
oil_10	-0.195	0.2817
oil_11	1.8589***	1.349***
oil_12	1.7423***	1.2697***
ppi_input	10.927**	3.3062
ppi_input_1	-10.61*	-3.808
ppi_input_2	-1.577	-3.3182

ppi_input_3	10.93*	6.824
ppi_input_4	-2.6004	-1.811
ppi_input_5	-7.7183	0.1523
ppi_input_6	-5.0094	-0.2036
ppi_input_7	7.763	-1.3911
ppi_input_8	6.9109	4.7409
ppi_input_9	-2.6353	-2.212
ppi_input_10	-3.1832	-2.7934
ppi_input_11	7.8616	5.1888
ppi_input_12	-6.3256	-3.7112
ppi_output	-9.7069	1.3409
ppi_output_1	8.0039	-3.904
ppi_output_2	-1.7913	6.8927
ppi_output_3	-2.0318	-6.1889
ppi_output_4	-5.7074	-7.0827
ppi_output_5	12.558	6.9272
ppi_output_6	-0.3279	-2.2604
ppi_output_7	2.8544	7.6724
ppi_output_8	-13.97	-7.4913
ppi_output_9	12.596	11.405
ppi_output_10	0.8285	-3.5594
ppi_output_11	-18.057*	-14.253*
ppi_output_12	10.454*	12.098**
sector_Communication	-0.3639	70.1
sector_Energy	-51.004	12.781
sector_Housing	-11.426	42.709
sector_Miscellaneous	16.512	-35.432
sector_Non_Alcoholic_Beverage	-17.559	63.914
sector_Non_Energy	-5.5232	68.859
sector_Recreational_Personal	-26.217	57.3
sector_Transport_Travel	-24.033	28.309

Panel Regression Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		-258.26	-105	-1.4117	-0.2341
R_1		1.9493	-0.8148	0.0223*	0.022*
R_2		2.1975	0.7198	0.0404***	0.0381***
R_3		-1.0928	-2.7269	0.0063	0.0061
R_4		-11.089***	-9.7728***	-0.0039	0.003
R_5		1.5012	3.1545	0.0421***	0.0358***

R_6	-1.5418	1.7504	-0.0786***	-0.0666***
R_7	4.0378	3.7675	0.0865***	0.0672***
R_8	-1.6733	-2.3028	-0.0209*	-0.0221**
R_9	-3.1778	-3.8305	0.0069	0.0052
R_10	-0.6881	-0.5969	-0.0429***	-0.0395***
R_11	1.0455	-0.1558	0.0068	0.0063
R_12	7.9622***	7.7508***	-0.0176	-0.0214**
dummy_D	180.47***	196.16***	-8.1844***	-8.8943***
dummy_SD	-13.047	-35.202	15.463***	12.123***
dummy_increase	76.253***	79.142***	19.916***	20.733***
dummy_independent	-24.087*	9.498	2.0614***	2.4908***
dummy_nine_ending	14.045	79.037***	1.8063***	1.2321***
dummy_zero_ending	51.366***	98.657***	6.9175***	5.9387***
expenditure_Alcoholic	-0.057	-0.1736*	0.0001	0.0004
expenditure_Communication	-0.0163	0.0889	-0.0102***	-0.0084***
expenditure_Energy	0.0214	-0.0115	0.0006***	0.0004***
expenditure_Housing_services	-0.2231	0.2178	0.0085***	0.0126***
expenditure_Miscellaneous_services	0.0508*	-0.0036	0.0008***	0.0006***
expenditure_Non_energy_goods	0.0082	0.02	0.0007***	0.0002
expenditure_Recreational_personal_services	-0.0017	-0.0009	-3.8E-05	-9.2E-05
expenditure_Transport_travel_services	-0.0363	-0.0204	-0.0006***	-6.9E-06
inflation_1	-39.415	56.627	-38.564***	-33.545***
inflation_2	-104.26	-19.325	16.045***	10.61**
inflation_3	-232.54***	-133.61*	3.1615	2.0225
inflation_4	68.685	21.696	30.421***	27.849***
inflation_5	-2409.9**	-158.25*	42.595***	33.527***
inflation_6	43.594	-59.342	-8.3886*	-3.7524
inflation_7	-81.586	-118.26	-5.7733	-0.5055
inflation_8	-46.744	-78.854	-21.158***	-18.458***
inflation_9	132.96*	74.943	12.094***	11.831**
inflation_10	90.174	22.025	13.316***	6.7527
inflation_11	74.928	134.08**	15.552***	7.1366
inflation_12	-2.3926	22.644	12.347***	7.9935*
location_East_Anglia	-25.462	-91.69	-7.5084***	-4.7194***
location_East_Midlands	-41.545	-46.921	-8.1656***	-5.1956***
location_NI	-2.7249	-34.65	-13.132***	-8.2534***
location_NW	-45.305*	-98.935	-7.9176***	-4.547***
location_North	-57.06*	-108.9	-12.626***	-7.9124***
location_SE	44.562**	86.044	-2.5953***	-1.3192***
location_SW	-46.343*	-100.92	-10.39***	-6.7555***
location_Scotland	-30.652	-68.361	-7.8442***	-5.3728***
location_Wales	-55.513*	-106.14	-13.116***	-8.773***
location_West_Midlands	-33.108	-74.633	-8.9704***	-5.5143***

location_Yorks_Humber	-33.523	-66.654	-7.178***	-4.1944***
market_share	9.0188***	61.712***	2.1611***	2.7532***
month_APR	-60.106	-67.481	5.8651***	3.3113***
month_AUG	174.12	91.005	8.1642***	3.8081***
month_DEC	-108.8	91.131	5.5654***	3.9451***
month_FEB	-66.545	20.211	0.8123	-0.1439
month_JUL	250.4	93.222	5.4181***	1.6297**
month_JUN	-35.686	-12.055	10.169***	5.3615***
month_MAR	-29.441	-14.259	8.5816***	5.1716***
month_MAY	237.92*	96.178	10.183***	6.2475***
month_NOV	94.783	128.45	7.9464***	6.4604***
month_OCT	76.771	146.34	10.306***	7.8845***
month_SEP	28.67	39.897	7.2849***	3.8944***
oil	-102.13	-131.7	8.2272***	5.8782***
oil_1	0.8302	-0.7072	0.0291**	0.0228*
oil_2	5.5585***	1.3105	0.1171***	0.0941***
oil_3	4.8939***	0.8387	0.074***	0.0571***
oil_4	4.4008**	2.4763	0.0572***	0.0354***
oil_5	4.801***	1.84	-0.0148	-0.0172
oil_6	3.4733**	2.1711	0.0513***	0.0266*
oil_7	4.3462**	3.1449**	-0.0377***	-0.0495***
oil_8	2.0388	0.9933	-0.0196	-0.0433***
oil_9	1.0436	-0.8203	0.0892***	0.0642***
oil_10	3.5085*	3.4189**	-0.005	-0.0108
oil_11	5.9392***	3.8312**	0.0911***	0.0758***
oil_12	6.1075***	5.0152***	-0.0118	-0.0105
ppi_input	28.677	26.86	-0.9093***	-0.8259***
ppi_input_1	-19.352	-13.374	-0.2262	-0.2101
ppi_input_2	-21.142	-19.905	0.1186	0.1536
ppi_input_3	35.906*	33.075*	0.1579	0.1552
ppi_input_4	-31.415	-27.941*	0.3502**	0.3105**
ppi_input_5	25.583	22.207	0.3322*	0.1561
ppi_input_6	1.7738	14.745	-0.7974***	-0.5619***
ppi_input_7	-25.921	-37.878**	-0.1438	-0.1995
ppi_input_8	24.669	18.971	0.8212***	0.6705***
ppi_input_9	-7.2965	-6.5042	-0.4486***	-0.3475**
ppi_input_10	-26.516	-13.722	0.5186***	0.5624***
ppi_input_11	28.772	13.961	-0.8528***	-0.731***
ppi_input_12	-0.5095	1.9936	-0.0461	-0.1266
ppi_output	-98.606***	-57.096**	0.2957	0.2583
ppi_output_1	24.902	3.8354	1.6177***	1.3181***
ppi_output_2	-10.021	1.8176	-2.3137***	-1.8176***
ppi_output_3	16.602	-7.9875	0.8231***	0.6358**

ppi_output_4	-10.441	-15.1	0.449	0.3311
ppi_output_5	8.4735	3.715	-2.2061***	-1.677***
ppi_output_6	-12.139	6.0598	2.7222***	2.2149***
ppi_output_7	33.829	22.794	-0.6701**	-0.6359**
ppi_output_8	-27.344	-10.262	-0.7896**	-0.4058
ppi_output_9	29.463	16.751	0.819***	0.3457
ppi_output_10	-41.232	-27.285	-0.9076***	-0.7424**
ppi_output_11	22.617	-0.4024	1.0707***	1.0323***
ppi_output_12	-6.3238	11.174	-0.3249*	-0.3001*
sector_Communication	-19.686	41.068	-7.297***	-4.6716***
sector_Energy	-6.2964	25.012	7.08***	10.218***
sector_Housing	-69.436	-35.892	-29.071***	-25.705***
sector_Miscellaneous	-35.238	-11.393	11.715***	8.6219***
sector_Non_Alcoholic_Beverage	0.3827	-71.933	20.589***	17.773***
sector_Non_Energy	-11.934	37.877	2.9652***	4.0993***
sector_Recreational_Personal	-40.593	21.54	-10.643***	-10.382***
sector_Transport_Travel	-57.586	-46.413	3.7804***	0.2207

Alcoholic beverages, tobacco, and narcotics			
with sales		full sample	
		FE	RE
R		-0.3776	0.0428
R_1		0.0474***	0.0265***
R_2		-0.0339***	-0.0166***
R_3		0.0452***	0.0361***
R_4		0.036***	0.0237***
R_5		-0.0149***	0.0184***
R_6		0.0343***	0.0099**
R_7		0.0101*	0.0062
R_8		-0.0226***	-0.0083*
R_9		0.0068	0.0004
R_10		-0.0018	0.0169***
R_11		-0.0059	-0.0028
R_12		0.0137***	-0.0099**
dummy_increase		1.7875***	3.6186***
dummy_independent		2.2796***	3.1481***
dummy_nine_ending		6.3727***	2.4963***
dummy_sales		3.4005***	3.204***
dummy_zero_ending		3.6033***	1.3839***
expenditure_Alcoholic		-0.0012***	-0.0012***
expenditure_Communication		-0.0014***	-0.0001

expenditure_Energy	0.0003***	0.0003***
expenditure_Housing_services	-0.0026***	-0.0014**
expenditure_Miscellaneous_services	-0.0002***	-0.0003***
expenditure_Non_energy_goods	0.0003***	0.0002***
expenditure_Recreational_personal_services	-0.0003***	-0.0003***
expenditure_Transport_travel_services	0.0008***	0.0007***
inflation_1	-21.73	-48.361***
inflation_2	78.519***	-16.088
inflation_3	38.684**	-0.8516
inflation_4	-46.182***	3.4885
inflation_5	111.05***	27.738*
inflation_6	-89.244***	-61.736***
inflation_7	49.23***	-12.362
inflation_8	10.034	-40.29***
inflation_9	-17.065	-47.854***
inflation_10	76.342***	52.125***
inflation_11	-15.159	39.099***
inflation_12	-28.806*	40.448***
location_East_Anglia	-0.536***	-0.5923**
location_East_Midlands	0.1309	0.1328
location_NI	-0.6144***	-0.5838
location_NW	0.8512***	0.3261
location_North	0.0691	0.2431
location_SE	0.8595***	-0.2397
location_SW	-0.3018***	-0.416
location_Scotland	0.0194	-0.4928*
location_Wales	0.2561**	0.1946
location_West_Midlands	0.0878	-0.4425
location_Yorks_Humber	0.2163**	0.3838
market_share	12.446***	61.757***
month_APR	-3.4269***	-2.6681***
month_AUG	0.4634	-1.1896***
month_DEC	0.4324	0.2526
month_FEB	-0.6326**	-1.7757***
month_JUL	-1.3988***	-1.2551***
month_JUN	0.3626	-0.2363
month_MAR	0.6297**	-1.3611***
month_MAY	-0.7629***	-0.2867
month_NOV	2.0853***	1.9424***
month_OCT	0.3671	0.1081
month_SEP	0.0243	-0.4759**
oil	0.9153**	-0.0921
oil_1	-0.0118***	-0.0088**

oil_2	-0.0018	0.0019
oil_3	0.0051	0.013***
oil_4	-0.0023	-0.001
oil_5	0.0013	0.0036
oil_6	-0.0081*	0.0183***
oil_7	-0.0191***	0.01***
oil_8	0.0049	-0.0121***
oil_9	0.0437***	0.0402***
oil_10	-0.0369***	-0.0081**
oil_11	0.0127***	0.0119***
oil_12	-0.0115**	0.009**
ppi_input	-0.5392***	-0.3853***
ppi_input_1	0.2467***	0.064
ppi_input_2	-0.1774***	-0.1121**
ppi_input_3	0.3077***	0.1678***
ppi_input_4	-0.2732***	-0.0794*
ppi_input_5	0.1452**	0.1889***
ppi_input_6	-0.1304**	-0.3183***
ppi_input_7	0.1546***	0.1443***
ppi_input_8	0.1699***	0.1539***
ppi_input_9	-0.3694***	-0.2134***
ppi_input_10	0.3376***	0.2359***
ppi_input_11	0.1167**	0.0041
ppi_input_12	-0.3661***	-0.272***
ppi_output	0.5615***	0.2272***
ppi_output_1	-0.2086*	0.4023***
ppi_output_2	-0.3242***	-0.4342***
ppi_output_3	-0.3771***	-0.4523***
ppi_output_4	1.0369***	0.6424***
ppi_output_5	-1.0007***	-0.7244***
ppi_output_6	1.0814***	0.9115***
ppi_output_7	-0.1257	-0.1626*
ppi_output_8	-1.0032***	-0.3698***
ppi_output_9	0.902***	0.4003***
ppi_output_10	-0.4581***	-0.3443***
ppi_output_11	0.062	0.2018**
ppi_output_12	0.1278**	0.0056

Alcoholic beverages Pre- and Post-crisis

with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE

R	-7.866***	-4.7856***	-1.6554**	-1.5147**
R_1	0.0948***	0.0223	0.0503***	0.0141**
R_2	0.0157	0.0327**	-0.0744***	-0.043***
R_3	0.0846***	0.0075	0.0112	0.0126**
R_4	0.2505***	0.1265***	-0.0265***	-0.0171***
R_5	-0.1198***	-0.1091***	-0.0179**	0.027***
R_6	0.2368***	0.0941***	-0.0244***	-0.0359***
R_7	-0.053**	-0.0872***	-0.0149**	-0.0105*
R_8	-0.1334***	-0.0564***	-0.02***	0.0012
R_9	-0.116***	-0.0555***	-0.0158**	-0.0217***
R_10	0.1785***	0.1331***	-0.0031	0.0153***
R_11	-0.0881***	-0.0343**	0.007	0.0054
R_12	0.0713***	0.0269*	-0.0017	-0.0278***
dummy_increase	1.0083***	3.27***	2.2679***	3.8205***
dummy_independent	1.1561***	2.6571***	4.0086***	4.0702***
dummy_nine_ending	5.6039***	2.0904***	7.0192***	2.9553***
dummy_sales	3.601***	3.4762***	3.796***	3.2378***
dummy_zero_ending	3.662***	0.5023***	3.3608***	1.5158***
expenditure_Alcoholic	-0.0021***	-0.0028***	-0.0028***	0.0004
expenditure_Communication	0.006***	0.0046***	-0.0085***	-0.0033***
expenditure_Energy	-0.0011***	-0.0002	0.0003***	-1.3E-05
expenditure_Housing_services	-0.0092***	-0.0042***	-0.0025*	-0.0088***
expenditure_Miscellaneous_services	0.0013***	0.0008***	-0.0011***	-0.0008***
expenditure_Non_energy_goods	0.0022***	0.0015***	0.002***	0.0012***
expenditure_Recreational_personal_services	-0.0025***	-0.0017***	-0.0004***	-0.0002***
expenditure_Transport_travel_services	-0.0017***	-0.001***	-0.0007***	-0.0007***
inflation_1	376.12***	143.53***	-252.63***	-227.07***
inflation_2	247.26***	-31.451	151.45***	26.25
inflation_3	143.17**	-67.816	184.11***	87.904***
inflation_4	-148.85***	-133.01***	278.61***	75.146***
inflation_5	-10.675	-102.94**	409.6***	122.76***
inflation_6	-386.97***	-296.08***	25.279	-23.595
inflation_7	303.12***	160.65***	-143.25***	-172.65***
inflation_8	122.37**	2.5148	-113.42***	-71.587***
inflation_9	227.22***	46.903	-39.951	18.51
inflation_10	53.724	-16.565	288.98***	180.5***
inflation_11	67.578	82.469**	164.77***	95.374***
inflation_12	20.01	33.905	217.85***	165.09***
location_East_Anglia	-1.8477***	-0.5727	0.215	0.2156
location_East_Midlands	-1.2689***	0.2178	0.9209***	1.0433**
location_NI	-2.4763***	-1.0977**	0.3501*	0.7367
location_NW	-0.8818***	0.3139	1.6227***	0.788**
location_North	-0.8537***	0.2305	0.6506***	0.9959*

location_SE	-0.3773***	-0.2138	1.4143***	0.6716*
location_SW	-2.3939***	-0.6545**	0.8891***	0.4187
location_Scotland	-1.6651***	-0.5952*	0.9641***	0.3534
location_Wales	-2.1022***	-0.2152	1.6406***	1.2758**
location_West_Midlands	-0.821***	-0.3827	0.4644***	0.1286
location_Yorks_Humber	-0.9687***	0.1404	0.8379***	0.9817**
market_share	-5.1591***	33.835***	18.35***	68.975***
month_APR	1.2646*	-0.098	-2.939***	-2.0736***
month_AUG	12.174***	7.6587***	0.0369	-1.636***
month_DEC	1.3564	0.8652	-1.2678***	-2.4552***
month_FEB	5.6719***	2.6363***	-5.8441***	-4.4073***
month_JUL	1.4773	2.1419**	0.7194*	-0.2608
month_JUN	4.1907***	3.5172***	2.6239***	0.1379
month_MAR	4.7437***	0.6203	1.5683***	0.4186
month_MAY	-0.5338	0.713	2.1625***	-0.1374
month_NOV	-1.0458	-0.6434	3.0007***	-0.6395
month_OCT	4.7611***	2.4257***	0.6981	-1.2746***
month_SEP	6.1439***	3.6504***	2.4819***	0.4418
oil	-1.7406*	0.1821	5.5428***	2.2616***
oil_1	-0.0293***	-0.0052	0.0264***	0.0358***
oil_2	-0.0319***	0.0151*	0.0269***	0.0331***
oil_3	-0.0771***	0.0127	0.1264***	0.0859***
oil_4	-0.047***	-0.0098	0.0613***	0.051***
oil_5	-0.0464***	0.0047	0.0307***	0.0304***
oil_6	0.004	0.0375***	0.0506***	0.0786***
oil_7	-0.0086	0.024***	0.0247***	0.0606***
oil_8	0.004	-0.0006	0.0355***	0.0186***
oil_9	0.046***	0.0255***	0.1186***	0.1036***
oil_10	0.009	0.016*	0.0683***	0.0506***
oil_11	0.0214*	0.0034	0.0633***	0.0261***
oil_12	0.0794***	0.0239**	-0.004	0.0283***
ppi_input	0.4683***	-0.1069	-0.6764***	-0.5236***
ppi_input_1	-0.6853***	-0.1573	-0.4983***	-0.253***
ppi_input_2	0.1371	-0.0389	0.1844*	0.2873***
ppi_input_3	0.1986	0.1133	1.2638***	0.6138***
ppi_input_4	-0.0378	0.1919*	-0.6359***	-0.6922***
ppi_input_5	-0.7611***	-0.4214***	-0.0717	0.2553***
ppi_input_6	0.7952***	0.3404***	-0.5977***	-0.6095***
ppi_input_7	-0.4767***	-0.2727***	0.4466***	0.1736**
ppi_input_8	0.3786***	0.3074***	0.097	0.242***
ppi_input_9	-0.7795***	-0.2604**	-0.2804***	-0.1198
ppi_input_10	0.7074***	0.1738*	0.3403***	0.0601
ppi_input_11	-0.0019	0.0514	0.1566	0.0917

ppi_input_12	0.1442	-0.0743	-0.7453***	-0.4697***
ppi_output	1.2745***	0.2199	0.6467***	0.3582***
ppi_output_1	-2.0641***	-0.2335	0.9886***	0.8263***
ppi_output_2	0.8799***	-0.2266	-0.9505***	-0.8537***
ppi_output_3	-0.2224	0.0438	-2.3208***	-1.537***
ppi_output_4	1.2478***	0.7522***	1.8597***	1.8139***
ppi_output_5	-1.4952***	-0.9133***	-0.7404***	-1.1437***
ppi_output_6	1.6741***	0.8417***	1.5963***	1.4371***
ppi_output_7	-0.5899***	-0.5571***	-0.1293	0.058
ppi_output_8	-0.8115***	-0.082	-0.6362***	-0.6568***
ppi_output_9	-0.1925	0.0076	0.6383***	0.3216**
ppi_output_10	0.7616***	0.3627**	-0.7301***	-0.1002
ppi_output_11	-1.7908***	-0.694***	0.0673	-0.0375
ppi_output_12	1.1793***	0.4796***	0.5615***	0.2776***

Alcoholic beverages, tobacco, and narcotics			
	without sales	full sample	
		FE	RE
R		1.5528***	1.9998***
R_1		0.0878***	0.0567***
R_2		-0.0068	0.0046
R_3		0.0441***	0.0357***
R_4		0.0636***	0.0431***
R_5		0.0218***	0.043***
R_6		0.0442***	0.0145***
R_7		0.0055	0.0037
R_8		-0.0043	-0.0053
R_9		0.0194***	0.0119**
R_10		0.0082	0.0203***
R_11		0.0065	0.006
R_12		0.0147***	-0.0046
dummy_increase		-0.1799***	2.0441***
dummy_independent		1.1223***	2.1063***
dummy_nine_ending		5.3292***	2.2853***
dummy_zero_ending		4.1054***	1.7236***
expenditure_Alcoholic		0.0007***	-0.0001
expenditure_Communication		-0.0023***	-0.0014***
expenditure_Energy		0.0003***	0.0004***
expenditure_Housing_services		-0.0013*	0.0012**
expenditure_Miscellaneous_services		0.0002***	-0.0001***
expenditure_Non_energy_goods		-7.7E-05	1.63E-05

expenditure_Recreational_personal_services	-0.0002***	-0.0004***
expenditure_Transport_travel_services	0.001***	0.001***
inflation_1	-59.934***	-79.242***
inflation_2	-64.282***	-122.75***
inflation_3	-4.7785	-43.94***
inflation_4	-76.594***	-23.92
inflation_5	41.374**	-25.319
inflation_6	-107.48***	-101.29***
inflation_7	21.692	-34.978**
inflation_8	-17.995	-58.186***
inflation_9	-59.793***	-77.354***
inflation_10	44.103**	55.004***
inflation_11	-142.8***	-56.925***
inflation_12	-149.64***	-47.473***
location_East_Anglia	-0.771***	-0.38
location_East_Midlands	-0.0271	0.1378
location_NI	-1.0464***	-0.4391
location_NW	0.6593***	0.1249
location_North	-0.4176***	-0.3094
location_SE	0.8936***	-0.1818
location_SW	-0.5396***	-0.3318
location_Scotland	-0.2589**	-0.3896
location_Wales	-0.0223	-0.0299
location_West_Midlands	0.0707	-0.2751
location_Yorks_Humber	0.0187	0.0761
market_share	4.878***	46.405***
month_APR	-1.8557***	-1.7364***
month_AUG	0.5167	-1.2786***
month_DEC	0.8836***	0.8479***
month_FEB	1.3536***	-0.3342
month_JUL	-1.2698***	-1.396***
month_JUN	0.0578	-0.4535
month_MAR	0.6665**	-1.2658***
month_MAY	0.1005	0.4114*
month_NOV	3.0294***	3.4516***
month_OCT	0.645**	0.6411**
month_SEP	0.1496	-0.3209
oil	-1.11**	-1.8016***
oil_1	-0.0241***	-0.015***
oil_2	-0.0129***	-0.0012
oil_3	0.0148***	0.0256***
oil_4	-0.0251***	-0.0115***
oil_5	-0.0206***	-0.0092**

oil_6	-0.0177***	0.0148***
oil_7	-0.044***	-0.0047
oil_8	-0.0185***	-0.0216***
oil_9	0.014***	0.0191***
oil_10	-0.0472***	-0.0156***
oil_11	0.0079	0.0106**
oil_12	0.0089	0.0205***
ppi_input	-0.5564***	-0.4392***
ppi_input_1	0.1435**	-0.0257
ppi_input_2	-0.1104*	-0.0807
ppi_input_3	0.0733	0.0026
ppi_input_4	-0.1405**	0.0273
ppi_input_5	0.2055***	0.2736***
ppi_input_6	-0.1281*	-0.328***
ppi_input_7	0.1373**	0.1244**
ppi_input_8	0.2451***	0.1639***
ppi_input_9	-0.2899***	-0.0985*
ppi_input_10	0.2421***	0.1067**
ppi_input_11	0.0594	0.0381
ppi_input_12	-0.4077***	-0.3859***
ppi_output	0.5221***	0.1623***
ppi_output_1	-0.085	0.5446***
ppi_output_2	-0.226*	-0.3829***
ppi_output_3	-0.1782	-0.3232***
ppi_output_4	0.9364***	0.5738***
ppi_output_5	-1.085***	-0.7789***
ppi_output_6	0.9487***	0.8622***
ppi_output_7	-0.0289	-0.081
ppi_output_8	-0.928***	-0.3215***
ppi_output_9	0.6328***	0.1962**
ppi_output_10	-0.2752**	-0.217**
ppi_output_11	0.1799	0.2862***
ppi_output_12	0.0283	-0.058

Alcoholic beverages Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		-7.523***	-5.8455***	-2.6544***	-1.1041
R_1		0.0498***	0.0002	0.1014***	0.0392***
R_2		-0.0101	0.0043	-0.0584***	-0.0279***
R_3		0.0527**	-0.0049	-0.02**	-0.012

R_4	0.2559***	0.122***	-0.0035	-0.0114
R_5	-0.13***	-0.1093***	0.0147*	0.052***
R_6	0.2143***	0.0788***	-0.017**	-0.0333***
R_7	-0.0576**	-0.0659***	-0.0366***	-0.0313***
R_8	-0.1184***	-0.0376*	-0.0123	-0.0046
R_9	-0.115***	-0.0457**	0.0035	0.002
R_10	0.1533***	0.1169***	0.0091	0.0189***
R_11	-0.0938***	-0.027	0.0185**	0.0067
R_12	0.0494**	0.0285*	-0.0182**	-0.0311***
dummy_increase	-0.7193***	1.8701***	0.1541**	2.2049***
dummy_independent	-0.0393	1.2458***	2.7308***	3.3552***
dummy_nine_ending	4.6851***	1.8758***	5.6897***	2.5992***
dummy_zero_ending	4.2188***	0.5804***	3.8178***	2.0088***
expenditure_Alcoholic	-0.0004	-0.0008	-0.0018***	0.0003
expenditure_Communication	0.0054***	0.0041***	-0.0096***	-0.0051***
expenditure_Energy	-0.001***	-0.0003**	0.0002**	-0.0001
expenditure_Housing_services	-0.0088***	-0.0044***	-0.0053***	-0.0107***
expenditure_Miscellaneous_services	0.0014***	0.001***	-0.0006***	-0.0006***
expenditure_Non_energy_goods	0.0016***	0.0011***	0.0017***	0.0013***
expenditure_Recreational_personal_services	-0.0019***	-0.0015***	-0.0002	-0.0002*
expenditure_Transport_travel_services	-0.0018***	-0.0011***	-0.0006***	-0.0008***
inflation_1	392.75***	145.41***	-222.8***	-219.66***
inflation_2	261.01***	-13.88	31.808	-60.863**
inflation_3	159.12***	-104.48**	328.47***	217.49***
inflation_4	-145.27**	-104.12**	389.27***	204.74***
inflation_5	11.103	-82.832	459.88***	179.19***
inflation_6	-342.64***	-237.56***	92.809***	6.0056
inflation_7	315.09***	187.4***	-55.761*	-81.864***
inflation_8	152.28***	40.137	34.393	26.68
inflation_9	167.92***	28.703	25.284	105.36***
inflation_10	110.99**	59.426	409.68***	341.25***
inflation_11	-0.6411	28.819	154.47***	129.67***
inflation_12	51.032	57.939	150.22***	152.13***
location_East_Anglia	-2.5145***	-0.9255**	0.3429**	0.8238**
location_East_Midlands	-1.746***	-0.0169	1.0936***	1.2713***
location_NI	-3.0511***	-1.4421***	0.2122	1.0241*
location_NW	-1.682***	-0.3634	1.9163***	1.0268***
location_North	-1.9287***	-0.7195*	0.643***	0.8936*
location_SE	-0.4462***	-0.5357*	1.5657***	0.96***
location_SW	-2.758***	-0.7493**	0.8842***	0.6376
location_Scotland	-2.0225***	-0.7276**	0.8687***	0.5709
location_Wales	-2.8557***	-0.8117*	1.8383***	1.4605***
location_West_Midlands	-1.2479***	-0.4869	0.8003***	0.6707

location_Yorks_Humber	-1.6192***	-0.585*	1.0227***	1.207***
market_share	-2.155**	35.434***	6.7695***	46.013***
month_APR	1.4526*	-0.5633	-0.8264*	-0.2485
month_AUG	12.212***	7.5236***	-1.0176*	-1.7432***
month_DEC	1.1698	0.332	-1.2033**	-2.4254***
month_FEB	6.6837***	3.239***	-3.326***	-2.6356***
month_JUL	1.647	2.288**	-0.365	-0.9776**
month_JUN	3.6681***	2.8736***	1.6398***	-0.1525
month_MAR	5.3938***	1.0686**	0.9311**	0.0555
month_MAY	-0.6043	0.7704	2.7425***	1.0283**
month_NOV	-0.5006	-0.1864	3.4919***	0.1515
month_OCT	3.6861***	1.1432*	0.7979	-0.4428
month_SEP	5.9135***	3.1005***	2.9081***	1.1382**
oil	-1.0847	1.2023	6.7343***	2.2541***
oil_1	-0.0173*	-0.0023	0.0133	0.0497***
oil_2	-0.0334***	0.0189**	0.0029	0.0336***
oil_3	-0.057***	0.0289***	0.1528***	0.1239***
oil_4	-0.0403***	-0.0125	0.0261***	0.0484***
oil_5	-0.0596***	-0.0148	-0.0226**	0.0055
oil_6	0.0098	0.0215**	0.0385***	0.0864***
oil_7	-0.0271**	0.0034	-0.0083	0.054***
oil_8	0.011	-0.0063	-0.023**	-0.0044
oil_9	0.0573***	0.0205**	0.0835***	0.0875***
oil_10	-0.0019	-0.0041	0.0383***	0.0425***
oil_11	0.0378***	0.0062	0.0405***	0.0285***
oil_12	0.0908***	0.0261**	-0.006	0.0277***
ppi_input	0.3766***	-0.1551	-0.6815***	-0.5921***
ppi_input_1	-0.736***	-0.1263	-0.8282***	-0.6453***
ppi_input_2	0.5124***	0.1218	0.2587**	0.4399***
ppi_input_3	-0.0855	-0.0927	1.2718***	0.7091***
ppi_input_4	-0.0188	0.2653**	-0.5164***	-0.6728***
ppi_input_5	-0.6775***	-0.3915***	-0.3179***	0.1202
ppi_input_6	0.4718***	0.1654	-0.4156***	-0.5375***
ppi_input_7	0.1203	0.0182	0.4305***	0.1136
ppi_input_8	-0.0693	0.0567	0.2299**	0.302***
ppi_input_9	-0.7154***	-0.1802*	-0.2277**	0.0063
ppi_input_10	0.752***	0.1518	0.3009***	0.0398
ppi_input_11	-0.1018	-0.077	0.0126	-0.0455
ppi_input_12	0.2441**	0.0644	-0.905***	-0.692***
ppi_output	1.2485***	0.3377**	0.5095***	0.2825**
ppi_output_1	-2.2387***	-0.4405**	1.4073***	1.3329***
ppi_output_2	0.8286***	-0.2436	-0.7198***	-0.9973***
ppi_output_3	0.1236	0.2979*	-2.7237***	-1.9209***

ppi_output_4	0.9837***	0.5131***	1.9695***	2.0315***
ppi_output_5	-1.1183***	-0.4164**	-0.4115*	-1.0058***
ppi_output_6	1.2577***	0.4305**	0.9771***	1.2093***
ppi_output_7	-0.5842**	-0.5183***	0.3309	0.4616**
ppi_output_8	-0.3208	0.2867*	-0.951***	-0.8855***
ppi_output_9	-0.6556***	-0.3892**	0.3514	-0.0053
ppi_output_10	1.1178***	0.7878***	-0.4907**	0.0134
ppi_output_11	-2.2722***	-1.2475***	0.1235	0.1754
ppi_output_12	1.4636***	0.7651***	0.7103***	0.389***

Food and non-alcoholic beverages			
with sales		full sample	
		FE	RE
R		-0.5566	0.4039
R_1		0.0474***	0.0342***
R_2		0.041***	0.0266***
R_3		0.0164*	0.0037
R_4		0.0743***	0.0501***
R_5		-0.0037	0.0006
R_6		-0.001	-0.0074
R_7		0.0214**	0.001
R_8		0.0029	-0.0074
R_9		0.0305***	0.0169**
R_10		-0.013	0.0025
R_11		-0.0158*	-0.0094
R_12		-0.0019	-0.0103
dummy_increase		10.96***	10.531***
dummy_independent		-2.6731***	-0.4396*
dummy_nine_ending		3.7615***	2.331***
dummy_sales		7.8336***	7.2862***
dummy_zero_ending		4.2223***	2.5722***
expenditure_Alcoholic		0.0056***	0.0028***
expenditure_Communication		-0.0089***	-0.0061***
expenditure_Energy		0.0001*	6.81E-05
expenditure_Housing_services		0.0062***	0.0068***
expenditure_Miscellaneous_services		0.0004***	0.0002**
expenditure_Non_energy_goods		0.0006***	0.0002***
expenditure_Recreational_personal_services		-0.0005***	-0.0003***
expenditure_Transport_travel_services		-0.0004***	2.79E-05
inflation_1		-23.411	-35.133
inflation_2		-104.2***	-51.918*

inflation_3	-152.26***	-98.627***
inflation_4	-189.07***	-106.77***
inflation_5	-149.19***	-130.52***
inflation_6	-296.08***	-174.38***
inflation_7	-172.14***	-138.45***
inflation_8	-54.602**	-31.061
inflation_9	-66.743**	-108.5***
inflation_10	-98.273***	-90.191***
inflation_11	-175.29***	-126.88***
inflation_12	-165.47***	-74.926***
location_East_Anglia	-2.3467***	-0.0573
location_East_Midlands	-2.329***	0.6837
location_NI	-2.3456***	0.6232
location_NW	-0.0284	1.8626***
location_North	-2.3837***	1.2072*
location_SE	-1.1489***	0.8471*
location_SW	-1.6546***	0.9637*
location_Scotland	-1.8738***	0.1162
location_Wales	-2.6254***	0.1446
location_West_Midlands	-1.244***	2.2995***
location_Yorks_Humber	-1.552***	1.0756**
market_share	24.435***	249.88***
month_APR	1.4736***	-0.5401
month_AUG	3.9266***	-0.0586
month_DEC	0.5061	-0.1265
month_FEB	2.8661***	1.1095**
month_JUL	2.3258***	0.2718
month_JUN	3.1998***	0.7347
month_MAR	2.0837***	0.1366
month_MAY	2.094***	0.6692
month_NOV	0.0745	0.3678
month_OCT	2.5047***	0.8707*
month_SEP	2.5703***	0.892**
oil	-0.6497	-0.4737
oil_1	-0.0258***	-0.0236***
oil_2	-0.0063	-0.0174**
oil_3	-0.0151**	-0.0138**
oil_4	-0.007	-0.0103
oil_5	-0.0302***	-0.0241***
oil_6	0.02***	0.0192***
oil_7	-0.0345***	-0.017**
oil_8	0.0179**	0.0081
oil_9	-0.0137*	-0.0122*

oil_10	-0.0403***	-0.0323***
oil_11	-0.004	-0.0066
oil_12	0.054***	0.0394***
ppi_input	0.0523	-0.0101
ppi_input_1	-0.0971	0.0864
ppi_input_2	-0.4245***	-0.3941***
ppi_input_3	0.2181**	0.2007**
ppi_input_4	0.048	0.075
ppi_input_5	-0.0781	-0.101
ppi_input_6	-0.0761	-0.1136
ppi_input_7	0.1354	0.0841
ppi_input_8	-0.0944	-0.0494
ppi_input_9	0.0039	0.0444
ppi_input_10	0.1952*	0.1661*
ppi_input_11	0.1472	0.0867
ppi_input_12	-0.2602***	-0.1912***
ppi_output	0.0518	-0.0029
ppi_output_1	0.1878	0.1049
ppi_output_2	0.0554	0.2023
ppi_output_3	-0.1352	-0.2807
ppi_output_4	0.2031	0.0652
ppi_output_5	-0.4354**	-0.2115
ppi_output_6	0.7253***	0.5065***
ppi_output_7	-0.0938	-0.1232
ppi_output_8	-0.7417***	-0.2637
ppi_output_9	0.4521**	0.0369
ppi_output_10	0.0834	0.1954
ppi_output_11	-0.081	-0.0854
ppi_output_12	-0.2471**	-0.2167**

Food and non-alcoholic beverages Pre- and Post-crisis					
	with sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		-7.5082*	-4.7988	-2.2321**	-1.3984
R_1		0.116***	0.0918**	0.0152	0.0069
R_2		-0.1**	-0.0834*	0.0216**	0.0248***
R_3		-0.0246	-0.0093	0.0493***	0.0239***
R_4		0.0614	0.0379	0.0412***	0.0375***
R_5		-0.0207	-0.0409	-0.0047	-0.0098
R_6		0.0714	0.0465	-0.0301***	-0.0235***
R_7		0.0466	-0.0003	0.0252***	0.0113

R_8	0.1624***	0.1145**	-0.0124	-0.0168**
R_9	0.1093**	0.0267	0.008	0.0025
R_10	0.1781***	0.1315***	-0.0204**	-0.0097
R_11	0.0592	0.0179	-0.0075	0.0004
R_12	0.0721*	0.0717*	-0.0007	-0.0078
dummy_increase	8.7307***	9.1756***	12.426***	12.086***
dummy_independent	-3.1408***	-1.7356***	-2.4242***	-1.003***
dummy_nine_ending	3.6478***	2.2454***	3.6467***	2.4346***
dummy_sales	8.5079***	7.6209***	7.4752***	6.0124***
dummy_zero_ending	3.2916***	2.2864***	4.5208***	3.0362***
expenditure_Alcoholic	0.0089***	0.005***	-0.0018***	-0.002***
expenditure_Communication	-0.0042*	-0.0034	-0.0096***	-0.0071***
expenditure_Energy	-0.0012***	-0.0012***	0.0005***	0.0003***
expenditure_Housing_services	-0.0169***	-0.0115***	0.0049***	0.0074***
expenditure_Miscellaneous_services	0.0016***	0.0014***	6.27E-05	1.76E-05
expenditure_Non_energy_goods	0.001	0.0012	0.0017***	0.001***
expenditure_Recreational_personal_services	-0.0022**	-0.0024***	-0.0001	-1.8E-05
expenditure_Transport_travel_services	0.0001	0.0005	-0.0015***	-0.0009***
inflation_1	-58.891	-0.81	-151.8***	-110.87***
inflation_2	72.146	93.979	56.56	81.184**
inflation_3	85.214	45.109	137.72***	127.57***
inflation_4	-61.394	-88.774	219.51***	190.3***
inflation_5	-192.82	-182.34	340.8***	242.65***
inflation_6	20.81	-40.774	-37.239	-0.0637
inflation_7	99.448	-35.873	-130.96***	-85.021**
inflation_8	136	67.654	3.7593	31.332
inflation_9	241.71**	142.15	160.74***	111.52***
inflation_10	171.8	110.75	371.8***	256.87***
inflation_11	62.424	-2.0471	262.93***	218.9***
inflation_12	-20.367	-79.855	351.61***	271.02***
location_East_Anglia	-1.1622***	-0.6781	-3.3317***	-1.6102***
location_East_Midlands	-1.8266***	-0.7742	-2.9255***	-0.6133*
location_NI	-0.6406	0.4299	-3.8477***	-1.5519***
location_NW	0.2562	0.4268	-0.5784***	0.5114
location_North	-1.2288***	0.1471	-3.4714***	-0.9058**
location_SE	-0.3641	-0.0633	-2.073***	-0.9293***
location_SW	-0.9205**	-0.3491	-2.5143***	-0.4504
location_Scotland	-0.7611**	-0.1185	-2.9496***	-1.9492***
location_Wales	-1.8236***	-0.6632	-3.4173***	-1.7356***
location_West_Midlands	0.6435*	2.2519***	-3.2676***	-1.1289***
location_Yorks_Humber	-0.6912*	0.0927	-2.4267***	-0.6627*
market_share	-5.9238**	81.454***	36.892***	164.45***
month_APR	2.3534	2.2515	3.543***	1.6682***

month_AUG	1.4408	0.6647	5.3672***	1.8769***
month_DEC	-0.8318	0.6628	-0.3783	0.1269
month_FEB	-0.9606	0.1397	-3.1805***	-2.4783***
month_JUL	1.562	0.7816	5.8142***	3.0904***
month_JUN	1.2153	1.0489	7.6094***	4.4065***
month_MAR	0.8	1.5316	2.7468***	1.3266***
month_MAY	3.4217**	3.2877**	6.1462***	3.756***
month_NOV	-1.2347	1.2211	1.819***	1.6819***
month_OCT	2.4916	3.1765**	4.9545***	3.3761***
month_SEP	2.4805	2.9804	5.2002***	3.0208***
oil	-3.4548	-3.5053	2.9884***	2.5712**
oil_1	0.0269	0.0219	-0.0412***	-0.0355***
oil_2	-0.0226	-0.0224	0.0856***	0.0484***
oil_3	0.0225	0.0324	-0.0061	-0.0065
oil_4	0.0269	0.0325	-0.0305***	-0.0321***
oil_5	-0.0064	-0.0094	0.0266**	0.0183*
oil_6	0.0279	0.0351	0.0346***	0.0326***
oil_7	-0.0279	-0.0037	-0.0118	-0.0093
oil_8	0.0163	0.0266	0.0697***	0.0456***
oil_9	-0.0071	-0.0017	0.0523***	0.0337***
oil_10	-0.0286	-0.0164	-0.0317***	-0.0324***
oil_11	0.001	0.014	0.0229**	0.0117
oil_12	0.0704**	0.082***	0.0037	-0.0007
ppi_input	0.5762**	0.6129**	-0.6818***	-0.4567***
ppi_input_1	-0.3569	-0.4384	0.0312	0.0302
ppi_input_2	-0.1417	-0.1564	0.3047**	0.2334*
ppi_input_3	-0.3822	-0.329	-0.2164	-0.1559
ppi_input_4	0.272	0.3673	-0.1257	-0.1036
ppi_input_5	0.0105	0.1469	0.563***	0.3306**
ppi_input_6	-0.2036	-0.3307	-0.5687***	-0.3152**
ppi_input_7	-0.2214	-0.0964	-0.3905***	-0.3877***
ppi_input_8	-0.1229	-0.255	0.7645***	0.652***
ppi_input_9	-0.0964	0.0448	-0.0207	-0.0225
ppi_input_10	0.2509	0.1608	-0.1224	-0.0368
ppi_input_11	0.5872**	0.464*	-0.1457	-0.2903**
ppi_input_12	-0.0099	-0.0419	-0.2962***	-0.0959
ppi_output	-1.2265***	-0.9694**	1.0382***	0.6096***
ppi_output_1	0.7812	0.4854	0.5914**	0.5813**
ppi_output_2	0.1749	0.1553	-2.3383***	-1.6697***
ppi_output_3	-0.1748	-0.5106	1.0436***	0.576**
ppi_output_4	0.2123	0.1809	0.5376**	0.4491*
ppi_output_5	-0.0408	-0.1138	-2.4045***	-1.6204***
ppi_output_6	1.4049***	1.3937***	2.1489***	1.3316***

ppi_output_7	-0.6071	-0.6668	0.5862**	0.5581**
ppi_output_8	-0.003	0.3415	-1.9838***	-1.4172***
ppi_output_9	-0.6088	-0.8192*	1.1298***	0.6773***
ppi_output_10	0.3339	0.332	0.1816	0.2932
ppi_output_11	-0.1318	-0.0425	-0.2725	-0.1787
ppi_output_12	-0.3655	-0.2282	0.1609	0.0277

Food and non-alcoholic beverages			
	without sales	full sample	
		FE	RE
R		0.7817	1.7903**
R_1		0.0687***	0.0551***
R_2		0.0628***	0.0558***
R_3		0.0232**	0.0107
R_4		0.098***	0.0761***
R_5		0.0228**	0.0253**
R_6		0.0166	0.0074
R_7		0.0363***	0.0219**
R_8		0.0037	-0.009
R_9		0.0389***	0.029***
R_10		-0.0035	0.0073
R_11		0.0008	0.0077
R_12		-0.011	-0.0162*
dummy_increase		8.0587***	8.1341***
dummy_independent		-4.6628***	-2.4651***
dummy_nine_ending		3.1772***	2.0331***
dummy_zero_ending		4.2395***	2.8684***
expenditure_Alcoholic		0.0075***	0.0044***
expenditure_Communication		-0.0096***	-0.0074***
expenditure_Energy		0.0002**	0.0001*
expenditure_Housing_services		0.0103***	0.0111***
expenditure_Miscellaneous_services		0.0007***	0.0004***
expenditure_Non_energy_goods		0.0004***	0.0002*
expenditure_Recreational_personal_services		-0.001***	-0.0008***
expenditure_Transport_travel_services		0.0002	0.0005***
inflation_1		-54.443	-52.996*
inflation_2		-186.9***	-138.15***
inflation_3		-233.26***	-181.96***
inflation_4		-278.7***	-203.46***
inflation_5		-270.5***	-243***
inflation_6		-348.85***	-232.22***

inflation_7	-249.06***	-217.25***
inflation_8	-108.71***	-86.542***
inflation_9	-111.77***	-147.36***
inflation_10	-131.42***	-110.91***
inflation_11	-239.67***	-199.36***
inflation_12	-233.67***	-141.37***
location_East_Anglia	-2.9311***	-0.6702
location_East_Midlands	-2.8492***	0.1189
location_NI	-3.3811***	-0.4802
location_NW	-0.3532*	1.2536**
location_North	-2.9958***	0.6166
location_SE	-1.3629***	0.2934
location_SW	-2.1378***	0.2817
location_Scotland	-2.2611***	-0.4811
location_Wales	-3.216***	-0.277
location_West_Midlands	-1.4522***	1.7939***
location_Yorks_Humber	-1.8216***	0.5251
market_share	26.225***	232.43***
month_APR	1.3437**	-0.5125
month_AUG	3.5599***	0.0992
month_DEC	1.0276*	0.2938
month_FEB	2.8414***	1.2336**
month_JUL	2.2946***	0.5702
month_JUN	2.9877***	0.7049
month_MAR	1.5007***	-0.2907
month_MAY	2.5357***	1.1407**
month_NOV	1.6688***	1.9567***
month_OCT	2.9029***	1.4126***
month_SEP	2.9088***	1.3312***
oil	-0.996	-0.6664
oil_1	-0.0375***	-0.0321***
oil_2	-0.0239***	-0.03***
oil_3	-0.0165*	-0.0113
oil_4	-0.0261***	-0.0236***
oil_5	-0.0511***	-0.0427***
oil_6	0.0054	0.0074
oil_7	-0.0455***	-0.0306***
oil_8	-0.0053	-0.0113
oil_9	-0.0337***	-0.028***
oil_10	-0.0513***	-0.0442***
oil_11	-0.0072	-0.0102
oil_12	0.0621***	0.0524***
ppi_input	-0.1029	-0.1814**

ppi_input_1	-0.0091	0.1269
ppi_input_2	-0.4467***	-0.4185***
ppi_input_3	0.1271	0.1339
ppi_input_4	0.1189	0.1294
ppi_input_5	-0.0252	-0.0299
ppi_input_6	-0.1754	-0.2002*
ppi_input_7	0.1958	0.1624
ppi_input_8	-0.1172	-0.1169
ppi_input_9	0.1387	0.1789*
ppi_input_10	0.1052	0.0723
ppi_input_11	0.1025	0.0942
ppi_input_12	-0.3886***	-0.3781***
ppi_output	0.3615***	0.3707***
ppi_output_1	-0.0766	-0.1983
ppi_output_2	0.2786	0.4352**
ppi_output_3	-0.16	-0.3173
ppi_output_4	0.1985	0.1231
ppi_output_5	-0.2988	-0.1497
ppi_output_6	0.5877***	0.3745*
ppi_output_7	-0.0318	0.0405
ppi_output_8	-0.6824***	-0.3168
ppi_output_9	0.1402	-0.2084
ppi_output_10	0.3145	0.4779**
ppi_output_11	-0.1229	-0.2301
ppi_output_12	-0.1172	-0.0385

Food and non-alcoholic beverages Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-6.0915	-4.4255	-1.5962	-0.6481
R_1	0.098**	0.0676	0.0124	0.0097
R_2	-0.0871*	-0.0635	0.0481***	0.0511***
R_3	0.0062	0.0195	0.0345***	0.0164
R_4	0.0757	0.0561	0.059***	0.0546***
R_5	-0.0274	-0.0551	0.0078	0.0028
R_6	0.0583	0.0278	-0.0107	-0.0087
R_7	0.0431	-0.0062	0.0234**	0.0127
R_8	0.1852***	0.14**	-0.001	-0.0067
R_9	0.1089*	0.0325	0.0175*	0.0159
R_10	0.1796***	0.1304***	-0.0175*	-0.0111
R_11	0.0497	0.0127	0.0185*	0.0253***

R_12	0.0853*	0.0718	-0.0146	-0.0195*
dummy_increase	6.3669***	7.1029***	9.1599***	9.4433***
dummy_independent	-4.8931***	-3.8201***	-4.7817***	-3.5885***
dummy_nine_ending	3.5931***	2.2869***	2.5437***	1.8805***
dummy_zero_ending	3.3691***	2.4328***	4.3829***	3.3939***
expenditure_Alcoholic	0.011***	0.0065***	0.0009	0.0005
expenditure_Communication	-0.003	-0.0015	-0.0132***	-0.0114***
expenditure_Energy	-0.0012***	-0.0013***	0.0005***	0.0003**
expenditure_Housing_services	-0.0163***	-0.0116**	0.0042**	0.0067***
expenditure_Miscellaneous_services	0.0019***	0.0017***	0.0003***	0.0002*
expenditure_Non_energy_goods	9.92E-05	0.0008	0.0019***	0.0015***
expenditure_Recreational_personal_services	-0.0019*	-0.0024**	-0.0008***	-0.0007***
expenditure_Transport_travel_services	0.0007	0.0006	-0.0012***	-0.0008***
inflation_1	56.919	101.3	-177.86***	-139.61***
inflation_2	137.61	151.17	-18.794	-3.4428
inflation_3	103.9	49.666	190.07***	167.67***
inflation_4	-75.653	-140.12	229.14***	207.84***
inflation_5	-129.5	-152.75	253.37***	184.27***
inflation_6	34.392	-26.056	-4.3446	27.606
inflation_7	125.45	-41.637	-133.65***	-93.182**
inflation_8	149.3	68.413	-26.608	7.6426
inflation_9	290.36**	189.29	169.45***	139.35***
inflation_10	221.99*	171.48	396.62***	330.13***
inflation_11	121.15	31.797	221.76***	187.63***
inflation_12	-58.78	-117.77	302.84***	258.87***
location_East_Anglia	-1.5668***	-1.0676	-4.1131***	-2.2682***
location_East_Midlands	-2.1592***	-0.9551	-3.608***	-1.3051***
location_NI	-1.8748***	-0.6208	-4.7983***	-2.205***
location_NW	-0.2865	0.0171	-0.7724***	0.0742
location_North	-1.7086***	-0.0598	-4.2424***	-1.4958***
location_SE	-0.3986	-0.1927	-2.4422***	-1.4518***
location_SW	-1.4146***	-0.7197	-3.0475***	-0.9904***
location_Scotland	-0.8629**	-0.2655	-3.594***	-2.5085***
location_Wales	-2.0804***	-0.6923	-4.2796***	-2.2145***
location_West_Midlands	0.7041*	2.2157***	-3.8694***	-1.6808***
location_Yorks_Humber	-1.0565**	-0.3252	-2.631***	-0.8863***
market_share	-16.829***	56.748***	45.497***	136.07***
month_APR	2.7982	2.9935*	3.5546***	1.964***
month_AUG	1.3629	1.552	4.629***	1.9414***
month_DEC	1.218	2.0739	-0.4678	-0.418
month_FEB	0.2648	1.0956	-3.2104***	-2.7368***
month_JUL	0.6772	0.9526	5.4288***	3.3634***
month_JUN	1.5769	1.5252	6.4643***	3.9166***

month_MAR	1.5018	2.3853	1.4464**	0.2945
month_MAY	3.5358*	3.5659*	6.0693***	4.1771***
month_NOV	0.5968	2.2773	2.6025***	2.4976***
month_OCT	2.9403	3.5834**	5.3209***	3.8843***
month_SEP	2.7789	3.7939	4.9966***	3.3122***
oil	-3.0644	-3.3068	2.515*	2.3398*
oil_1	0.0171	0.0151	-0.04***	-0.0319***
oil_2	-0.0467*	-0.0408	0.0684***	0.0445***
oil_3	0.015	0.0327	0.0032	0.0102
oil_4	0.0186	0.0297	-0.0658***	-0.0567***
oil_5	-0.0261	-0.0308	-0.028**	-0.023*
oil_6	0.017	0.0237	0.0229	0.0264**
oil_7	-0.0311	-0.0113	-0.0301**	-0.0279**
oil_8	0.0224	0.0267	0.0128	-0.0004
oil_9	-0.0076	-0.0058	0.0126	0.0033
oil_10	-0.0347	-0.0285	-0.0319***	-0.0304***
oil_11	-0.0011	0.0126	-0.0028	-0.0085
oil_12	0.0793**	0.0883***	0.0184	0.0189
ppi_input	0.6573**	0.686**	-0.6574***	-0.538***
ppi_input_1	-0.2994	-0.3692	-0.3321**	-0.3249**
ppi_input_2	-0.0293	-0.0783	0.3978**	0.3424**
ppi_input_3	-0.5951*	-0.5868*	-0.0171	0.069
ppi_input_4	0.2767	0.4011	-0.0868	-0.1203
ppi_input_5	-0.0165	0.1786	0.2813*	0.1457
ppi_input_6	-0.2902	-0.423	-0.3492**	-0.1994
ppi_input_7	-0.0816	0.033	-0.4836***	-0.4497***
ppi_input_8	-0.2899	-0.4268	0.6065***	0.4606***
ppi_input_9	0.0308	0.1359	0.2627*	0.2521*
ppi_input_10	0.1914	0.1273	0.1085	0.153
ppi_input_11	0.6489**	0.5208*	-0.5907***	-0.5857***
ppi_input_12	-0.0487	-0.1076	-0.4265***	-0.3561***
ppi_output	-1.2088***	-0.9593**	1.3865***	1.1336***
ppi_output_1	0.6092	0.3462	0.5525*	0.4719*
ppi_output_2	0.2548	0.2664	-1.964***	-1.4513***
ppi_output_3	-0.247	-0.623	0.2899	-0.0679
ppi_output_4	0.4429	0.4502	0.8363***	0.7987***
ppi_output_5	0.0465	-0.0983	-1.8381***	-1.3165***
ppi_output_6	1.4245***	1.4476***	1.3717***	0.8231***
ppi_output_7	-0.8215	-0.7868	1.0438***	1.085***
ppi_output_8	0.4214	0.7316	-1.9036***	-1.4791***
ppi_output_9	-1.1857**	-1.364***	0.5665*	0.2096
ppi_output_10	0.5911	0.5737	0.1343	0.2934
ppi_output_11	-0.4946	-0.2692	0.1798	0.0708

ppi_output_12	-0.0217	0.0045	0.2127	0.2245
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Energy Goods			
	with sales	full sample	
		FE	RE
R		2.7455***	2.7451***
R_1		-0.0391***	-0.0395***
R_2		0.0002	0.0007
R_3		-0.0393***	-0.0392***
R_4		0.0196**	0.0196**
R_5		-0.044***	-0.0435***
R_6		0.0492***	0.049***
R_7		-0.1006***	-0.1005***
R_8		0.0097	0.0102
R_9		0.0637***	0.0641***
R_10		-0.0595***	-0.0599***
R_11		0.0185*	0.0181*
R_12		-0.0025	-0.0021
dummy_increase		1.3357***	1.336***
dummy_independent		-0.085	-0.0848
dummy_nine_ending		-0.314	-0.3137
dummy_sales		0.635*	0.635*
dummy_zero_ending		0.3451***	0.3455***
expenditure_Alcoholic		0.0026***	0.0027***
expenditure_Communication		-0.0022***	-0.0017***
expenditure_Energy		2.7E-05	0.000227
expenditure_Housing_services		-0.0066***	-0.0064***
expenditure_Miscellaneous_services		0.0008***	0.0012***
expenditure_Non_energy_goods		0.0006***	0.0004***
expenditure_Recreational_personal_services		2.28E-05	-7.7E-05
expenditure_Transport_travel_services		-0.0019***	-0.0015***
inflation_1		159.49***	159.4897***
inflation_2		-429.01***	-429.0098***
inflation_3		-250.84***	-250.8401***
inflation_4		-66.227**	-66.2271**
inflation_5		54.718*	54.718*
inflation_6		73.688***	73.688***
inflation_7		29.393	29.393
inflation_8		-140.95***	-140.9498***
inflation_9		-25.972	-25.9725
inflation_10		-31.222	-31.2215

inflation_11	79.118***	79.1179***
inflation_12	-216.14***	-216.1401***
location_East_Anglia	0.0159	0.0154
location_East_Midlands	0.7499***	0.7498***
location_NI	-0.9702***	-0.9705***
location_NW	-0.0276	-0.0279
location_North	0.9252***	0.9253***
location_SE	0.6152***	0.6153***
location_SW	0.5031***	0.503***
location_Scotland	0.0781	0.0778
location_Wales	-0.24	-0.2405
location_West_Midlands	0.3846**	0.385**
location_Yorks_Humber	0.14	0.1399
market_share	-0.0301	-0.0304
month_APR	4.584***	4.584***
month_AUG	8.4614***	8.4613***
month_DEC	3.9156***	3.9159***
month_FEB	7.0381***	7.0383***
month_JUL	5.4563***	5.4566***
month_JUN	6.3199***	6.3203***
month_MAR	1.0229**	1.0234**
month_MAY	4.7062***	4.706***
month_NOV	-1.9381***	-1.9386***
month_OCT	1.2878***	1.2873***
month_SEP	0.8827*	0.8824*
oil	-8.0068***	-8.0072***
oil_1	-0.0768***	-0.0763***
oil_2	0.0345***	0.0346***
oil_3	0.0184**	0.0189**
oil_4	0.0536***	0.054***
oil_5	0.021***	0.0212***
oil_6	-0.0277***	-0.0277***
oil_7	-0.038***	-0.0375***
oil_8	0.0321***	0.0319***
oil_9	-0.0697***	-0.0694***
oil_10	-0.0067	-0.0067
oil_11	-0.0272***	-0.0276***
oil_12	0.0156*	0.0152*
ppi_input	0.7355***	0.7358***
ppi_input_1	-0.4298***	-0.4299***
ppi_input_2	-0.3421***	-0.3426***
ppi_input_3	0.1224	0.1223
ppi_input_4	0.0527	0.0529

ppi_input_5	-0.2386**	-0.2384**
ppi_input_6	0.2595**	0.2591**
ppi_input_7	-0.2309**	-0.2305**
ppi_input_8	0.0955	0.0955
ppi_input_9	0.356***	0.3558***
ppi_input_10	-0.3723***	-0.3718***
ppi_input_11	0.0263	0.0263
ppi_input_12	0.1373**	0.1374**
ppi_output	0.0837	0.0835
ppi_output_1	-0.3257*	-0.3262*
ppi_output_2	1.2978***	1.298***
ppi_output_3	-0.1894	-0.189
ppi_output_4	-1.0722***	-1.0727***
ppi_output_5	1.4107***	1.4104***
ppi_output_6	-1.7557***	-1.7552***
ppi_output_7	0.8463***	0.846***
ppi_output_8	-0.6391***	-0.6388***
ppi_output_9	0.8634***	0.8638***
ppi_output_10	-0.3946**	-0.3948**
ppi_output_11	0.6561***	0.6558***
ppi_output_12	-0.466***	-0.4658***

Energy goods Pre- and Post-crisis					
	with sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		3.7972	3.7972	6.6578***	5.7236***
R_1		-0.1983***	-0.1983***	-0.0618***	-0.0626***
R_2		-0.2843***	-0.2843***	0.0329***	0.0322***
R_3		0.1089**	0.1089**	0.0196*	0.0105
R_4		0.0592	0.0592	-0.005	-0.0109
R_5		0.4632***	0.4632***	0.02**	0.0109
R_6		-0.0938*	-0.0938*	0.0504***	0.0383***
R_7		0.1029**	0.1029**	-0.0735***	-0.0764***
R_8		-0.3788***	-0.3788***	0.0078	0.007
R_9		0.5315***	0.5315***	0.087***	0.0818***
R_10		-0.5096***	-0.5096***	-0.0611***	-0.0539***
R_11		0.1807***	0.1807***	-0.0016	-0.001
R_12		-0.2652***	-0.2652***	0.0585***	0.0604***
dummy_increase		1.1713***	1.1713***	0.8276***	0.8668***
dummy_independent		-0.4352**	-0.4352**	-0.0993	-0.8899**
dummy_nine_ending		-0.0011	-0.0011	-0.2377	-0.3522*

dummy_sales	0.4073	0.4073	0.8072	-0.3702
dummy_zero_ending	0.1008	0.1008	0.4641***	0.2415**
expenditure_Alcoholic	0.0022	0.0022	-0.0028***	-0.0033***
expenditure_Communication	0.0002	0.0002	-0.0012*	-0.0022***
expenditure_Energy	-0.0013***	-0.0013***	0.0012***	0.001***
expenditure_Housing_services	0.0258***	0.0258***	-0.0052***	-0.0044**
expenditure_Miscellaneous_services	-0.0002	-0.0002	0.0009***	0.0005***
expenditure_Non_energy_goods	0.0002	0.0002	0.0001	0.0005***
expenditure_Recreational_personal_services	-0.0004	-0.0004	-7.3E-05	7.34E-05
expenditure_Transport_travel_services	-0.0011	-0.0011	-0.0002	-0.0007***
inflation_1	-185.81*	-185.81*	162.2***	149.41***
inflation_2	28.496	28.496	-114.81***	-117.55***
inflation_3	388.31***	388.31***	-344.98***	-355.66***
inflation_4	1143.7***	1143.7***	-42.263	-45.682
inflation_5	-26.075	-26.075	-209.3***	-205.96***
inflation_6	966.2***	966.2***	97.134**	121.37***
inflation_7	250**	250**	140.15***	140.49***
inflation_8	212.77**	212.77**	-110.65***	-88.184**
inflation_9	-304.49***	-304.49***	142.59***	177.04***
inflation_10	-216.29**	-216.29**	3.9766	38.448
inflation_11	81.201	81.201	238.54***	265.64***
inflation_12	-488.69***	-488.69***	167.87***	199.77***
location_East_Anglia	-0.4732	-0.4732	-0.3407*	-0.2233
location_East_Midlands	0.0707	0.0707	0.4305**	0.332
location_NI	-1.0473**	-1.0473**	-1.6884***	-1.6479
location_NW	-0.3825	-0.3825	-0.507***	-0.3585
location_North	1.3102***	1.3102***	-0.0922	1.8231**
location_SE	0.3091	0.3091	0.2638*	0.766
location_SW	-0.0637	-0.0637	0.3381**	0.2249
location_Scotland	-0.1158	-0.1158	-0.4608**	-0.0678
location_Wales	-0.5705	-0.5705	-0.781***	-0.4134
location_West_Midlands	-0.4843	-0.4843	0.5286**	0.48
location_Yorks_Humber	-0.473	-0.473	-0.0069	0.1142
market_share	0.1732***	0.1732***	-0.0455**	0.3636***
month_APR	1.6412	1.6412	-0.2442	-0.5343
month_AUG	-4.8617	-4.8617	8.3117***	7.6681***
month_DEC	-0.4215	-0.4215	2.9921***	2.3103***
month_FEB	4.8568***	4.8568***	-1.8507***	-1.6484**
month_JUL	-1.2614	-1.2614	6.3963***	6.0912***
month_JUN	-3.9384*	-3.9384*	3.8119***	3.3603***
month_MAR	1.7775	1.7775	-1.5038***	-1.3634***
month_MAY	6.0555***	6.0555***	5.9406***	5.394***
month_NOV	1.3994	1.3994	-1.7987**	-2.8418***

month_OCT	-1.518	-1.518	2.234***	1.5752***
month_SEP	0.0181	0.0181	0.2747	-0.2156
oil	11.763***	11.763***	-14.547***	-14.67***
oil_1	-0.0345*	-0.0345*	-0.1096***	-0.1073***
oil_2	0.0561**	0.0561**	-0.0519***	-0.0464***
oil_3	-0.0264	-0.0264	-0.1306***	-0.1167***
oil_4	0.0971***	0.0971***	-0.0413***	-0.0218**
oil_5	0.0388	0.0388	-0.0273**	-0.0151
oil_6	-0.1575***	-0.1575***	-0.0875***	-0.066***
oil_7	-0.0818***	-0.0818***	-0.0862***	-0.0805***
oil_8	0.0697**	0.0697**	-0.0237**	-0.0223**
oil_9	0.1047***	0.1047***	-0.1304***	-0.1264***
oil_10	0.1111***	0.1111***	-0.1121***	-0.1074***
oil_11	0.0399	0.0399	-0.0435***	-0.0451***
oil_12	0.1452***	0.1452***	-0.1017***	-0.0931***
ppi_input	-1.3676***	-1.3676***	1.0632***	0.9459***
ppi_input_1	0.7945**	0.7945**	-0.8141***	-0.7524***
ppi_input_2	-0.847***	-0.847***	-0.2029	-0.1819
ppi_input_3	0.6982**	0.6982**	0.1893	0.1903
ppi_input_4	-1.6058***	-1.6058***	0.2392*	0.1832
ppi_input_5	0.1909	0.1909	-0.6984***	-0.5824***
ppi_input_6	1.0882***	1.0882***	0.793***	0.6949***
ppi_input_7	-0.8237***	-0.8237***	-0.1508	-0.1508
ppi_input_8	0.764***	0.764***	0.7584***	0.7329***
ppi_input_9	-0.243	-0.243	-0.2711**	-0.2647**
ppi_input_10	1.2201***	1.2201***	-0.1546	-0.1994
ppi_input_11	-0.1631	-0.1631	-1.0517***	-0.9979***
ppi_input_12	-0.5815***	-0.5815***	0.9626***	0.9409***
ppi_output	2.0532***	2.0532***	0.7895***	0.9236***
ppi_output_1	0.4239	0.4239	-1.2224***	-1.3126***
ppi_output_2	2.5667***	2.5667***	1.6094***	1.5207***
ppi_output_3	-2.9155***	-2.9155***	0.6053**	0.6467***
ppi_output_4	-0.7677*	-0.7677*	-2.1074***	-2.0128***
ppi_output_5	1.3509***	1.3509***	2.4914***	2.2817***
ppi_output_6	-0.3532	-0.3532	-3.099***	-2.9499***
ppi_output_7	0.3243	0.3243	0.7629***	0.8298***
ppi_output_8	-0.3297	-0.3297	-1.2265***	-1.1904***
ppi_output_9	0.2832	0.2832	1.0676***	1.0297***
ppi_output_10	-1.6472***	-1.6472***	0.2632	0.305
ppi_output_11	-1.3537***	-1.3537***	0.9223***	0.8171***
ppi_output_12	1.1433***	1.1433***	-0.8553***	-0.8146***

Energy Goods		
without sales	full sample	
	FE	RE
R	2.3736***	2.3736***
R_1	-0.0393***	-0.0389***
R_2	0.0028	0.0027
R_3	-0.039***	-0.0393***
R_4	0.0198**	0.0199**
R_5	-0.0443***	-0.0443***
R_6	0.0495***	0.0491***
R_7	-0.1001***	-0.0998***
R_8	0.012	0.0116
R_9	0.0588***	0.0592***
R_10	-0.0611***	-0.0608***
R_11	0.0214**	0.0213**
R_12	-0.0063	-0.0058
dummy_increase	1.2173***	1.2172***
dummy_independent	-0.0574	-0.0573
dummy_nine_ending	-0.3207	-0.3204
dummy_zero_ending	0.3175***	0.3174***
expenditure_Alcoholic	0.0026***	0.0027***
expenditure_Communication	-0.002***	-0.002***
expenditure_Energy	5.33E-05	0.000153
expenditure_Housing_services	-0.0067***	-0.0064***
expenditure_Miscellaneous_services	0.0008***	0.0006***
expenditure_Non_energy_goods	0.0006***	0.0005***
expenditure_Recreational_personal_services	3.74E-05	0.000237
expenditure_Transport_travel_services	-0.0019***	-0.0019***
inflation_1	142.59***	142.59***
inflation_2	-419.21***	-419.2097***
inflation_3	-241.53***	-241.5304***
inflation_4	-69.003**	-69.0028**
inflation_5	56.168*	56.1682*
inflation_6	54.816*	54.8156*
inflation_7	18.328	18.3281
inflation_8	-151.62***	-151.6199***
inflation_9	-33.228	-33.228
inflation_10	-37.507	-37.5069
inflation_11	82.041***	82.0406***
inflation_12	-209.66***	-209.6598***
location_East_Anglia	0.024	0.0239
location_East_Midlands	0.6759***	0.676***
location_NI	-0.9648***	-0.9652***

location_NW	-0.0429	-0.0431
location_North	0.9107***	0.9109***
location_SE	0.5948***	0.5943***
location_SW	0.4894***	0.4896***
location_Scotland	0.0616	0.0621
location_Wales	-0.2497	-0.2499
location_West_Midlands	0.3764*	0.3761*
location_Yorks_Humber	0.1284	0.1283
market_share	-0.0401*	-0.0404*
month_APR	4.6188***	4.6191***
month_AUG	8.4757***	8.4753***
month_DEC	3.9756***	3.9759***
month_FEB	6.8875***	6.8875***
month_JUL	5.3685***	5.3688***
month_JUN	6.526***	6.5264***
month_MAR	1.0857**	1.0852**
month_MAY	4.7853***	4.7857***
month_NOV	-1.9627***	-1.9631***
month_OCT	1.4245***	1.425***
month_SEP	0.9821**	0.9823**
oil	-7.5078***	-7.5074***
oil_1	-0.0749***	-0.0746***
oil_2	0.0304***	0.0299***
oil_3	0.0132*	0.0132*
oil_4	0.0506***	0.0509***
oil_5	0.0212***	0.021***
oil_6	-0.0237***	-0.0233***
oil_7	-0.0361***	-0.0362***
oil_8	0.0335***	0.0337***
oil_9	-0.0661***	-0.0666***
oil_10	-0.0071	-0.0072
oil_11	-0.0235***	-0.024***
oil_12	0.0151*	0.0151*
ppi_input	0.7508***	0.7511***
ppi_input_1	-0.4056***	-0.4051***
ppi_input_2	-0.3716***	-0.3717***
ppi_input_3	0.0882	0.0883
ppi_input_4	0.0862	0.0863
ppi_input_5	-0.2465**	-0.246**
ppi_input_6	0.2477**	0.2477**
ppi_input_7	-0.2325**	-0.2326**
ppi_input_8	0.1384	0.138
ppi_input_9	0.3386***	0.339***

ppi_input_10	-0.3618***	-0.3621***
ppi_input_11	-0.0279	-0.0278
ppi_input_12	0.173**	0.1735**
ppi_output	0.108	0.108
ppi_output_1	-0.4355**	-0.4357**
ppi_output_2	1.3558***	1.3555***
ppi_output_3	-0.0946	-0.0945
ppi_output_4	-1.1709***	-1.1711***
ppi_output_5	1.4392***	1.4388***
ppi_output_6	-1.7498***	-1.7493***
ppi_output_7	0.8624***	0.8626***
ppi_output_8	-0.6691***	-0.6696***
ppi_output_9	0.8678***	0.8683***
ppi_output_10	-0.4082**	-0.4078**
ppi_output_11	0.7115***	0.7112***
ppi_output_12	-0.5005***	-0.5***

Energy goods Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	0.7609	0.7609	6.6241***	5.6927***
R_1	-0.2258***	-0.2258***	-0.0602***	-0.0609***
R_2	-0.2833***	-0.2833***	0.0304***	0.0298***
R_3	0.1265***	0.1265***	0.02**	0.0112
R_4	0.0263	0.0263	-0.0045	-0.0105
R_5	0.5028***	0.5028***	0.019*	0.0104
R_6	-0.1168**	-0.1168**	0.0496***	0.0374***
R_7	0.1185**	0.1185**	-0.0733***	-0.0753***
R_8	-0.3381***	-0.3381***	0.0087	0.0074
R_9	0.5316***	0.5316***	0.0871***	0.0818***
R_10	-0.5343***	-0.5343***	-0.0618***	-0.0542***
R_11	0.1984***	0.1984***	-0.0003	5.25E-06
R_12	-0.3091***	-0.3091***	0.0587***	0.0603***
dummy_increase	0.9851***	0.9851***	0.7832***	0.8428***
dummy_independent	-0.4049**	-0.4049**	-0.0785	-0.8717**
dummy_nine_ending	-0.0206	-0.0206	-0.2374	-0.3559*
dummy_zero_ending	0.0458	0.0458	0.442***	0.2353**
expenditure_Alcoholic	0.0031**	0.0031**	-0.0029***	-0.0034***
expenditure_Communication	-0.0014	-0.0014	-0.0013**	-0.0023***
expenditure_Energy	-0.0011***	-0.0011***	0.0012***	0.0011***
expenditure_Housing_services	0.0248***	0.0248***	-0.0055***	-0.0045***

expenditure_Miscellaneous_services	-0.0003	-0.0003	0.0009***	0.0005***
expenditure_Non_energy_goods	0.0002	0.0002	0.0002	0.0006***
expenditure_Recreational_personal_services	-0.0002	-0.0002	-8.7E-05	5.77E-05
expenditure_Transport_travel_services	-0.0015	-0.0015	-0.0002	-0.0007***
inflation_1	-279.81***	-279.81***	144.29***	132.41***
inflation_2	18.779	18.779	-109.49***	-109.96***
inflation_3	426.25***	426.25***	-344.88***	-356.55***
inflation_4	1152***	1152***	-38.383	-42.435
inflation_5	7.9785	7.9785	-199.61***	-196.93***
inflation_6	946.07***	946.07***	87.831**	112.35***
inflation_7	295.97**	295.97**	133.48***	136.1***
inflation_8	180.79*	180.79*	-106.95***	-85.872**
inflation_9	-329.83***	-329.83***	139.28***	174.3***
inflation_10	-228.48**	-228.48**	12.025	44.69
inflation_11	72.902	72.902	242.89***	268.83***
inflation_12	-501.76***	-501.76***	180.96***	209.48***
location_East_Anglia	-0.5485	-0.5485	-0.3393*	-0.231
location_East_Midlands	-0.1215	-0.1215	0.4298**	0.3359
location_NI	-1.1102**	-1.1102**	-1.674***	-1.649
location_NW	-0.4878	-0.4878	-0.5004***	-0.3581
location_North	1.2116***	1.2116***	-0.0908	1.8087**
location_SE	0.175	0.175	0.2646*	0.7657
location_SW	-0.2032	-0.2032	0.3374**	0.2259
location_Scotland	-0.2875	-0.2875	-0.4579**	-0.0639
location_Wales	-0.6328	-0.6328	-0.7819***	-0.4149
location_West_Midlands	-0.5822*	-0.5822*	0.5326**	0.4771
location_Yorks_Humber	-0.5751	-0.5751	-0.007	0.1206
market_share	0.1671***	0.1671***	-0.0525***	0.3593***
month_APR	2.416	2.416	-0.2312	-0.5201
month_AUG	-3.872	-3.872	8.357***	7.7433***
month_DEC	-1.0342	-1.0342	2.9175***	2.2703***
month_FEB	5.0437***	5.0437***	-2.0711***	-1.8767***
month_JUL	-0.9803	-0.9803	6.373***	6.0917***
month_JUN	-2.9136	-2.9136	3.9291***	3.4799***
month_MAR	2.0295*	2.0295*	-1.4057***	-1.2512**
month_MAY	6.7796***	6.7796***	6.0514***	5.5232***
month_NOV	0.3027	0.3027	-1.7449**	-2.7507***
month_OCT	-1.6624	-1.6624	2.2327***	1.6096***
month_SEP	-0.0482	-0.0482	0.4499	-0.0319
oil	12.919***	12.919***	-14.635***	-14.695***
oil_1	-0.0347	-0.0347	-0.1089***	-0.1069***
oil_2	0.055**	0.055**	-0.0507***	-0.046***
oil_3	-0.0347	-0.0347	-0.1307***	-0.1169***

oil_4	0.0957***	0.0957***	-0.0407***	-0.0213**
oil_5	0.033	0.033	-0.0273**	-0.0154
oil_6	-0.1578***	-0.1578***	-0.089***	-0.0671***
oil_7	-0.1013***	-0.1013***	-0.083***	-0.0782***
oil_8	0.0745***	0.0745***	-0.0227**	-0.0223**
oil_9	0.0955***	0.0955***	-0.1288***	-0.125***
oil_10	0.0972***	0.0972***	-0.1123***	-0.1079***
oil_11	0.031	0.031	-0.0405***	-0.0419***
oil_12	0.1425***	0.1425***	-0.1029***	-0.0948***
ppi_input	-1.3693***	-1.3693***	1.0369***	0.9244***
ppi_input_1	0.9253***	0.9253***	-0.7778***	-0.7191***
ppi_input_2	-0.9453***	-0.9453***	-0.1943	-0.1743
ppi_input_3	0.5855**	0.5855**	0.1651	0.1661
ppi_input_4	-1.5577***	-1.5577***	0.2347*	0.1839
ppi_input_5	0.1219	0.1219	-0.659***	-0.5505***
ppi_input_6	1.0909***	1.0909***	0.7757***	0.6753***
ppi_input_7	-0.7202***	-0.7202***	-0.2077	-0.1946
ppi_input_8	0.6932***	0.6932***	0.8069***	0.7798***
ppi_input_9	-0.2167	-0.2167	-0.2647**	-0.2623**
ppi_input_10	1.4076***	1.4076***	-0.1833	-0.2217*
ppi_input_11	-0.3966*	-0.3966*	-1.0409***	-0.9948***
ppi_input_12	-0.4844***	-0.4844***	0.9651***	0.9464***
ppi_output	2.2909***	2.2909***	0.8513***	0.9625***
ppi_output_1	0.2213	0.2213	-1.295***	-1.3513***
ppi_output_2	2.7894***	2.7894***	1.6043***	1.4909***
ppi_output_3	-2.827***	-2.827***	0.6077**	0.672***
ppi_output_4	-0.9168**	-0.9168**	-2.0706***	-1.9949***
ppi_output_5	1.4388***	1.4388***	2.4478***	2.2453***
ppi_output_6	-0.3659	-0.3659	-3.0745***	-2.9197***
ppi_output_7	0.3572	0.3572	0.8108***	0.8563***
ppi_output_8	-0.2694	-0.2694	-1.2632***	-1.2186***
ppi_output_9	0.1288	0.1288	1.0661***	1.0364***
ppi_output_10	-1.6566***	-1.6566***	0.2508	0.2748
ppi_output_11	-1.0741**	-1.0741**	0.9245***	0.841***
ppi_output_12	0.9425***	0.9425***	-0.841***	-0.8104***

Non-Energy Goods			
with sales		full sample	
		FE	RE
R		101.75	55.981
R_1		-0.8135	-0.8393

R_2	0.1879	1.8251**
R_3	1.3336	0.4462
R_4	-2.6257***	-1.3156*
R_5	0.3675	1.0665
R_6	-1.1305	-0.5061
R_7	0.959	0.9634
R_8	0.3253	0.5105
R_9	-0.5215	-0.0356
R_10	1.3721	0.965
R_11	-1.8352*	-1.1832
R_12	1.3335	1.4715**
dummy_increase	74.676***	85.32***
dummy_independent	-29.026***	0.345
dummy_nine_ending	28.398**	100.13***
dummy_sales	-13.517	42.103***
dummy_zero_ending	32.448***	108.39***
expenditure_Alcoholic	0.0899***	-0.0253
expenditure_Communication	-0.1314***	-0.0322
expenditure_Energy	0.0107*	-0.0047
expenditure_Housing_services	0.0865	0.1534
expenditure_Miscellaneous_services	0.0034	-0.0152**
expenditure_Non_energy_goods	0.0116	0.015
expenditure_Recreational_personal_services	-0.0107	-0.0129
expenditure_Transport_travel_services	-0.0204	0.0014
inflation_1	-11010***	-2640.4
inflation_2	-8459.2***	-1746.6
inflation_3	-8809.9***	-3507.3
inflation_4	4107.8	4709.4*
inflation_5	-10560***	-5926.9**
inflation_6	-3437	-5256.4**
inflation_7	-6063**	-7171.5***
inflation_8	-6947.6**	-5200.7**
inflation_9	1303	-393.56
inflation_10	746.76	-946.48
inflation_11	-4273	-189.7
inflation_12	-2736.9	-1621.3
location_East_Anglia	-26.246	-45.677
location_East_Midlands	-36.18*	9.1804
location_NI	-14.962	14.835
location_NW	-37.148**	-59.916
location_North	-47.391**	-63.3
location_SE	39.06**	152.07**
location_SW	-39.921**	-56.841

location_Scotland	-26.974	-20.681
location_Wales	-46.939**	-63.697
location_West_Midlands	-34.904*	-34.818
location_Yorks_Humber	-30.537	-20.527
market_share	4.0859***	27.84***
month_APR	-14.439	-46.925
month_AUG	58.224	-26.578
month_DEC	-128.87**	-7.4108
month_FEB	-104.81**	-54.634
month_JUL	77.402*	-23.657
month_JUN	-36.255	-75.247
month_MAR	38.019	18.503
month_MAY	100.61**	41.061
month_NOV	-1.1114	61.848
month_OCT	28.418	64.289
month_SEP	-24.598	-23.779
oil	-27.443	-95.101
oil_1	0.5968	-0.4215
oil_2	2.6895***	-0.3411
oil_3	2.4866***	-0.4438
oil_4	2.8699***	1.4924**
oil_5	1.9128**	-0.4746
oil_6	2.8451***	2.161***
oil_7	0.7067	0.8322
oil_8	2.2174***	1.1344*
oil_9	0.6312	-0.4907
oil_10	-0.3188	0.3264
oil_11	2.4342***	1.4681**
oil_12	3.6738***	2.9357***
ppi_input	19.598**	9.5999
ppi_input_1	-16.4	-7.0503
ppi_input_2	-4.2547	-8.186
ppi_input_3	14.31	9.0473
ppi_input_4	-2.7839	-0.5414
ppi_input_5	-11.555	3.051
ppi_input_6	-8.6727	-3.5856
ppi_input_7	11.384	-2.9557
ppi_input_8	10.428	7.5093
ppi_input_9	-0.0011	-3.0753
ppi_input_10	-7.6759	-5.6967
ppi_input_11	15.245	13.476
ppi_input_12	-11.895*	-8.225
ppi_output	-12.717	4.4272

ppi_output_1	3.2727	-12.819
ppi_output_2	3.7406	17.237
ppi_output_3	-4.7566	-11.589
ppi_output_4	-10.387	-13.794
ppi_output_5	23.924	11.661
ppi_output_6	-4.5271	-2.3389
ppi_output_7	13.877	21.033
ppi_output_8	-34.385*	-24.543
ppi_output_9	24.834	26.234
ppi_output_10	-0.0801	-10.992
ppi_output_11	-25.433	-20.786
ppi_output_12	14.284	18.326**

Non-Energy goods Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-280.44	-9.4255	-5.4877**	-2.4769
R_1	-0.0609	-3.9369	-0.1022***	-0.0812***
R_2	3.594	0.4375	0.0514**	0.0393*
R_3	-1.3263	-3.9758	-0.0426*	-0.0444*
R_4	-14.034**	-12.931***	0.0554**	0.0663***
R_5	1.5851	6.3765	-0.0993***	-0.1032***
R_6	0.2916	5.8167	-0.0231	-0.0015
R_7	5.0537	6.4481	0.0617***	0.0203
R_8	-1.2088	-4.527	0.012	0.013
R_9	-7.5055	-8.6947	-0.023	-0.0239
R_10	1.1013	-0.2331	-0.1139***	-0.1058***
R_11	-1.5257	-3.0156	0.0321	0.0384*
R_12	12.614**	12.74***	0.0239	0.0078
dummy_increase	129.08***	158.26***	36.006***	36.74***
dummy_independent	-61.966***	-52.141	-0.3907	4.9219***
dummy_nine_ending	59.412**	215.07***	1.0887***	-0.6423*
dummy_sales	-20.168	86.247***	2.613***	4.9914***
dummy_zero_ending	47.692*	233.53***	17.005***	11.261***
expenditure_Alcoholic	-0.0559	-0.2449	-0.0011	0.001
expenditure_Communication	0.0463	0.2078	-0.0045***	0.0016
expenditure_Energy	0.0291	-0.0203	0.0012***	0.0004*
expenditure_Housing_services	-0.3401	0.5312	0.0145***	0.0235***
expenditure_Miscellaneous_services	0.0584	-0.0335	-3.2E-05	-8.3E-05
expenditure_Non_energy_goods	-0.024	-0.0087	0.0007	-0.0006
expenditure_Recreational_personal_services	0.0294	0.0317	1.48E-05	0.0003

expenditure_Transport_travel_services	-0.0235	0.0079	-0.0013***	-0.0007*
inflation_1	3514.7	18790*	-323.74***	-309.45***
inflation_2	-14540	-642.22	243.09**	110.59
inflation_3	-28630*	-17590	-340.37***	-425.38***
inflation_4	18830	13650	409.25***	250.76**
inflation_5	-30160*	-21980	298.73***	86.76
inflation_6	2574.3	-16050	-313.58***	-147.12
inflation_7	-3013.5	-13640	14.873	169.18*
inflation_8	-4800	-11450	-188.11*	-91.174
inflation_9	21430	10460	260.38***	260.59***
inflation_10	18690	8596.1	-147.38	-263.75***
inflation_11	10210	23610**	258.62**	103.87
inflation_12	6675.7	9606.5	35.117	-69.491
location_East_Anglia	-45.65	-163	-11.865***	-4.0437***
location_East_Midlands	-67.342	-94.68	-11.838***	-3.8903***
location_NI	-9.1626	-69.698	-19.969***	-6.6621***
location_NW	-71.648*	-189.7	-12.994***	-3.858***
location_North	-86.725	-194.87	-19.559***	-6.482***
location_SE	79.877**	119.15	-5.162***	-1.0642
location_SW	-73.3	-182.86	-14.665***	-5.4493***
location_Scotland	-48.612	-124.4	-11.506***	-4.1072***
location_Wales	-82.904	-189.18	-20.707***	-8.3979***
location_West_Midlands	-59.71	-148.54	-14.727***	-5.0195***
location_Yorks_Humber	-52.178	-126.5	-13.101***	-3.9312***
market_share	8.8525***	45.039***	-0.1099***	1.7402***
month_APR	-130.49	-178.74	11.89***	6.1841***
month_AUG	212.69	49.429	19.46***	9.6606***
month_DEC	-183.81	167.55	9.3479***	4.6634***
month_FEB	-54.326	67.092	7.3896***	5.2211***
month_JUL	224.24	-52.44	15.769***	7.5831***
month_JUN	-119.58	-100.28	16.467***	5.8203***
month_MAR	-69.598	-50.123	15.636***	9.3912***
month_MAY	315.74	129.42	17.804***	8.6758***
month_NOV	215.11	336.32*	9.0432***	3.1287*
month_OCT	103.03	220.31	16.466***	9.1117***
month_SEP	-97.611	-57.55	13.867***	6.3891***
oil	-204.32	-282.55	-1.2569	-6.6304**
oil_1	0.866	-1.9032	0.1311***	0.0996***
oil_2	7.6408**	0.6212	0.1909***	0.131***
oil_3	7.4421**	0.3673	0.0935***	0.0693***
oil_4	6.6729**	4.0149	0.1279***	0.1041***
oil_5	6.8156**	2.2812	0.1293***	0.1472***
oil_6	6.8109**	5.2171**	-0.0076	-0.0476

oil_7	5.7288*	4.5822*	-0.0334	-0.0676**
oil_8	3.9425	1.5078	0.0911***	0.0269
oil_9	2.7989	-0.0844	0.1467***	0.076***
oil_10	5.4825*	5.8944**	0.0792***	0.0552**
oil_11	8.5536***	5.4307**	0.0265	0.0134
oil_12	10.648***	10.166***	0.0114	-0.0033
ppi_input	53.576	56.55**	-0.5898**	-0.481**
ppi_input_1	-50.581	-51.39	-0.1	0.0683
ppi_input_2	-10.88	-7.5551	0.0476	0.1565
ppi_input_3	34.473	40.49	-0.6742**	-0.8209***
ppi_input_4	-29.724	-34.982	1.1415***	0.8843***
ppi_input_5	15.777	19.974	-0.0534	-0.2883
ppi_input_6	9.8238	25.726	-0.7136**	-0.1639
ppi_input_7	-28.415	-48.933*	-0.2779	-0.2748
ppi_input_8	18.741	19.872	1.1826***	0.7851**
ppi_input_9	17.724	7.3403	-1.2916***	-1.254***
ppi_input_10	-60.16*	-36.016	1.4166***	1.5117***
ppi_input_11	61.977**	40.937	-1.2685***	-0.8552***
ppi_input_12	-11.722	-10.794	0.1961	-0.0945
ppi_output	-126.88**	-56.733	0.7191*	0.4697
ppi_output_1	-0.0905	-42.212	0.121	-0.2201
ppi_output_2	9.4452	33.675	-3.1479***	-2.1284***
ppi_output_3	9.8858	-36.59	4.2208***	3.762***
ppi_output_4	-18.667	-28.7	-1.9145***	-1.8077***
ppi_output_5	35.328	21.067	-2.3266***	-1.8683***
ppi_output_6	-34.956	-1.3828	6.1525***	5.1736***
ppi_output_7	74.424	58.051	-4.0315***	-3.9793***
ppi_output_8	-78.875	-50.186	0.0271	0.8057
ppi_output_9	67.333	51.778	1.3349**	0.7444
ppi_output_10	-71.38	-57.786	-2.3459***	-2.1554***
ppi_output_11	21.683	-20.74	2.8878***	2.632***
ppi_output_12	-1.9	35.622	-1.3391***	-1.1298***

Non-Energy Goods			
without sales		full sample	
		FE	RE
R		111.91	36.592
R_1		-0.5756	-1.2642
R_2		0.7048	3.0157***
R_3		1.1718	-0.219
R_4		-3.3145***	-1.7376*

R_5	0.5049	1.2732
R_6	-1.005	-0.4188
R_7	1.1667	1.0941
R_8	-0.1105	-0.045
R_9	0.1698	0.8164
R_10	1.2059	0.545
R_11	-2.0343	-1.0526
R_12	1.7164	1.6591*
dummy_increase	85.385***	82.861***
dummy_independent	-34.957**	14.717
dummy_nine_ending	30.857*	123.06***
dummy_zero_ending	39.216**	138.84***
expenditure_Alcoholic	0.1154***	-0.0421
expenditure_Communication	-0.1733***	-0.026
expenditure_Energy	0.0142*	-0.0051
expenditure_Housing_services	0.1284	0.146
expenditure_Miscellaneous_services	0.0012	-0.0197**
expenditure_Non_energy_goods	0.0168	0.0172
expenditure_Recreational_personal_services	-0.0151	-0.0126
expenditure_Transport_travel_services	-0.0269	0.0021
inflation_1	-17350***	-4998.5
inflation_2	-10920***	-1319
inflation_3	-12520***	-3400.7
inflation_4	4098.7	4367.4
inflation_5	-14530***	-6024.6*
inflation_6	-5009.9	-4469.2
inflation_7	-11120***	-11560***
inflation_8	-9368.1**	-6286**
inflation_9	2215.1	332.81
inflation_10	82.494	-2981.4
inflation_11	-5524.5	682.47
inflation_12	-5377.8	-1885.1
location_East_Anglia	-29.454	-53.453
location_East_Midlands	-43.909*	8.8556
location_NI	-14.081	12.422
location_NW	-46.126*	-69.919
location_North	-57.528*	-74.873
location_SE	54.931**	210.07**
location_SW	-49.462*	-65.83
location_Scotland	-32.07	-27.91
location_Wales	-56.804*	-73.956
location_West_Midlands	-41.074	-36.239
location_Yorks_Humber	-37.853	-26.393

market_share	8.8592***	42.169***
month_APR	4.4217	-42.399
month_AUG	67.574	-61.043
month_DEC	-145.2**	20.921
month_FEB	-126.44*	-67.641
month_JUL	123.54**	-3.754
month_JUN	-31.537	-71.883
month_MAR	85.327	47.287
month_MAY	158.18***	55.553
month_NOV	11.674	63.276
month_OCT	66.546	97.859*
month_SEP	10.636	-9.1614
oil	-16.98	-100.75
oil_1	1.0075	0.0602
oil_2	3.4023***	-0.4737
oil_3	3.5358***	-0.5374
oil_4	3.7379***	1.9467**
oil_5	2.8584***	-0.3444
oil_6	3.4738***	2.3722***
oil_7	1.5644	1.6949*
oil_8	2.9116***	1.754**
oil_9	0.1831	-1.0563
oil_10	-0.2633	0.6595
oil_11	4.1341***	2.8312***
oil_12	3.842***	2.9958***
ppi_input	28.187***	12.003
ppi_input_1	-25.753*	-9.679
ppi_input_2	-4.7477	-10.158
ppi_input_3	25.979*	16.803
ppi_input_4	-8.3553	-4.7198
ppi_input_5	-16.515	0.865
ppi_input_6	-13.203	-1.5918
ppi_input_7	18.919	-3.8902
ppi_input_8	15.753	10.58
ppi_input_9	-3.903	-3.3666
ppi_input_10	-9.5451	-8.004
ppi_input_11	20.117	14.909
ppi_input_12	-15.189	-9.445
ppi_output	-29.46*	-0.9848
ppi_output_1	26.044	-6.8275
ppi_output_2	-9.8874	13.815
ppi_output_3	-0.9875	-10.329
ppi_output_4	-11.802	-17.736

ppi_output_5	29.563	17.016
ppi_output_6	0.6462	-4.0842
ppi_output_7	5.8227	19.672
ppi_output_8	-33.49	-20.849
ppi_output_9	23.655	23.451
ppi_output_10	8.286	-3.0731
ppi_output_11	-44.078*	-37.493*
ppi_output_12	24.714*	29.46**

Non-Energy goods Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-455.06	-120.02	-3.8095*	-3.8095*
R_1	3.2553	-2.6673	0.0184	0.0184
R_2	5.9735	2.4102	0.108***	0.108***
R_3	-3.6348	-6.9927	-0.0407*	-0.0407*
R_4	-25.772***	-23.336***	0.0068	0.0068
R_5	4.2804	8.9368	0.0267	0.0267
R_6	-5.2237	4.4686	-0.0747***	-0.0747***
R_7	8.3113	9.8751	0.1425***	0.1425***
R_8	-6.5123	-7.7616	-0.0471**	-0.0471**
R_9	-6.6878	-8.6949	-0.0102	-0.0102
R_10	-2.9547	-2.346	-0.065***	-0.065***
R_11	2.2317	-0.0603	-0.0212	-0.0212
R_12	17.858**	17.918***	-0.0184	-0.0184
dummy_increase	164.76***	169.9***	32.442***	32.442***
dummy_independent	-81.063**	-39.879	-0.019	-0.019
dummy_nine_ending	75.171*	285.87***	1.3109***	1.3109***
dummy_zero_ending	67.532*	334.3***	16.254***	16.254***
expenditure_Alcoholic	-0.1627	-0.3971*	0.0002	0.0002
expenditure_Communication	-0.0167	0.223	-0.008***	-0.008***
expenditure_Energy	0.0551	-0.0241	0.0012***	0.0012***
expenditure_Housing_services	-0.4006	0.6238	0.0059	0.0059
expenditure_Miscellaneous_services	0.1035	-0.0178	0.0006**	0.0006**
expenditure_Non_energy_goods	-0.0011	0.0258	0.0002	0.0002
expenditure_Recreational_personal_services	0.0278	0.0184	-0.0001	-0.0001
expenditure_Transport_travel_services	-0.077	-0.032	0.0005	0.0005
inflation_1	-8386.8	14960	-299.86***	-299.86***
inflation_2	-22960	-4263.2	220.44**	220.44**
inflation_3	-52510**	-31300*	-33.798	-33.798
inflation_4	20080	9433.9	394.28***	394.28***

inflation_5	-56210**	-37030*	398.85***	398.85***
inflation_6	10210	-14400	-305.63***	-305.63***
inflation_7	-21030	-30750*	-61.715	-61.715
inflation_8	-5956.5	-14820	-353.51***	-353.51***
inflation_9	24830	14120	39.127	39.127
inflation_10	19510	4398.1	-132.83	-132.83
inflation_11	15820	33340**	111.13	111.13
inflation_12	-5901.3	4478.2	-42.729	-42.729
location_East_Anglia	-51.517	-176.52	-11.971***	-11.971***
location_East_Midlands	-84.513	-97.446	-12.615***	-12.615***
location_NI	0.3147	-70.64	-21.827***	-21.827***
location_NW	-97.178	-210.36	-13.636***	-13.636***
location_North	-113.46	-216.43	-21.495***	-21.495***
location_SE	123.24**	197.23	-4.8138***	-4.8138***
location_SW	-95.056	-201.66	-16.225***	-16.225***
location_Scotland	-61.313	-137.28	-12.123***	-12.123***
location_Wales	-107.73	-208.08	-22.972***	-22.972***
location_West_Midlands	-71.944	-153.72	-16.294***	-16.294***
location_Yorks_Humber	-66.836	-136.48	-14.754***	-14.754***
market_share	21.875***	69.21***	0.1196***	0.1196***
month_APR	-150.64	-200.36	10.177***	10.177***
month_AUG	348.49	119.72	11.8***	11.8***
month_DEC	-242.19	234.8	10.661***	10.661***
month_FEB	-106.47	56.331	3.8382**	3.8382**
month_JUL	531.76	151.79	6.0019***	6.0019***
month_JUN	-109.35	-52.974	13.95***	13.95***
month_MAR	-8.8194	-19.708	11.304***	11.304***
month_MAY	550.99*	215.2	16.081***	16.081***
month_NOV	260.61	349.64	12.378***	12.378***
month_OCT	132.78	313.65	16.134***	16.134***
month_SEP	97.498	81.315	9.5719***	9.5719***
oil	-221.17	-358.63	10.079***	10.079***
oil_1	1.9214	-2.0486	0.0668**	0.0668**
oil_2	12.29***	2.5894	0.1481***	0.1481***
oil_3	10.78**	0.8925	0.0748***	0.0748***
oil_4	10.68**	6.0739	0.0594**	0.0594**
oil_5	11.024**	4.0735	0.0377	0.0377
oil_6	8.2604*	5.283	0.0923***	0.0923***
oil_7	10.76**	7.9301**	-0.0552**	-0.0552**
oil_8	4.5479	1.7111	-0.0267	-0.0267
oil_9	3.9117	-1.5411	0.1665***	0.1665***
oil_10	8.5943*	8.3058**	0.0413	0.0413
oil_11	13.47***	8.8114**	0.1293***	0.1293***

oil_12	14.725***	12.677***	0.056**	0.056**
ppi_input	71.837	71.476*	-0.9701***	-0.9701***
ppi_input_1	-55.559	-45.908	0.0637	0.0637
ppi_input_2	-41.691	-41.421	-0.2614	-0.2614
ppi_input_3	90.949*	89.789**	-0.0417	-0.0417
ppi_input_4	-90.501*	-79.659*	1.0255***	1.0255***
ppi_input_5	68.722	57.762	-0.2669	-0.2669
ppi_input_6	-3.5383	29.649	-0.9488***	-0.9488***
ppi_input_7	-51.761	-83.445**	-0.0085	-0.0085
ppi_input_8	51.578	43.069	0.9601***	0.9601***
ppi_input_9	-18.683	-16.283	-0.0922	-0.0922
ppi_input_10	-52.06	-27.794	0.6543**	0.6543**
ppi_input_11	61.403	30.831	-1.2704***	-1.2704***
ppi_input_12	-0.7126	3.6151	-0.0258	-0.0258
ppi_output	-235.41***	-126.34**	0.3803	0.3803
ppi_output_1	64.376	-4.4395	0.4793	0.4793
ppi_output_2	-33.559	6.2794	-2.0472***	-2.0472***
ppi_output_3	54.285	-13	2.3433***	2.3433***
ppi_output_4	-41.135	-50.125	-0.7844	-0.7844
ppi_output_5	36.272	19.877	-1.6253**	-1.6253**
ppi_output_6	-35.924	6.9032	3.58***	3.58***
ppi_output_7	76.83	57.565	-1.793***	-1.793***
ppi_output_8	-66.036	-27.966	0.1234	0.1234
ppi_output_9	62.271	39.253	-0.6586	-0.6586
ppi_output_10	-86.248	-57.705	-0.7663	-0.7663
ppi_output_11	44.179	-16.863	2.0595***	2.0595***
ppi_output_12	-7.1886	35.498	-0.8122**	-0.8122**

Housing Services			
	with sales	full sample	
		FE	RE
R		7.7187**	5.0794*
R_1		0.0462	-0.0008
R_2		0.0868**	0.002
R_3		0.1815***	0.0983***
R_4		0.0066	-0.0749**
R_5		0.0706*	0.0651**
R_6		0.0165	-0.0152
R_7		0.0987***	0.0406
R_8		0.0769**	0.04
R_9		0.0451	0.0127

R_10	-0.067*	-0.0311
R_11	-0.034	-0.0365
R_12	-0.0374	-0.013
dummy_increase	19.751***	22.177***
dummy_independent	12.799***	18.914***
dummy_nine_ending	-0.0713	-1.4959***
dummy_sales	-1.2506***	2.2458***
dummy_zero_ending	7.6343***	4.7941***
expenditure_Alcoholic	-0.0024***	-0.011***
expenditure_Communication	-0.0053***	-0.0011
expenditure_Energy	0.0002	0.0003
expenditure_Housing_services	0.0262***	0.0167***
expenditure_Miscellaneous_services	0.0013***	4.36E-06
expenditure_Non_energy_goods	-0.0005	-2.9E-05
expenditure_Recreational_personal_services	0.0002	0.0005
expenditure_Transport_travel_services	0.0002	0.0008*
inflation_1	-145.61	48.265
inflation_2	47.825	308.36***
inflation_3	-276.49**	29.261
inflation_4	-133.83	208.33**
inflation_5	-317.71***	-31.895
inflation_6	-274.4***	76.017
inflation_7	-119.59	123.74
inflation_8	-247.9**	-135.47
inflation_9	61.056	106.03
inflation_10	-284.04***	-147.84*
inflation_11	-110.76	207.42**
inflation_12	-152.74	84.408
location_East_Anglia	-2.7455***	-3.275**
location_East_Midlands	-6.3515***	-3.6899**
location_NI	-5.2264***	0.8733
location_NW	-3.4289***	-0.5236
location_North	-12.402***	-4.8403**
location_SE	1.6389***	0.5584
location_SW	-7.6715***	-5.1271***
location_Scotland	-7.1866***	-3.7119**
location_Wales	-8.7203***	-4.0238**
location_West_Midlands	-1.3501*	-2.5133
location_Yorks_Humber	-3.7726***	-0.245
market_share	17.536***	33.38***
month_APR	5.0224***	-1.2862
month_AUG	3.6912*	-4.3924**
month_DEC	8.3072***	4.7593***

month_FEB	7.3649***	-0.319
month_JUL	2.6167*	-3.3964***
month_JUN	2.4776	-2.6707*
month_MAR	6.6057***	-1.0617
month_MAY	2.1719	-2.7503*
month_NOV	4.962**	1.4837
month_OCT	8.2418***	2.9465*
month_SEP	3.222*	-2.3941*
oil	8.7024***	8.6946***
oil_1	0.1725***	0.1306***
oil_2	0.0849***	0.0601***
oil_3	0.0205	0.0046
oil_4	0.131***	0.1101***
oil_5	0.0884***	0.0945***
oil_6	0.102***	0.0889***
oil_7	-0.0122	0.016
oil_8	0.0704**	0.0558**
oil_9	0.0301	0.0642***
oil_10	0.0352	0.0792***
oil_11	0.1203***	0.1***
oil_12	0.0509	0.032
ppi_input	-0.9576***	-0.772***
ppi_input_1	-0.8457**	-0.4755
ppi_input_2	0.0089	0.1197
ppi_input_3	1.2023***	0.7435**
ppi_input_4	-0.4546	-0.2394
ppi_input_5	0.3247	0.109
ppi_input_6	-0.3037	-0.2076
ppi_input_7	1.1026***	0.7579**
ppi_input_8	-0.9978***	-0.6971**
ppi_input_9	-0.2676	-0.2322
ppi_input_10	0.7012*	0.3824
ppi_input_11	-0.6636*	-0.4026
ppi_input_12	-0.0853	-0.1087
ppi_output	-0.4434	-0.5275
ppi_output_1	1.2622*	0.8534
ppi_output_2	-0.154	-0.1968
ppi_output_3	-0.7848	-0.3069
ppi_output_4	1.0859	0.1859
ppi_output_5	-0.3213	0.0932
ppi_output_6	0.0341	-0.3313
ppi_output_7	-0.2958	0.2065
ppi_output_8	0.5272	0.6813

ppi_output_9	-0.0445	-0.4111
ppi_output_10	-0.6805	-0.3944
ppi_output_11	0.9708	0.5727
ppi_output_12	-0.2784	0.206

Housing services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-27.211**	-25.539***	2.2105	1.6963
R_1	0.0127	0.035	-0.0247	-0.0577
R_2	0.0143	-0.0667	0.0977*	0.0884**
R_3	0.0386	0.1064	0.1253**	0.0625
R_4	0.0211	-0.1229	-0.0263	-0.0652
R_5	-0.2338*	-0.0712	0.1487***	0.1574***
R_6	0.0646	-0.2409**	-0.0869*	-0.0833*
R_7	0.0537	-0.0028	0.1377***	0.0991**
R_8	0.3601**	0.0653	0.0728	0.0721
R_9	0.1798	-0.0317	0.0376	0.0186
R_10	0.1305	-0.0404	-0.0566	-0.0489
R_11	0.0953	-0.0517	-0.04	-0.0348
R_12	0.0831	-0.0409	-0.0293	-0.0485
dummy_increase	14.746***	17.829***	25.224***	27.051***
dummy_independent	8.6249***	19.97***	16.952***	17.619***
dummy_nine_ending	3.6378***	-0.5382	-3.5357***	-2.97***
dummy_sales	-2.9306***	1.5002***	0.8244	3.6639***
dummy_zero_ending	4.2631***	3.53***	10.593***	7.1191***
expenditure_Alcoholic	0.0051	-0.01***	-0.0087***	-0.0075***
expenditure_Communication	-0.0011	-0.0014	0.0008	-0.001
expenditure_Energy	0.0012	-0.0006	0.0001	0.0004
expenditure_Housing_services	-0.0325***	-0.0234**	0.0032	0.0012
expenditure_Miscellaneous_services	0.0023**	0.0021**	0.001*	0.001*
expenditure_Non_energy_goods	0.0023	0.0027	0.0009	0.0005
expenditure_Recreational_personal_services	-0.0024	-0.0016	0.002***	0.0012**
expenditure_Transport_travel_services	-0.0036	-0.0025	-0.004***	-0.002**
inflation_1	17.546	36.096	-593.12***	-502.19***
inflation_2	-371.58	72.176	166.08	211.81
inflation_3	-285.49	-133.37	104.93	140.17
inflation_4	-170.81	4.9375	244.96	207.45
inflation_5	219.34	201.5	325.63	153.54
inflation_6	204.42	156.31	233.56	253.83
inflation_7	491.85	241.03	-84.667	-123.87

inflation_8	379.73	-35.532	-82.737	-191.89
inflation_9	484.07*	319.13	576.75***	452.16**
inflation_10	203.42	203.58	327.69	2.5876
inflation_11	162.44	345.92	647.73***	487.29***
inflation_12	2.7558	-53.041	177.25	107.92
location_East_Anglia	1.9996*	1.0308	-6.4963***	-4.0694***
location_East_Midlands	-3.7138***	0.002	-7.9892***	-5.9327***
location_NI	3.9087***	8.3618***	-13.266***	-8.1177***
location_NW	2.2362**	5.8239**	-8.0187***	-4.1637***
location_North	-1.2741	1.8313	-24.611***	-16.564***
location_SE	4.9717***	5.2068***	-1.6846**	-2.2732**
location_SW	-2.6968***	-1.6026	-11.657***	-7.3955***
location_Scotland	-3.1146***	0.1927	-10.744***	-6.3374***
location_Wales	-2.0054	0.7841	-16.42***	-10.73***
location_West_Midlands	-1.1219	2.1254	-0.3122	-1.7438
location_Yorks_Humber	-5.0545***	2.5349	-2.2692**	-1.3997
market_share	15.947***	36.882***	17.069***	18.094***
month_APR	14.001***	5.6718*	13.883***	8.2328***
month_AUG	24.194***	8.8551	10.537***	4.6956
month_DEC	6.2946	5.89	7.5647**	6.3723**
month_FEB	13.361***	4.6672	0.7089	-3.3368
month_JUL	22.245***	7.6003	11.098***	6.9236***
month_JUN	20.891***	8.25*	13.176***	7.5164***
month_MAR	8.5934**	1.0244	14.413***	8.0836***
month_MAY	12.726***	3.5521	11.061***	5.4927**
month_NOV	-3.347	-2.275	-0.3658	-1.3957
month_OCT	7.4333*	3.5723	9.9987***	8.5694***
month_SEP	10.334*	2.1105	11.03***	7.4775***
oil	0.8313	6.3004	16.431***	14.777***
oil_1	0.1224**	0.1144**	0.2759***	0.2567***
oil_2	0.097	0.109**	0.2498***	0.1629***
oil_3	0.0511	0.0707	0.1525***	0.0821
oil_4	0.134**	0.1563***	0.2744***	0.2042***
oil_5	0.0452	0.0621	0.2071***	0.1226**
oil_6	0.0558	0.0578	0.2688***	0.1921***
oil_7	-0.0206	0.047	0.0976	0.0683
oil_8	0.0162	0.1534***	0.1318**	0.0394
oil_9	-0.0023	0.1093*	0.2103***	0.1668***
oil_10	-0.0615	0.0933*	0.1145**	0.1017**
oil_11	-0.0815	0.0124	0.2139***	0.1615***
oil_12	-0.0586	0.0643	0.0124	-0.0059
ppi_input	1.0147	0.621	-1.3318**	-0.8606*
ppi_input_1	-0.6161	-0.3735	-1.9841***	-1.9246***

ppi_input_2	-1.0686	-0.8023	1.0921	1.2018*
ppi_input_3	0.8685	0.419	0.348	0.1742
ppi_input_4	-0.942	-0.5028	0.9137	1.1355*
ppi_input_5	1.1727	0.9602	0.4057	-0.1305
ppi_input_6	-0.7837	0.046	-1.5214**	-0.9654
ppi_input_7	0.3817	0.054	-0.1414	-0.314
ppi_input_8	-0.6983	-0.7277	1.3781*	1.3508**
ppi_input_9	0.4372	0.0708	-1.1291*	-0.8908
ppi_input_10	1.364**	0.9464*	-0.7767	-0.3938
ppi_input_11	0.1846	-0.1753	-1.0153	-1.3705**
ppi_input_12	-0.4042	-0.2423	0.4926	0.6999*
ppi_output	-1.9275*	-1.6408*	-0.5879	-0.8565
ppi_output_1	3.6167***	1.7529	3.3477***	3.0985***
ppi_output_2	-0.4572	-0.3549	-3.4794***	-2.8293**
ppi_output_3	0.4643	-0.0372	1.3935	1.3009
ppi_output_4	-0.5085	-0.6715	-0.0931	-0.6223
ppi_output_5	0.2172	0.2702	-2.2559	-1.0179
ppi_output_6	0.0957	-0.111	2.8208**	1.5257
ppi_output_7	-0.6399	0.1079	1.8173	1.7918
ppi_output_8	-0.553	0.0549	-3.948***	-3.0467**
ppi_output_9	-0.8584	-1.6736*	2.7817**	1.6117
ppi_output_10	0.3762	1.2784	-0.443	-0.4937
ppi_output_11	2.2142*	0.6047	0.5373	1.2572
ppi_output_12	-1.5893*	0.3084	0.4903	-0.0295

Housing Services			
without sales		full sample	
		FE	RE
R		6.1505	1.0337
R_1		0.0612	0.0251
R_2		0.0683	-0.0124
R_3		0.1546***	0.0777**
R_4		-0.0185	-0.062
R_5		0.0267	-0.0317
R_6		-0.031	-0.0298
R_7		0.1417***	0.0804**
R_8		0.0685	0.016
R_9		0.0466	0.0103
R_10		-0.0672	-0.0616
R_11		-0.0394	-0.0425
R_12		-0.0804*	-0.0728**

dummy_increase	19.742***	22.903***
dummy_independent	15.796***	19.139***
dummy_nine_ending	-1.3339**	-3.0976***
dummy_zero_ending	9.5307***	6.2778***
expenditure_Alcoholic	-1.3E-05	-0.0088***
expenditure_Communication	-0.0107***	-0.0027
expenditure_Energy	0.0005	0.0003
expenditure_Housing_services	0.0242***	0.0114**
expenditure_Miscellaneous_services	0.0015***	0.0002
expenditure_Non_energy_goods	-0.0007	0.0003
expenditure_Recreational_personal_services	0.0009*	0.0002
expenditure_Transport_travel_services	-0.0001	0.0005
inflation_1	-359.69**	-148.43
inflation_2	28.765	278.16**
inflation_3	-213.6	149.16
inflation_4	-152.45	190.96
inflation_5	-372.85***	-66.368
inflation_6	-146.9	139.75
inflation_7	-310.08**	-82.431
inflation_8	-311.51**	-165.4
inflation_9	59.151	42.808
inflation_10	-460.66***	-341.8***
inflation_11	-72.86	229.79**
inflation_12	-112.62	163.91
location_East_Anglia	-4.7817***	-3.2458**
location_East_Midlands	-7.2858***	-3.1403*
location_NI	-6.078***	-0.7574
location_NW	-6.1446***	-0.8729
location_North	-16.25***	-6.1461***
location_SE	1.0648	1.4514
location_SW	-10.041***	-5.2755***
location_Scotland	-9.4787***	-3.5839**
location_Wales	-11.766***	-4.8855**
location_West_Midlands	-1.4513	-1.5638
location_Yorks_Humber	-3.3035***	0.5315
market_share	16.675***	27.384***
month_APR	6.5035***	0.2993
month_AUG	2.1098	-5.1782**
month_DEC	8.2463***	3.9664*
month_FEB	7.4594***	0.2115
month_JUL	4.5008**	-1.1698
month_JUN	3.0276	-0.9507
month_MAR	8.892***	1.0253

month_MAY	4.0984*	-0.8355
month_NOV	5.1464**	0.8916
month_OCT	9.0716***	3.3904*
month_SEP	5.8508***	0.737
oil	5.7441	7.7493**
oil_1	0.238***	0.1715***
oil_2	0.1273***	0.1101***
oil_3	0.0614*	0.0303
oil_4	0.1293***	0.1045***
oil_5	0.1593***	0.1565***
oil_6	0.1312***	0.1243***
oil_7	0.0136	0.0453
oil_8	0.0455	0.0572*
oil_9	0.046	0.0657**
oil_10	0.0757**	0.1339***
oil_11	0.1954***	0.175***
oil_12	0.0325	0.0157
ppi_input	-1.057***	-1.0689***
ppi_input_1	-0.6285	-0.0697
ppi_input_2	-0.3008	-0.535
ppi_input_3	1.4263***	1.2439***
ppi_input_4	-0.1842	-0.0478
ppi_input_5	0.2041	-0.0795
ppi_input_6	-0.7823	-0.5049
ppi_input_7	1.5234***	0.9167**
ppi_input_8	-0.946*	-0.8812**
ppi_input_9	-0.2141	0.1325
ppi_input_10	0.6122	0.1506
ppi_input_11	-0.5922	-0.1209
ppi_input_12	0.039	-0.1345
ppi_output	-0.7507	-0.6941
ppi_output_1	1.2399	0.716
ppi_output_2	0.0642	0.2283
ppi_output_3	-0.8469	-0.3915
ppi_output_4	1.0404	-0.1291
ppi_output_5	-1.0037	0.0591
ppi_output_6	1.3679	0.3474
ppi_output_7	-1.2498	-0.2576
ppi_output_8	1.1347	1.3294*
ppi_output_9	-0.4557	-0.9446
ppi_output_10	-0.1729	-0.0238
ppi_output_11	0.0872	-0.0347
ppi_output_12	-0.2036	0.2142

Housing services Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-44.609***	-37.887***	3.331	3.331
R_1	0.0678	0.1103	0.0225	0.0225
R_2	-0.0417	-0.0904	0.0642	0.0642
R_3	0.0489	0.1241	0.1565**	0.1565**
R_4	0.0207	-0.1482	-0.102	-0.102
R_5	-0.1893	-0.2016	0.1978***	0.1978***
R_6	0.0031	-0.3347**	-0.1365**	-0.1365**
R_7	0.1683	0.0727	0.179***	0.179***
R_8	0.375*	-0.0415	0.1079*	0.1079*
R_9	0.3387*	0.1251	0.0355	0.0355
R_10	0.1039	-0.2968**	-0.03	-0.03
R_11	0.1292	0.008	-0.0807	-0.0807
R_12	-0.087	-0.2047	-0.0684	-0.0684
dummy_increase	14.688***	18.838***	24.836***	24.836***
dummy_independent	10.082***	17.741***	18.999***	18.999***
dummy_nine_ending	3.9623***	-2.8812***	-4.6789***	-4.6789***
dummy_zero_ending	6.2351***	4.9779***	11.979***	11.979***
expenditure_Alcoholic	0.0112**	-0.01**	-0.0103***	-0.0103***
expenditure_Communication	-0.0084	-0.0063	-0.0031	-0.0031
expenditure_Energy	0.0009	-0.0012	0.001	0.001
expenditure_Housing_services	-0.0393**	-0.0193	0.0035	0.0035
expenditure_Miscellaneous_services	0.0028*	0.0028**	0.0016**	0.0016**
expenditure_Non_energy_goods	0.0032	0.0053*	0.0004	0.0004
expenditure_Recreational_personal_services	-0.0037	-0.004	0.0022***	0.0022***
expenditure_Transport_travel_services	-0.0048	-0.0042	-0.0028**	-0.0028**
inflation_1	-278.28	-313.53	-929.87***	-929.87***
inflation_2	-515.05	-177.96	112.15	112.15
inflation_3	-71.496	-255.76	157.27	157.27
inflation_4	174.44	-30.138	178.65	178.65
inflation_5	393.53	-221.2	25.387	25.387
inflation_6	520.41	147.49	376.8	376.8
inflation_7	688.38	-125.62	-226.51	-226.51
inflation_8	588.43	-32.987	-109.77	-109.77
inflation_9	249.21	-262.06	787.57***	787.57***
inflation_10	-255.8	-451.47	378.19	378.19
inflation_11	-49.585	-150.85	535.44**	535.44**
inflation_12	-73.18	-133.08	407.15*	407.15*

location_East_Anglia	-0.2591	-0.5564	-7.2952***	-7.2952***
location_East_Midlands	-5.5437***	-1.6272	-7.8123***	-7.8123***
location_NI	3.7113*	5.1957*	-12.886***	-12.886***
location_NW	0.5258	3.1027	-10.766***	-10.766***
location_North	-4.5428**	-0.6931	-27.384***	-27.384***
location_SE	3.8703***	3.7326**	-1.6302*	-1.6302*
location_SW	-5.4926***	-3.7976*	-12.858***	-12.858***
location_Scotland	-5.4696***	-1.6689	-12.305***	-12.305***
location_Wales	-4.8395***	-1.9577	-18.205***	-18.205***
location_West_Midlands	-2.8307**	0.8851	0.6341	0.6341
location_Yorks_Humber	-5.9945***	0.3464	-0.8565	-0.8565
market_share	15.647***	28.038***	15.331***	15.331***
month_APR	16.632***	3.1964	11.948***	11.948***
month_AUG	26.979**	9.9864	3.7515	3.7515
month_DEC	2.6788	-2.0948	3.2369	3.2369
month_FEB	18.989***	7.5921*	-8.2523*	-8.2523*
month_JUL	28.284***	13.293*	9.4213***	9.4213***
month_JUN	25.77***	8.1479	7.2537*	7.2537*
month_MAR	13.659***	4.09	10.809***	10.809***
month_MAY	17.597***	4.506	10.04***	10.04***
month_NOV	-5.9492	-7.315	0.1469	0.1469
month_OCT	7.0295	-0.0462	9.9076**	9.9076**
month_SEP	13.953*	6.9378	10.831***	10.831***
oil	1.465	7.2598	12.909*	12.909*
oil_1	0.171**	0.1261**	0.299***	0.299***
oil_2	0.123	0.1798**	0.2567***	0.2567***
oil_3	0.027	0.0866	0.1517**	0.1517**
oil_4	0.0801	0.1337*	0.2947***	0.2947***
oil_5	0.0635	0.0968	0.2545***	0.2545***
oil_6	0.0454	0.0628	0.2421***	0.2421***
oil_7	-0.0246	0.1312*	0.0241	0.0241
oil_8	-0.0138	0.1697**	0.0447	0.0447
oil_9	-0.015	0.1114	0.2437***	0.2437***
oil_10	-0.0601	0.1601**	0.0601	0.0601
oil_11	-0.0804	0.1297*	0.2127***	0.2127***
oil_12	-0.0922	0.0338	-0.0203	-0.0203
ppi_input	0.8348	-0.0545	-1.1062*	-1.1062*
ppi_input_1	-0.4158	0.3192	-1.8845**	-1.8845**
ppi_input_2	-1.2544	-1.8588**	0.6071	0.6071
ppi_input_3	1.2327	1.6619*	0.7767	0.7767
ppi_input_4	-1.0198	-0.9176	0.237	0.237
ppi_input_5	0.8388	1.3506	1.3311	1.3311
ppi_input_6	-1.1559	-0.4433	-1.8595**	-1.8595**

ppi_input_7	0.3666	-0.5782	0.4371	0.4371
ppi_input_8	-0.5299	-0.6724	1.6377*	1.6377*
ppi_input_9	0.8581	0.7929	-1.1886	-1.1886
ppi_input_10	1.9397**	0.7489	-1.5314*	-1.5314*
ppi_input_11	-0.0728	-0.369	-0.7329	-0.7329
ppi_input_12	-0.4632	-0.193	0.9652*	0.9652*
ppi_output	-0.7807	-1.5523	-1.2171	-1.2171
ppi_output_1	4.0611**	2.7299*	3.9776**	3.9776**
ppi_output_2	-0.2981	-1.0092	-3.2477**	-3.2477**
ppi_output_3	0.2439	0.0612	0.604	0.604
ppi_output_4	-0.9725	-1.4704	1.3905	1.3905
ppi_output_5	-0.1317	1.0491	-3.8278**	-3.8278**
ppi_output_6	1.0375	-0.5571	3.4734**	3.4734**
ppi_output_7	-0.9682	0.5261	1.5357	1.5357
ppi_output_8	-1.024	-0.7159	-4.4372***	-4.4372***
ppi_output_9	-0.5536	-0.0871	1.8558	1.8558
ppi_output_10	0.6279	0.2691	2.5278	2.5278
ppi_output_11	1.6459	1.8229	-2.1766	-2.1766
ppi_output_12	-1.4905	-0.3133	0.8945	0.8945

Transport/Travel Services			
with sales		full sample	
		FE	RE
R		1.5841	1.5842
R_1		-0.0158	-0.0153
R_2		0.044	0.0443
R_3		-0.0671	-0.0667
R_4		-0.0172	-0.0168
R_5		0.0734	0.0734
R_6		-0.1167*	-0.1165*
R_7		0.1868***	0.1869***
R_8		-0.0488	-0.0488
R_9		0.0403	0.0403
R_10		0.0746	0.0741
R_11		-0.0433	-0.0438
R_12		0.0323	0.0326
dummy_increase		16.797***	16.7966***
dummy_independent		23.517***	23.5172***
dummy_nine_ending		-2.0941	-2.0946
dummy_sales		-4.0037	-4.0032
dummy_zero_ending		9.4043***	9.404***

expenditure_Alcoholic	-0.0005	-0.0004
expenditure_Communication	-0.0039	-0.0039
expenditure_Energy	-0.0002	0
expenditure_Housing_services	-0.014*	-0.0143*
expenditure_Miscellaneous_services	0.002***	0.0024***
expenditure_Non_energy_goods	-0.0005	-0.0009
expenditure_Recreational_personal_services	0.0014**	0.0011**
expenditure_Transport_travel_services	-0.0005	-0.0008
inflation_1	109.15	109.1498
inflation_2	544.54***	544.5396***
inflation_3	112.26	112.2598
inflation_4	211.92	211.9203
inflation_5	110.48	110.4802
inflation_6	85.055	85.0553
inflation_7	-67.334	-67.3337
inflation_8	-86.026	-86.0265
inflation_9	56.675	56.6746
inflation_10	-360.6*	-360.5996*
inflation_11	128.73	128.7299
inflation_12	-131.33	-131.33
location_East_Anglia	-8.9187***	-8.9192***
location_East_Midlands	-17.827***	-17.827***
location_NI	12.67***	12.6704***
location_NW	-17.98***	-17.9798***
location_North	-7.6699***	-7.6695***
location_SE	-9.3987***	-9.3987***
location_SW	-15.7***	-15.6997***
location_Scotland	-16.532***	-16.5318***
location_Wales	-14.391***	-14.3906***
location_West_Midlands	-15.885***	-15.8845***
location_Yorks_Humber	-11.489***	-11.4887***
market_share	-1.2393***	-1.2394***
month_APR	11.068***	11.068***
month_AUG	9.4411**	9.4409**
month_DEC	11.856***	11.8557***
month_FEB	20.045***	20.045***
month_JUL	9.3033***	9.303***
month_JUN	9.2237***	9.2241***
month_MAR	20.782***	20.7815***
month_MAY	10.242***	10.2422***
month_NOV	5.3852	5.3857
month_OCT	8.0113**	8.0112**
month_SEP	8.1937***	8.194***

oil	3.9255	3.9258
oil_1	0.0978*	0.0983*
oil_2	0.1259**	0.1254**
oil_3	0.0774	0.0773
oil_4	0.0941*	0.0936*
oil_5	0.0131	0.0133
oil_6	0.1284**	0.1282**
oil_7	0.1171**	0.1176**
oil_8	0.05	0.0497
oil_9	0.1011*	0.101*
oil_10	0.1129**	0.1129**
oil_11	0.0568	0.0572
oil_12	0.0039	0.0043
ppi_input	-0.2191	-0.2186
ppi_input_1	0.8307	0.8305
ppi_input_2	-1.4188**	-1.4191**
ppi_input_3	0.2468	0.2469
ppi_input_4	0.4001	0.4002
ppi_input_5	0.1287	0.1287
ppi_input_6	-0.6048	-0.6047
ppi_input_7	0.0594	0.0596
ppi_input_8	-0.1724	-0.1728
ppi_input_9	0.2397	0.2396
ppi_input_10	-0.2313	-0.2316
ppi_input_11	0.262	0.2616
ppi_input_12	0.3985	0.3984
ppi_output	-1.3002*	-1.2999*
ppi_output_1	-0.1179	-0.1178
ppi_output_2	1.1675	1.1672
ppi_output_3	-0.847	-0.8472
ppi_output_4	1.1991	1.1992
ppi_output_5	-1.6419	-1.6423
ppi_output_6	1.7181	1.7179
ppi_output_7	-0.5633	-0.5636
ppi_output_8	0.1803	0.18
ppi_output_9	-0.146	-0.1465
ppi_output_10	0.5126	0.5129
ppi_output_11	-0.2155	-0.215
ppi_output_12	-0.3326	-0.3323

Transport/Travel services Pre- and Post-crisis

with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	40.086	40.086	4.8182	4.8182
R_1	0.1358	0.1358	-0.0115	-0.0115
R_2	0.3512	0.3512	0.0947	0.0947
R_3	-0.2887	-0.2887	-0.0171	-0.0171
R_4	0.2703	0.2703	0.0657	0.0657
R_5	-0.343	-0.343	0.1577	0.1577
R_6	0.304	0.304	-0.1179	-0.1179
R_7	0.113	0.113	0.3617***	0.3617***
R_8	0.5883*	0.5883*	-0.0757	-0.0757
R_9	-0.142	-0.142	0.0898	0.0898
R_10	0.5322**	0.5322**	0.0475	0.0475
R_11	-0.2114	-0.2114	0.0055	0.0055
R_12	0.5759**	0.5759**	0.0794	0.0794
dummy_increase	13.347***	13.347***	19.57***	19.57***
dummy_independent	21.714***	21.714***	25.54***	25.54***
dummy_nine_ending	-3.8038	-3.8038	-0.5088	-0.5088
dummy_sales	-6.9475*	-6.9475*	-2.4835	-2.4835
dummy_zero_ending	6.4465***	6.4465***	11.728***	11.728***
expenditure_Alcoholic	0.0023	0.0023	-0.0046	-0.0046
expenditure_Communication	0.0313***	0.0313***	-0.0047	-0.0047
expenditure_Energy	-0.0052***	-0.0052***	0.0016*	0.0016*
expenditure_Housing_services	-0.0438**	-0.0438**	0.0046	0.0046
expenditure_Miscellaneous_services	0.0031	0.0031	0.0016	0.0016
expenditure_Non_energy_goods	0.0001	0.0001	-0.0011	-0.0011
expenditure_Recreational_personal_services	-0.0073	-0.0073	0.0003	0.0003
expenditure_Transport_travel_services	0.007	0.007	0.0023	0.0023
inflation_1	1323**	1323**	-359.07	-359.07
inflation_2	1599.1***	1599.1***	-6.9564	-6.9564
inflation_3	1128.2*	1128.2*	-610.23	-610.23
inflation_4	691.18	691.18	-381.36	-381.36
inflation_5	1441.8*	1441.8*	-537.81	-537.81
inflation_6	610.62	610.62	-358.83	-358.83
inflation_7	141.48	141.48	-236.22	-236.22
inflation_8	-850.52	-850.52	-200.77	-200.77
inflation_9	-150.97	-150.97	-135.15	-135.15
inflation_10	-35.921	-35.921	-797.36**	-797.36**
inflation_11	315.07	315.07	-126.98	-126.98
inflation_12	49.829	49.829	-260.42	-260.42
location_East_Anglia	-10.511***	-10.511***	-8.6215***	-8.6215***
location_East_Midlands	-11.706***	-11.706***	-22.569***	-22.569***
location_NI	5.2902*	5.2902*	17.482***	17.482***

location_NW	-17.746***	-17.746***	-18.074***	-18.074***
location_North	-7.0979***	-7.0979***	-8.4948***	-8.4948***
location_SE	-6.9462***	-6.9462***	-12.429***	-12.429***
location_SW	-13.644***	-13.644***	-18.014***	-18.014***
location_Scotland	-16.445***	-16.445***	-16.656***	-16.656***
location_Wales	-12.958***	-12.958***	-15.774***	-15.774***
location_West_Midlands	-14.11***	-14.11***	-17.597***	-17.597***
location_Yorks_Humber	-16.952***	-16.952***	-7.6891***	-7.6891***
market_share	1.0856***	1.0856***	-2.3155***	-2.3155***
month_APR	9.0224	9.0224	6.341	6.341
month_AUG	-4.1842	-4.1842	11.706*	11.706*
month_DEC	24.478**	24.478**	16.16***	16.16***
month_FEB	18.346**	18.346**	10.45	10.45
month_JUL	-4.86	-4.86	12.701**	12.701**
month_JUN	6.1611	6.1611	10.078*	10.078*
month_MAR	12.083*	12.083*	17.13***	17.13***
month_MAY	6.4104	6.4104	11.328**	11.328**
month_NOV	19.666**	19.666**	13.871**	13.871**
month_OCT	6.18	6.18	16.547***	16.547***
month_SEP	-3.3165	-3.3165	11.618**	11.618**
oil	-9.4567	-9.4567	-0.6818	-0.6818
oil_1	-0.119	-0.119	0.0619	0.0619
oil_2	-0.0559	-0.0559	0.0785	0.0785
oil_3	-0.008	-0.008	0.1248	0.1248
oil_4	-0.0705	-0.0705	0.0125	0.0125
oil_5	-0.0946	-0.0946	-0.0315	-0.0315
oil_6	0.0153	0.0153	0.1248	0.1248
oil_7	0.1923	0.1923	-0.0341	-0.0341
oil_8	0.0109	0.0109	-0.0524	-0.0524
oil_9	-0.0049	-0.0049	0.0483	0.0483
oil_10	0.0147	0.0147	-0.0047	-0.0047
oil_11	0.0757	0.0757	0.1	0.1
oil_12	-0.0818	-0.0818	-0.0891	-0.0891
ppi_input	0.4655	0.4655	-0.0626	-0.0626
ppi_input_1	2.1322	2.1322	0.8293	0.8293
ppi_input_2	-3.1559**	-3.1559**	-1.3062	-1.3062
ppi_input_3	-0.2543	-0.2543	-0.3019	-0.3019
ppi_input_4	1.3155	1.3155	1.4089	1.4089
ppi_input_5	-0.1456	-0.1456	0.9574	0.9574
ppi_input_6	-1.756	-1.756	-0.9265	-0.9265
ppi_input_7	-1.0716	-1.0716	0.1363	0.1363
ppi_input_8	-0.8924	-0.8924	0.0897	0.0897
ppi_input_9	2.784**	2.784**	-0.4008	-0.4008

ppi_input_10	-2.4928*	-2.4928*	-0.4167	-0.4167
ppi_input_11	1.3538	1.3538	0.2921	0.2921
ppi_input_12	1.0659	1.0659	1.1765	1.1765
ppi_output	-2.6223	-2.6223	-0.7513	-0.7513
ppi_output_1	1.4299	1.4299	-0.484	-0.484
ppi_output_2	1.1616	1.1616	1.3865	1.3865
ppi_output_3	-2.4825	-2.4825	0.8993	0.8993
ppi_output_4	3.2445	3.2445	-0.6212	-0.6212
ppi_output_5	-0.0144	-0.0144	-2.2716	-2.2716
ppi_output_6	1.0031	1.0031	2.618	2.618
ppi_output_7	1.4247	1.4247	-1.5555	-1.5555
ppi_output_8	-0.5456	-0.5456	0.3495	0.3495
ppi_output_9	1.2283	1.2283	-0.4697	-0.4697
ppi_output_10	0.3832	0.3832	1.8353	1.8353
ppi_output_11	-2.4828	-2.4828	-0.9524	-0.9524
ppi_output_12	-1.4671	-1.4671	-0.7025	-0.7025

Transport/Travel Services			
without sales		full sample	
		FE	RE
R		1.942	1.9417
R_1		-0.0147	-0.0148
R_2		0.0497	0.0497
R_3		-0.0711	-0.0713
R_4		-0.0127	-0.0125
R_5		0.0741	0.0741
R_6		-0.1175*	-0.1171*
R_7		0.1893***	0.1893***
R_8		-0.0464	-0.0464
R_9		0.0378	0.0374
R_10		0.0741	0.074
R_11		-0.039	-0.0392
R_12		0.0361	0.0365
dummy_increase		16.941***	16.9411***
dummy_independent		23.667***	23.6671***
dummy_nine_ending		-2.1896	-2.1899
dummy_zero_ending		9.5022***	9.502***
expenditure_Alcoholic		-0.0003	-0.0006
expenditure_Communication		-0.004	-0.0045
expenditure_Energy		-0.0002	-0.0002
expenditure_Housing_services		-0.0136*	-0.0135*

expenditure_Miscellaneous_services	0.002***	0.0018***
expenditure_Non_energy_goods	-0.0005	-0.0003
expenditure_Recreational_personal_services	0.0014**	0.0013**
expenditure_Transport_travel_services	-0.0005	-0.0006
inflation_1	109.95	109.9499
inflation_2	532.77***	532.7697***
inflation_3	111.7	111.7002
inflation_4	208.29	208.2896
inflation_5	103.16	103.1601
inflation_6	71.738	71.7381
inflation_7	-72.01	-72.0096
inflation_8	-86.638	-86.6385
inflation_9	50.652	50.6522
inflation_10	-370.47*	-370.4701*
inflation_11	129.36	129.36
inflation_12	-121.27	-121.27
location_East_Anglia	-9.38***	-9.3801***
location_East_Midlands	-18.354***	-18.3541***
location_NI	12.404***	12.4041***
location_NW	-18.405***	-18.4052***
location_North	-8.0071***	-8.0069***
location_SE	-9.7482***	-9.7479***
location_SW	-16.041***	-16.0405***
location_Scotland	-16.89***	-16.8902***
location_Wales	-14.77***	-14.7702***
location_West_Midlands	-16.362***	-16.3619***
location_Yorks_Humber	-11.901***	-11.9013***
market_share	-1.2317***	-1.2315***
month_APR	11.015***	11.0153***
month_AUG	9.3802**	9.3807**
month_DEC	11.708***	11.7085***
month_FEB	20.226***	20.2265***
month_JUL	9.3592***	9.3589***
month_JUN	9.1707***	9.1703***
month_MAR	20.869***	20.8686***
month_MAY	10.171***	10.1707***
month_NOV	5.0723	5.0719
month_OCT	7.8906**	7.8904**
month_SEP	8.0894***	8.0892***
oil	3.5839	3.5844
oil_1	0.0923*	0.092*
oil_2	0.1236**	0.1235**
oil_3	0.0783	0.0778

oil_4	0.0892*	0.0887*
oil_5	0.0139	0.0136
oil_6	0.128**	0.1279**
oil_7	0.1173**	0.1168**
oil_8	0.0501	0.0504
oil_9	0.1035*	0.1034*
oil_10	0.1153**	0.1148**
oil_11	0.0563	0.0561
oil_12	-0.0031	-0.003
ppi_input	-0.2378	-0.2376
ppi_input_1	0.9081	0.9081
ppi_input_2	-1.441**	-1.4408**
ppi_input_3	0.2205	0.2206
ppi_input_4	0.4086	0.4088
ppi_input_5	0.1621	0.1622
ppi_input_6	-0.6635	-0.6639
ppi_input_7	0.0749	0.0753
ppi_input_8	-0.1786	-0.179
ppi_input_9	0.2066	0.2062
ppi_input_10	-0.2546	-0.2551
ppi_input_11	0.3063	0.3068
ppi_input_12	0.4122	0.4126
ppi_output	-1.3304*	-1.3299*
ppi_output_1	-0.0466	-0.0463
ppi_output_2	1.1022	1.1027
ppi_output_3	-0.8155	-0.8153
ppi_output_4	1.2061	1.2065
ppi_output_5	-1.7248	-1.7249
ppi_output_6	1.8745	1.8748
ppi_output_7	-0.7228	-0.723
ppi_output_8	0.2931	0.2929
ppi_output_9	-0.1384	-0.1379
ppi_output_10	0.5128	0.513
ppi_output_11	-0.2694	-0.2696
ppi_output_12	-0.3049	-0.305

Transport/Travel services Pre- and Post-crisis				
without sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	41.068*	41.068*	4.2922	4.2922
R_1	0.1502	0.1502	-0.0109	-0.0109

R_2	0.3469	0.3469	0.0969	0.0969
R_3	-0.2746	-0.2746	-0.0263	-0.0263
R_4	0.2577	0.2577	0.0655	0.0655
R_5	-0.3461	-0.3461	0.1652*	0.1652*
R_6	0.2898	0.2898	-0.1291	-0.1291
R_7	0.116	0.116	0.368***	0.368***
R_8	0.5774*	0.5774*	-0.0646	-0.0646
R_9	-0.131	-0.131	0.0823	0.0823
R_10	0.5248**	0.5248**	0.0463	0.0463
R_11	-0.1989	-0.1989	0.0168	0.0168
R_12	0.5804**	0.5804**	0.0785	0.0785
dummy_increase	13.579***	13.579***	19.659***	19.659***
dummy_independent	21.885***	21.885***	25.679***	25.679***
dummy_nine_ending	-4.0573	-4.0573	-0.5221	-0.5221
dummy_zero_ending	6.552***	6.552***	11.828***	11.828***
expenditure_Alcoholic	0.0018	0.0018	-0.0049	-0.0049
expenditure_Communication	0.0311***	0.0311***	-0.0052	-0.0052
expenditure_Energy	-0.0054***	-0.0054***	0.0017*	0.0017*
expenditure_Housing_services	-0.045**	-0.045**	0.0042	0.0042
expenditure_Miscellaneous_services	0.0034	0.0034	0.0016	0.0016
expenditure_Non_energy_goods	0.0007	0.0007	-0.001	-0.001
expenditure_Recreational_personal_services	-0.0078	-0.0078	0.0004	0.0004
expenditure_Transport_travel_services	0.0065	0.0065	0.0021	0.0021
inflation_1	1308.5**	1308.5**	-379.79	-379.79
inflation_2	1565.8***	1565.8***	-4.8811	-4.8811
inflation_3	1115.5*	1115.5*	-597.41	-597.41
inflation_4	675.73	675.73	-374.07	-374.07
inflation_5	1398.5*	1398.5*	-519.83	-519.83
inflation_6	615.76	615.76	-349.45	-349.45
inflation_7	116.87	116.87	-219.39	-219.39
inflation_8	-874	-874	-160.68	-160.68
inflation_9	-167.04	-167.04	-102.39	-102.39
inflation_10	-44.102	-44.102	-781.16**	-781.16**
inflation_11	302.78	302.78	-84.817	-84.817
inflation_12	7.3052	7.3052	-169.09	-169.09
location_East_Anglia	-10.927***	-10.927***	-9.121***	-9.121***
location_East_Midlands	-12.267***	-12.267***	-23.028***	-23.028***
location_NI	5.0286	5.0286	17.15***	17.15***
location_NW	-18.292***	-18.292***	-18.416***	-18.416***
location_North	-7.5171***	-7.5171***	-8.7419***	-8.7419***
location_SE	-7.2328***	-7.2328***	-12.842***	-12.842***
location_SW	-13.96***	-13.96***	-18.391***	-18.391***
location_Scotland	-16.828***	-16.828***	-17.018***	-17.018***

location_Wales	-13.387***	-13.387***	-16.101***	-16.101***
location_West_Midlands	-14.588***	-14.588***	-18.093***	-18.093***
location_Yorks_Humber	-17.537***	-17.537***	-8.0212***	-8.0212***
market_share	1.0795***	1.0795***	-2.3034***	-2.3034***
month_APR	9.6746	9.6746	5.9458	5.9458
month_AUG	-2.6498	-2.6498	11.192*	11.192*
month_DEC	24.322**	24.322**	15.781***	15.781***
month_FEB	18.787**	18.787**	9.58	9.58
month_JUL	-3.5045	-3.5045	12.77**	12.77**
month_JUN	6.9024	6.9024	10.012	10.012
month_MAR	12.467*	12.467*	16.932***	16.932***
month_MAY	7.3882	7.3882	10.95**	10.95**
month_NOV	19.353*	19.353*	13.19*	13.19*
month_OCT	6.4241	6.4241	16.299***	16.299***
month_SEP	-2.4807	-2.4807	11.591**	11.591**
oil	-9.3082	-9.3082	-0.8192	-0.8192
oil_1	-0.1203	-0.1203	0.0633	0.0633
oil_2	-0.0492	-0.0492	0.0794	0.0794
oil_3	-0.005	-0.005	0.1356	0.1356
oil_4	-0.0719	-0.0719	0.0128	0.0128
oil_5	-0.093	-0.093	-0.0316	-0.0316
oil_6	0.0174	0.0174	0.13	0.13
oil_7	0.1949	0.1949	-0.0302	-0.0302
oil_8	0.0114	0.0114	-0.0575	-0.0575
oil_9	0.0016	0.0016	0.0539	0.0539
oil_10	0.016	0.016	-0.0037	-0.0037
oil_11	0.0757	0.0757	0.0957	0.0957
oil_12	-0.0817	-0.0817	-0.1004	-0.1004
ppi_input	0.4591	0.4591	-0.1938	-0.1938
ppi_input_1	2.159	2.159	1.0731	1.0731
ppi_input_2	-3.2159**	-3.2159**	-1.3092	-1.3092
ppi_input_3	-0.2514	-0.2514	-0.4395	-0.4395
ppi_input_4	1.3395	1.3395	1.348	1.348
ppi_input_5	-0.0778	-0.0778	1.2674	1.2674
ppi_input_6	-1.7996	-1.7996	-1.1741	-1.1741
ppi_input_7	-1.101	-1.101	0.1663	0.1663
ppi_input_8	-0.8275	-0.8275	0.0133	0.0133
ppi_input_9	2.5968*	2.5968*	-0.4146	-0.4146
ppi_input_10	-2.4727*	-2.4727*	-0.3934	-0.3934
ppi_input_11	1.4075	1.4075	0.4021	0.4021
ppi_input_12	1.1044	1.1044	1.0844	1.0844
ppi_output	-2.7559	-2.7559	-0.6602	-0.6602
ppi_output_1	1.6619	1.6619	-0.5138	-0.5138

ppi_output_2	0.9929	0.9929	1.1913	1.1913
ppi_output_3	-2.3262	-2.3262	1.1681	1.1681
ppi_output_4	3.1664	3.1664	-0.6422	-0.6422
ppi_output_5	0.0139	0.0139	-2.7885	-2.7885
ppi_output_6	0.9269	0.9269	3.2518	3.2518
ppi_output_7	1.5125	1.5125	-1.9392	-1.9392
ppi_output_8	-0.5301	-0.5301	0.5705	0.5705
ppi_output_9	1.3586	1.3586	-0.413	-0.413
ppi_output_10	0.2306	0.2306	1.7459	1.7459
ppi_output_11	-2.3751	-2.3751	-1.1362	-1.1362
ppi_output_12	-1.4926	-1.4926	-0.503	-0.503

Communication Services			
with sales		full sample	
		FE	RE
R		12.659	12.658
R_1		0.2317***	0.2318***
R_2		-0.1145	-0.115
R_3		-0.1056	-0.106
R_4		0.154*	0.1539*
R_5		-0.0763	-0.076
R_6		0.3145***	0.3142***
R_7		-0.176**	-0.1764**
R_8		0.2629***	0.2626***
R_9		0.3491***	0.3495***
R_10		-0.0354	-0.0351
R_11		-0.2312***	-0.2311***
R_12		0.16*	0.1602*
dummy_increase		22.708***	22.708***
dummy_independent		-2.2645	-2.2644
dummy_nine_ending		5.085***	5.0847***
dummy_sales		-0.2454	-0.2458
dummy_zero_ending		-2.4631*	-2.4632*
expenditure_Alcoholic		0.0012	0.0012
expenditure_Communication		-0.0015	-0.0016
expenditure_Energy		-0.0064***	-0.0069***
expenditure_Housing_services		0.0114	0.0112
expenditure_Miscellaneous_services		0.0039***	0.0035***
expenditure_Non_energy_goods		0.0051***	0.0048***
expenditure_Recreational_personal_services		-0.007***	-0.007***
expenditure_Transport_travel_services		5.32E-05	5.32E-05

inflation_1	-487.89	-487.89
inflation_2	702.08**	702.0797**
inflation_3	-531.88	-531.88
inflation_4	692.73**	692.7295**
inflation_5	-1502.2***	-1502.2***
inflation_6	840.91***	840.9102***
inflation_7	-233.79	-233.79
inflation_8	-42.203	-42.203
inflation_9	-1032.3***	-1032.3003***
inflation_10	-611.69**	-611.6895**
inflation_11	-1474.5***	-1474.4999***
inflation_12	38.416	38.4159
location_East_Anglia	0.8489	0.8484
location_East_Midlands	-3.6224*	-3.6223*
location_NI	-1.9803	-1.9799
location_NW	-1.5351	-1.5348
location_North	0.1547	0.1552
location_SE	4.224**	4.2236**
location_SW	-0.8067	-0.8071
location_Scotland	-1.2701	-1.27
location_Wales	-2.5254	-2.5249
location_West_Midlands	1.9632	1.9627
location_Yorks_Humber	-0.0952	-0.0955
market_share	10.927***	10.9266***
month_APR	-37.25***	-37.25***
month_AUG	-44.134***	-44.1345***
month_DEC	-31.603***	-31.6027***
month_FEB	-22.644***	-22.6438***
month_JUL	-20.129***	-20.1286***
month_JUN	-56.985***	-56.9848***
month_MAR	-18.684***	-18.6835***
month_MAY	-28.404***	-28.4039***
month_NOV	-19.158***	-19.1578***
month_OCT	-32.215***	-32.2155***
month_SEP	-17.104***	-17.104***
oil	-3.601	-3.6011
oil_1	0.2508***	0.2506***
oil_2	0.226***	0.2263***
oil_3	0.2666***	0.2666***
oil_4	0.0341	0.0342
oil_5	0.0899	0.0898
oil_6	-0.3467***	-0.3464***
oil_7	-0.1677**	-0.1673**

oil_8	-0.3719***	-0.3714***
oil_9	-0.0025	-0.0023
oil_10	-0.0984	-0.0981
oil_11	0.5527***	0.5528***
oil_12	0.0746	0.0749
ppi_input	1.3203	1.32
ppi_input_1	0.3292	0.3293
ppi_input_2	-2.2306**	-2.2304**
ppi_input_3	-0.1333	-0.133
ppi_input_4	2.8435**	2.8434**
ppi_input_5	-0.9489	-0.9487
ppi_input_6	-0.3966	-0.3962
ppi_input_7	-3.4513***	-3.4508***
ppi_input_8	4.001***	4.0008***
ppi_input_9	-1.5537	-1.5532
ppi_input_10	0.2443	0.2448
ppi_input_11	-3.3559***	-3.3558***
ppi_input_12	3.5697***	3.5702***
ppi_output	-1.2611	-1.2613
ppi_output_1	-0.4243	-0.4243
ppi_output_2	0.8884	0.8883
ppi_output_3	-1.5192	-1.5188
ppi_output_4	-0.9864	-0.9868
ppi_output_5	2.4458	2.4462
ppi_output_6	4.7019**	4.7017**
ppi_output_7	-4.6878**	-4.6879**
ppi_output_8	5.2458**	5.2462**
ppi_output_9	-4.4785*	-4.478*
ppi_output_10	-0.0269	-0.0273
ppi_output_11	3.3374	3.3373
ppi_output_12	-3.4261***	-3.4261***

Communication services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	37.041	65.358***	44.075***	44.075***
R_1	-0.1418	-0.2194	0.1796	0.1796
R_2	0.4034	0.5979**	-0.0612	-0.0612
R_3	0.5634**	0.6045**	0.3765**	0.3765**
R_4	-0.4872*	-0.5026**	0.1889	0.1889
R_5	-0.6309**	-0.6236**	0.2919**	0.2919**

R_6	-0.8818***	-0.6038**	0.7102***	0.7102***
R_7	-0.7638**	-0.5168*	-0.5654***	-0.5654***
R_8	0.6466*	0.7742**	0.6718***	0.6718***
R_9	0.933***	1.3041***	0.3282**	0.3282**
R_10	0.0429	-0.2317	-0.3536***	-0.3536***
R_11	-0.8721***	-0.5565**	0.0137	0.0137
R_12	0.2213	0.1805	0.1535	0.1535
dummy_increase	19.32***	14.645***	24.577***	24.577***
dummy_independent	-1.1202	0.7099	3.1718	3.1718
dummy_nine_ending	7.1405***	7.3998***	4.1427***	4.1427***
dummy_sales	0.0875	-2.0486*	-1.4807	-1.4807
dummy_zero_ending	16.682***	15.42***	-7.1181***	-7.1181***
expenditure_Alcoholic	-0.0248***	-0.0144*	0.057***	0.057***
expenditure_Communication	-0.0003	0.0078	0.052***	0.052***
expenditure_Energy	0.0013	-0.0005	-0.0053***	-0.0053***
expenditure_Housing_services	0.0321	0.0411*	0.0741**	0.0741**
expenditure_Miscellaneous_services	-0.0088***	-0.0103***	0.0116***	0.0116***
expenditure_Non_energy_goods	0.0086	0.0026	-0.0148***	-0.0148***
expenditure_Recreational_personal_services	-0.0061	-0.0025	-0.0007	-0.0007
expenditure_Transport_travel_services	0.0017	0.007	0.0049*	0.0049*
inflation_1	1265.7**	1218.1**	-2661.2***	-2661.2***
inflation_2	110.93	719.24	-2579.2***	-2579.2***
inflation_3	-548.87	-68.801	-2536.4***	-2536.4***
inflation_4	952.86	1731.2**	-1831.7***	-1831.7***
inflation_5	-1018.4	-443.83	-3464.7***	-3464.7***
inflation_6	1828.1**	2940.2***	-1003.6	-1003.6
inflation_7	1051.3	1409.7**	-341.48	-341.48
inflation_8	2516.7***	2988.7***	-1507.2**	-1507.2**
inflation_9	-235.58	-816.59	-1539.4**	-1539.4**
inflation_10	637.9	1119.1*	-2211.9***	-2211.9***
inflation_11	1628.7***	1456.2***	-5287.3***	-5287.3***
inflation_12	-1397.7**	-1141.5**	-659.54	-659.54
location_East_Anglia	-0.1736	0.0016	5.2447*	5.2447*
location_East_Midlands	-3.3459	-3.1374	-0.2914	-0.2914
location_NI	-7.8145***	-9.4112**	3.701	3.701
location_NW	-1.6448	0.6641	2.4759	2.4759
location_North	0.89	3.5385	2.9371	2.9371
location_SE	3.5238*	3.4529	8.1699***	8.1699***
location_SW	-1.8794	-1.3795	2.6584	2.6584
location_Scotland	3.5014	2.9553	-0.1314	-0.1314
location_Wales	-3.7398	-2.8017	1.4685	1.4685
location_West_Midlands	0.9354	-0.6585	5.4616*	5.4616*
location_Yorks_Humber	0.216	1.8194	3.1469	3.1469

market_share	9.3023***	27.869***	12.368***	12.368***
month_APR	-14.556	-30.955***	-41.325***	-41.325***
month_AUG	19.898	-8.3293	-65.02***	-65.02***
month_DEC	17.774	10.819	-70.482***	-70.482***
month_FEB	26.536***	14.96	-27.171**	-27.171**
month_JUL	19.064	-2.1504	-40.098***	-40.098***
month_JUN	-5.5068	-23.868*	-80.187***	-80.187***
month_MAR	5.5303	-5.7702	-38.399***	-38.399***
month_MAY	19.181*	9.422	-57.67***	-57.67***
month_NOV	21.125*	22.916**	-49.174***	-49.174***
month_OCT	6.8668	-13.768	-54.261***	-54.261***
month_SEP	34.157**	17.435	-53.441***	-53.441***
oil	33.112**	39.403***	-75.418***	-75.418***
oil_1	0.2858**	0.259**	0.0077	0.0077
oil_2	0.4218***	0.2076	-0.0306	-0.0306
oil_3	0.4421***	0.1164	-0.2429	-0.2429
oil_4	0.1924	-0.0775	-0.1839	-0.1839
oil_5	0.5555***	0.3916***	-0.6033***	-0.6033***
oil_6	-0.0378	-0.1107	-1.2273***	-1.2273***
oil_7	-0.1553	-0.2221	-0.3997**	-0.3997**
oil_8	0.2147	0.0868	-0.9174***	-0.9174***
oil_9	0.666***	0.7291***	-0.6961***	-0.6961***
oil_10	-0.0428	-0.2694*	-0.3452**	-0.3452**
oil_11	0.2951**	0.1463	-0.1396	-0.1396
oil_12	-0.1147	-0.211	-0.156	-0.156
ppi_input	-1.2501	-0.8965	5.5691***	5.5691***
ppi_input_1	2.329	2.6093	-0.8617	-0.8617
ppi_input_2	-4.7195**	-4.3855**	-1.5358	-1.5358
ppi_input_3	3.1587*	4.3515**	-1.7853	-1.7853
ppi_input_4	1.2049	0.7175	-1.8673	-1.8673
ppi_input_5	-0.632	-0.8884	4.1087*	4.1087*
ppi_input_6	3.3413*	-0.0759	3.1066	3.1066
ppi_input_7	0.0203	1.7072	-7.6475***	-7.6475***
ppi_input_8	-1.9819	-1.4235	4.0185*	4.0185*
ppi_input_9	-1.2727	-1.7584	-0.5231	-0.5231
ppi_input_10	1.9257	3.4417**	2.6944	2.6944
ppi_input_11	-2.6665*	-3.4219**	-4.1355*	-4.1355*
ppi_input_12	1.7366	2.1414*	4.4201***	4.4201***
ppi_output	-7.224***	-6.3508***	-4.4127	-4.4127
ppi_output_1	10.655***	11.049***	-0.6765	-0.6765
ppi_output_2	-4.8955*	-4.6706*	7.7999*	7.7999*
ppi_output_3	0.8222	-0.1828	-3.0758	-3.0758
ppi_output_4	-4.5456	-3.3854	8.4047*	8.4047*

ppi_output_5	5.3942*	7.3255***	-7.2855	-7.2855
ppi_output_6	-2.3328	-2.6518	0.8337	0.8337
ppi_output_7	-0.4128	-3.2102	-2.4676	-2.4676
ppi_output_8	-4.563	-3.0022	5.0195	5.0195
ppi_output_9	0.4953	0.007	-8.448**	-8.448**
ppi_output_10	3.443	3.7427	2.6334	2.6334
ppi_output_11	-0.8631	-2.3371	5.6355	5.6355
ppi_output_12	1.7946	2.0823	-7.6466***	-7.6466***

Communication Services			
without sales		full sample	
		FE	RE
R		15.855	15.8553
R_1		0.2887***	0.2882***
R_2		-0.1844*	-0.1847*
R_3		-0.2874***	-0.2878***
R_4		0.1177	0.1172
R_5		-0.0698	-0.0702
R_6		0.2458**	0.2454**
R_7		-0.4066***	-0.4062***
R_8		0.3491***	0.3492***
R_9		0.1337	0.1339
R_10		0.0562	0.0567
R_11		-0.2638**	-0.2634**
R_12		0.0065	0.0067
dummy_increase		22.196***	22.196***
dummy_independent		-3.8339**	-3.8336**
dummy_nine_ending		4.393***	4.3934***
dummy_zero_ending		-4.3076***	-4.3078***
expenditure_Alcoholic		0.0052*	0.005*
expenditure_Communication		0.0082	0.0086
expenditure_Energy		-0.0074***	-0.007***
expenditure_Housing_services		0.0194	0.0197
expenditure_Miscellaneous_services		0.0046***	0.0041***
expenditure_Non_energy_goods		0.0046***	0.0051***
expenditure_Recreational_personal_services		-0.0089***	-0.0085***
expenditure_Transport_travel_services		0.0014	0.0013
inflation_1		-1064.4***	-1064.4001***
inflation_2		213.9	213.9
inflation_3		-989.36**	-989.3602**
inflation_4		862.74**	862.7404**

inflation_5	-1914.2***	-1914.1996***
inflation_6	615.42*	615.4203*
inflation_7	-58.196	-58.196
inflation_8	102.36	102.3599
inflation_9	-1527.9***	-1527.8995***
inflation_10	-368.74	-368.74
inflation_11	-1805.5***	-1805.4999***
inflation_12	517.96	517.9602
location_East_Anglia	-0.0504	-0.0509
location_East_Midlands	-4.6943*	-4.6942*
location_NI	-2.9686	-2.9691
location_NW	-3.1285	-3.128
location_North	-1.5651	-1.5654
location_SE	4.2873**	4.2873**
location_SW	-2.0775	-2.0771
location_Scotland	-1.9166	-1.9161
location_Wales	-3.4594	-3.4591
location_West_Midlands	0.8902	0.8903
location_Yorks_Humber	-1.3602	-1.3603
market_share	11.476***	11.4756***
month_APR	-53.278***	-53.278***
month_AUG	-58.532***	-58.5319***
month_DEC	-48.28***	-48.2802***
month_FEB	-34.913***	-34.9127***
month_JUL	-31.716***	-31.7156***
month_JUN	-69.653***	-69.6528***
month_MAR	-32.289***	-32.2886***
month_MAY	-34.734***	-34.7338***
month_NOV	-24.952***	-24.9522***
month_OCT	-47.371***	-47.3712***
month_SEP	-26.306***	-26.3058***
oil	-4.1295	-4.1295
oil_1	0.1408	0.141
oil_2	0.1872**	0.1872**
oil_3	0.3197***	0.3193***
oil_4	0.0466	0.0464
oil_5	0.0302	0.0305
oil_6	-0.3597***	-0.3594***
oil_7	-0.1467	-0.1462
oil_8	-0.6208***	-0.6204***
oil_9	-0.0134	-0.0129
oil_10	-0.1541	-0.1541
oil_11	0.4706***	0.4704***

oil_12	-0.0033	-0.0038
ppi_input	0.0123	0.0121
ppi_input_1	1.3625	1.3622
ppi_input_2	-0.652	-0.6524
ppi_input_3	-1.9416	-1.9412
ppi_input_4	3.2574**	3.2572**
ppi_input_5	0.0812	0.0814
ppi_input_6	-0.574	-0.5744
ppi_input_7	-5.1368***	-5.1363***
ppi_input_8	5.5071***	5.5066***
ppi_input_9	-2.8753**	-2.8749**
ppi_input_10	1.582	1.582
ppi_input_11	-3.062**	-3.062**
ppi_input_12	2.3265***	2.3269***
ppi_output	0.3846	0.3848
ppi_output_1	-0.3106	-0.3104
ppi_output_2	-1.9071	-1.9067
ppi_output_3	2.545	2.5455
ppi_output_4	-3.8736	-3.8736
ppi_output_5	1.3924	1.3919
ppi_output_6	6.3034**	6.3034**
ppi_output_7	-4.7021*	-4.7021*
ppi_output_8	5.2652*	5.2652*
ppi_output_9	-2.4609	-2.4607
ppi_output_10	-4.8222*	-4.8225*
ppi_output_11	6.6328***	6.6333***
ppi_output_12	-3.7574***	-3.7569***

Communication services Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		-10.937	38.197	69.123***	69.123***
R_1		0.0296	0.1549	0.1653	0.1653
R_2		0.4412	0.3735	-0.2689	-0.2689
R_3		0.2665	0.5114	0.3321*	0.3321*
R_4		-0.2276	-0.5756*	0.2188	0.2188
R_5		-0.9777***	-1.0242***	0.288	0.288
R_6		-0.6232	-0.7456**	0.8189***	0.8189***
R_7		-1.5788***	-1.1721***	-0.845***	-0.845***
R_8		1.736***	1.3328***	0.6861***	0.6861***
R_9		-0.1601	0.2641	0.292*	0.292*

R_10	0.3854	0.2312	-0.472***	-0.472***
R_11	-1.2397***	-1.0173***	-0.0372	-0.0372
R_12	0.4655	0.6029**	0.1286	0.1286
dummy_increase	15.424***	11.134***	25.403***	25.403***
dummy_independent	-2.4272	-0.96	2.5862	2.5862
dummy_nine_ending	7.6371***	7.1003***	4.1634**	4.1634**
dummy_zero_ending	15.341***	12.72***	-8.1119***	-8.1119***
expenditure_Alcoholic	-0.0141	-0.0074	0.0906***	0.0906***
expenditure_Communication	0.0059	0.017	0.0903***	0.0903***
expenditure_Energy	0.0035	0.0035	-0.0086***	-0.0086***
expenditure_Housing_services	0.0088	0.0058	0.0614*	0.0614*
expenditure_Miscellaneous_services	-0.0109***	-0.0114***	0.0164***	0.0164***
expenditure_Non_energy_goods	0.0039	-0.0028	-0.024***	-0.024***
expenditure_Recreational_personal_services	-0.004	0.0012	0.0004	0.0004
expenditure_Transport_travel_services	0.0079	0.0121*	0.0095***	0.0095***
inflation_1	1683.7**	1430.5**	-2866.5***	-2866.5***
inflation_2	-697.28	1.4552	-4260.9***	-4260.9***
inflation_3	36.455	165.95	-3538.5***	-3538.5***
inflation_4	605.02	1397.7	-2592.2***	-2592.2***
inflation_5	-15.663	328.29	-5671.5***	-5671.5***
inflation_6	1581.6*	2727.3***	-1939**	-1939**
inflation_7	1833.4**	1642.8*	726.24	726.24
inflation_8	2098.7***	2463.9***	-1024.1	-1024.1
inflation_9	58.309	-355.3	-1716**	-1716**
inflation_10	1234.7	942.33	-2525.9***	-2525.9***
inflation_11	2058.4***	1596.2**	-7314.7***	-7314.7***
inflation_12	-948.96	-1282.2*	-1367.5*	-1367.5*
location_East_Anglia	0.0507	-0.5389	4.4696	4.4696
location_East_Midlands	-3.2636	-2.6292	-1.5068	-1.5068
location_NI	-6.8666**	-8.2538	2.6263	2.6263
location_NW	-3.105	-0.8069	1.7699	1.7699
location_North	0.312	1.3335	1.4766	1.4766
location_SE	3.1526	2.8629	8.726***	8.726***
location_SW	-2.4839	-2.7665	1.7102	1.7102
location_Scotland	4.4555*	3.9339	-0.4904	-0.4904
location_Wales	-2.8734	-1.496	0.5479	0.5479
location_West_Midlands	-0.3733	-1.0417	5.5725	5.5725
location_Yorks_Humber	1.1063	2.8351	1.5563	1.5563
market_share	14.78***	33.805***	10.403***	10.403***
month_APR	-8.8448	-20.72*	-57.848***	-57.848***
month_AUG	13.8	-10.648	-87.719***	-87.719***
month_DEC	20.355	18.704	-102.95***	-102.95***
month_FEB	28.8**	15.767	-14.319	-14.319

month_JUL	7.3017	-8.4749	-65.787***	-65.787***
month_JUN	-4.28	-20.281	-117.7***	-117.7***
month_MAR	-17.308	-24.281**	-55.686***	-55.686***
month_MAY	13.797	6.8991	-79.87***	-79.87***
month_NOV	25.451*	21.993	-75.103***	-75.103***
month_OCT	8.3868	-8.5549	-84.374***	-84.374***
month_SEP	13.758	4.6481	-84.195***	-84.195***
oil	22.606	20.805	-99.19***	-99.19***
oil_1	0.3509**	0.3386**	-0.3101	-0.3101
oil_2	0.4367**	0.3251*	-0.0431	-0.0431
oil_3	0.6583***	0.2249	-0.2538	-0.2538
oil_4	0.4963**	0.229	-0.3066	-0.3066
oil_5	0.6604***	0.5171***	-0.7769***	-0.7769***
oil_6	0.3444*	0.2935*	-1.5345***	-1.5345***
oil_7	-0.0293	0.0331	-0.4464**	-0.4464**
oil_8	0.3188	0.2649	-1.2633***	-1.2633***
oil_9	0.7794***	0.6999***	-1.0254***	-1.0254***
oil_10	0.1104	0.0907	-0.5728***	-0.5728***
oil_11	0.1283	0.0515	-0.3446*	-0.3446*
oil_12	-0.0414	-0.2475	-0.5342**	-0.5342**
ppi_input	-2.7951	-2.1226	7.1424***	7.1424***
ppi_input_1	1.489	1.4708	0.2187	0.2187
ppi_input_2	-2.3897	-3.1815	-1.7512	-1.7512
ppi_input_3	-0.9009	3.1261	-3.9657	-3.9657
ppi_input_4	3.1074	2.733	-3.2583	-3.2583
ppi_input_5	-0.3263	-0.9661	2.7911	2.7911
ppi_input_6	2.9136	-0.4085	8.9542***	8.9542***
ppi_input_7	-0.964	0.3685	-8.7174***	-8.7174***
ppi_input_8	0.1374	0.5203	3.7178	3.7178
ppi_input_9	-1.8231	-1.4102	-2.9471	-2.9471
ppi_input_10	3.1473	0.7415	5.4251**	5.4251**
ppi_input_11	-1.1431	0.9715	-5.3501**	-5.3501**
ppi_input_12	-1.3041	-1.0211	4.7331***	4.7331***
ppi_output	-3.487	-5.0218*	-7.797**	-7.797**
ppi_output_1	9.2483***	11.454***	-0.0552	-0.0552
ppi_output_2	-5.637*	-4.7876	9.4517*	9.4517*
ppi_output_3	1.5716	-2.4732	0.6848	0.6848
ppi_output_4	-6.2648*	-4.2229	9.5049*	9.5049*
ppi_output_5	5.6268	7.2886**	-5.8192	-5.8192
ppi_output_6	-2.8912	-4.6679	-5.6114	-5.6114
ppi_output_7	1.057	-1.2833	-5.2765	-5.2765
ppi_output_8	-1.7895	-1.5638	8.7611	8.7611
ppi_output_9	-4.6471	-0.8833	-7.6733	-7.6733

ppi_output_10	6.9575*	5.3659	-2.2692	-2.2692
ppi_output_11	-4.6058	-5.7044	12.499**	12.499**
ppi_output_12	5.7321*	6.106**	-11.689***	-11.689***

Recreational/Personal Services			
	with sales	full sample	
		FE	RE
R		-3.9581*	-2.4832
R_1		-0.0074	-0.0141
R_2		0.0003	0.0019
R_3		-0.0139	-0.0097
R_4		-0.0088	-0.0211
R_5		0.012	0.0266
R_6		-0.0874***	-0.0711***
R_7		0.0611***	0.0524***
R_8		-0.0317	-0.0302
R_9		0.0312	0.024
R_10		-0.051**	-0.0182
R_11		0.0363	0.0255
R_12		-0.0805***	-0.0252
dummy_increase		13.625***	18.16***
dummy_independent		8.2295***	10.061***
dummy_nine_ending		8.845***	0.028
dummy_sales		5.4664***	2.4596***
dummy_zero_ending		9.0346***	3.3633***
expenditure_Alcoholic		0.0064***	-0.0004
expenditure_Communication		-0.0114***	-0.0032***
expenditure_Energy		-0.0001	-3.5E-05
expenditure_Housing_services		0.0057**	0.01***
expenditure_Miscellaneous_services		0.0015***	-0.0002
expenditure_Non_energy_goods		0.0002	0.0003
expenditure_Recreational_personal_services		0.0005**	8.96E-05
expenditure_Transport_travel_services		-0.002***	-0.0004
inflation_1		-285.7***	-156.7**
inflation_2		16.903	89.754
inflation_3		-196.06***	-57.335
inflation_4		-306.19***	-90.284
inflation_5		-73.903	-67.234
inflation_6		-50.241	31.026
inflation_7		-127.68*	-72.79
inflation_8		-96.241	-72.507

inflation_9	28.294	-36.269
inflation_10	-39.266	-88.982
inflation_11	-11.089	-50.545
inflation_12	-33.443	35.771
location_East_Anglia	-4.0643***	-3.4606***
location_East_Midlands	-6.3786***	-4.2001***
location_NI	-8.0189***	-3.2031**
location_NW	-5.5542***	-0.0327
location_North	-8.5512***	-4.1207***
location_SE	0.1133	0.1786
location_SW	-7.161***	-5.2165***
location_Scotland	-2.4257***	-1.1449
location_Wales	-7.6639***	-4.4006***
location_West_Midlands	-2.5792***	-0.7892
location_Yorks_Humber	0.3378	-0.4984
market_share	2.9492***	9.006***
month_APR	-1.9184*	-2.355**
month_AUG	5.2273***	-0.395
month_DEC	-0.0681	-0.5068
month_FEB	5.3244***	3.107***
month_JUL	4.7151***	0.6839
month_JUN	1.8119	-1.4222
month_MAR	3.2129***	1.0088
month_MAY	-1.7968*	-1.6303*
month_NOV	-3.7319***	-0.755
month_OCT	-0.4274	-0.0291
month_SEP	2.8295***	0.9408
oil	6.8809***	2.6317
oil_1	0.0983***	0.0581***
oil_2	0.1217***	0.0744***
oil_3	0.023	0.0118
oil_4	0.0974***	0.0714***
oil_5	0.0144	0.0275*
oil_6	0.0668***	0.0622***
oil_7	0.0437**	0.0494***
oil_8	0.0451**	0.0333**
oil_9	0.0226	0.0523***
oil_10	-0.0456**	0.0011
oil_11	0.0695***	0.0805***
oil_12	-0.0415**	-0.0075
ppi_input	-0.2939	-0.3016*
ppi_input_1	-0.2925	-0.429**
ppi_input_2	0.1984	0.2052

ppi_input_3	-0.1758	-0.0723
ppi_input_4	0.3995*	0.3765*
ppi_input_5	-0.3509	-0.2758
ppi_input_6	0.4108*	0.2417
ppi_input_7	-0.3566	-0.2313
ppi_input_8	0.2226	0.2392
ppi_input_9	-0.5924**	-0.4686**
ppi_input_10	0.7954***	0.3789*
ppi_input_11	-0.1768	-0.0214
ppi_input_12	-0.1403	-0.1524
ppi_output	-0.8937***	-0.5085**
ppi_output_1	1.5283***	0.8979**
ppi_output_2	-0.9741**	-0.4016
ppi_output_3	0.6806	0.2148
ppi_output_4	0.8144*	0.3838
ppi_output_5	-1.2662***	-0.6337*
ppi_output_6	0.1198	0.0934
ppi_output_7	0.5616	0.3736
ppi_output_8	-0.9254**	-0.534
ppi_output_9	1.3986***	0.9798***
ppi_output_10	-1.5741***	-0.9262**
ppi_output_11	1.1516***	0.4321
ppi_output_12	-0.5927**	-0.0404

Recreational/Personal services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	-13.079	-18.988**	-4.782*	-2.7925
R_1	0.2294***	0.0791	0.0155	0.0096
R_2	0.0053	-0.0069	-0.0179	-0.0062
R_3	0.1028	0.0629	-0.0534*	-0.0496**
R_4	0.2155**	0.0493	-0.0692**	-0.0546**
R_5	0.1205	0.0649	0.0415	0.0216
R_6	0.06	-0.0747	-0.163***	-0.1251***
R_7	0.1649	0.1987*	0.1169***	0.0714***
R_8	-0.1147	-0.0598	-0.0644**	-0.057**
R_9	-0.1671	-0.1642	0.0221	0.0123
R_10	0.0593	-0.0252	0.0089	0.0024
R_11	-0.1784*	-0.0832	0.0304	0.0301
R_12	-0.0911	-0.005	-0.0484*	-0.0321
dummy_increase	13.122***	18.335***	13.598***	16.849***

dummy_independent	0.8179**	4.4355***	14.257***	13.799***
dummy_nine_ending	10.592***	-0.0217	7.9809***	2.7426***
dummy_sales	4.6457***	7.5134***	5.1425***	2.148***
dummy_zero_ending	11.826***	5.8855***	7.031***	2.5737***
expenditure_Alcoholic	0.0143***	0.0064**	-0.0023	-0.0023*
expenditure_Communication	0.0085*	0.0099**	-0.0081***	-0.0045***
expenditure_Energy	0.0012	-0.0005	-0.0003	-0.0006**
expenditure_Housing_services	0.0334***	0.0259***	-0.0017	0.0066
expenditure_Miscellaneous_services	0.0011	0.0003	0.0009***	0.0002
expenditure_Non_energy_goods	-0.0043**	-0.0019	0.0014**	0.0006
expenditure_Recreational_personal_services	0.0015	0.0001	0.0007**	0.0008***
expenditure_Transport_travel_services	-0.0002	-0.0004	-0.0027***	-0.0017***
inflation_1	-106.32	-6.4785	-436.67***	-307.74***
inflation_2	412.51*	541.29**	193.47*	127.1
inflation_3	-291.97	-273.52	285.63**	216.88**
inflation_4	-484.68*	-336.75	253.45**	230.85**
inflation_5	-271.33	-165.91	729.46***	489.65***
inflation_6	-412.2	-275.1	419.62***	398.91***
inflation_7	-106.58	-223.98	22.102	144.96
inflation_8	136.57	-115.28	-63.267	27.236
inflation_9	200.33	61.006	184.09*	150.58
inflation_10	-139.66	-129.96	274.98***	203.45**
inflation_11	62.921	-200.96	383.41***	266.49***
inflation_12	441.94**	305.39*	157.13	106.91
location_East_Anglia	-2.4639***	-2.8968*	-5.552***	-3.3247***
location_East_Midlands	-6.4954***	-5.0681***	-6.8896***	-4.1691***
location_NI	-8.8208***	-4.3026**	-7.9538***	-3.1967***
location_NW	-3.1468***	1.4328	-9.1775***	-4.1431***
location_North	-7.2343***	-3.9972**	-10.24***	-5.2922***
location_SE	0.2333	0.5775	-0.1469	0.138
location_SW	-4.9349***	-4.1152***	-8.5568***	-5.9199***
location_Scotland	-2.206***	-1.1182	-2.5589***	-1.6177**
location_Wales	-7.4474***	-4.2762**	-8.3439***	-5.8215***
location_West_Midlands	-0.714	1.1647	-4.6286***	-2.4463***
location_Yorks_Humber	1.6215**	-1.7349	-1.3781***	-0.6829
market_share	-0.0209	1.3334***	4.2517***	6.9806***
month_APR	-6.75**	-7.0132**	1.4455	-0.6312
month_AUG	-0.8523	-2.7464	4.1453**	-1.5398
month_DEC	-1.1711	-3.1263	1.8475	0.3532
month_FEB	1.751	1.5631	-0.7425	-0.0431
month_JUL	-0.7013	-2.564	3.7258**	-1.327
month_JUN	-4.1681	-6.3305	6.6313***	0.3067
month_MAR	1.4949	1.5897	5.2891***	2.3342*

month_MAY	-11.003***	-9.3747***	2.4949*	-0.7975
month_NOV	-4.8875	-3.523	-2.0879	-2.1978
month_OCT	-1.0451	-2.5699	1.7717	-0.5927
month_SEP	3.7091	1.4797	3.3343**	-0.8232
oil	-3.061	-4.7031	14.47***	9.0372***
oil_1	0.0874*	-0.0059	0.0293	0.0362
oil_2	0.0278	0.0003	0.162***	0.1264***
oil_3	-0.0947*	-0.0463	0.1147***	0.0918***
oil_4	-0.0329	-0.0421	0.1295***	0.1213***
oil_5	0.0485	-0.0154	0.0048	0.0329
oil_6	0.07	0.0268	0.0782**	0.0838***
oil_7	0.1238**	0.1134**	-0.0203	-0.015
oil_8	0.0685	0.0788	0.0138	-0.0062
oil_9	0.0054	0.0179	0.1362***	0.0974***
oil_10	0.0781	0.054	-0.0486	-0.0176
oil_11	0.0185	0.0752	0.1939***	0.1511***
oil_12	0.0459	0.0556	-0.095***	-0.0583**
ppi_input	0.1862	0.5127	-1.168***	-0.9324***
ppi_input_1	-1.9131**	-1.2955**	-0.334	-0.368
ppi_input_2	0.1307	-0.2958	0.5738	0.386
ppi_input_3	0.1149	-0.3638	-0.0334	0.0292
ppi_input_4	1.4105**	1.7291***	0.6626*	0.4461
ppi_input_5	-2.6522***	-1.9499***	0.0905	0.1977
ppi_input_6	1.19*	0.551	-0.4434	-0.3501
ppi_input_7	-0.4926	-0.4609	-0.4644	-0.4674
ppi_input_8	1.2562**	0.6601	0.5223	0.3358
ppi_input_9	-0.1595	0.3243	-0.914***	-0.5998*
ppi_input_10	0.2906	-0.0616	0.9443***	0.6828**
ppi_input_11	0.3197	-0.0951	-0.2902	-0.2678
ppi_input_12	-0.5206	0.0129	-0.372	-0.2749
ppi_output	2.1417**	1.7643**	-0.4417	-0.3198
ppi_output_1	-0.304	-0.0385	2.9756***	1.8592***
ppi_output_2	-0.862	-1.2619	-3.1414***	-1.7609***
ppi_output_3	0.8757	0.175	1.3361*	0.9263
ppi_output_4	1.0811	0.7629	-0.4668	-0.6464
ppi_output_5	0.4156	1.6143*	-1.9618***	-1.3579**
ppi_output_6	-2.0446**	-2.5191***	2.0678***	1.6102**
ppi_output_7	0.5246	1.2495	0.6972	0.5396
ppi_output_8	-2.1227**	-1.8444**	-1.3822*	-0.6761
ppi_output_9	1.0462	0.7713	2.0005***	1.1227*
ppi_output_10	0.2296	0.1299	-2.1955***	-1.5856***
ppi_output_11	-1.6855	-0.9864	0.8155	0.7041
ppi_output_12	0.6989	0.6915	0.3929	0.2719

Recreational/Personal Services			
	without sales	full sample	
		FE	RE
R		-2.5101	-1.6246
R_1		0.0261	0.0141
R_2		0.0108	0.0142
R_3		-0.0153	-0.0017
R_4		0.0149	-0.0114
R_5		0.0329	0.0351*
R_6		-0.067***	-0.0605***
R_7		0.0697***	0.0608***
R_8		-0.0194	-0.0215
R_9		0.0441*	0.028
R_10		-0.0569**	-0.0181
R_11		0.0415*	0.0297
R_12		-0.0814***	-0.0134
dummy_increase		11.836***	16.953***
dummy_independent		6.8237***	8.6347***
dummy_nine_ending		8.521***	-0.7997**
dummy_zero_ending		9.2178***	3.2476***
expenditure_Alcoholic		0.0082***	0.0006
expenditure_Communication		-0.0121***	-0.0043***
expenditure_Energy		-1.6E-05	5.88E-05
expenditure_Housing_services		0.0049*	0.0118***
expenditure_Miscellaneous_services		0.0021***	-1.6E-05
expenditure_Non_energy_goods		-0.0001	2.01E-05
expenditure_Recreational_personal_services		-2.4E-07	-7.3E-05
expenditure_Transport_travel_services		-0.0013***	4.22E-05
inflation_1		-301.58***	-172.16***
inflation_2		-32.169	46.202
inflation_3		-250.16***	-77.738
inflation_4		-393.26***	-134.99**
inflation_5		-119.79	-104.63
inflation_6		-106.65	-3.5348
inflation_7		-165.04**	-100.07
inflation_8		-184.89***	-148.47**
inflation_9		16.307	-44.142
inflation_10		-65.841	-126.76**
inflation_11		-59.161	-92.254
inflation_12		-105.66	1.6006

location_East_Anglia	-4.2535***	-3.1335***
location_East_Midlands	-7.0883***	-4.1178***
location_NI	-8.8272***	-3.1677**
location_NW	-5.8642***	-0.0679
location_North	-9.1141***	-3.8769***
location_SE	0.0559	0.7005
location_SW	-7.4803***	-4.9581***
location_Scotland	-2.8086***	-1.0636
location_Wales	-7.8309***	-4.1147***
location_West_Midlands	-2.5868***	-0.2785
location_Yorks_Humber	0.4447	-0.1961
market_share	2.6734***	8.6002***
month_APR	-1.2074	-2.3363**
month_AUG	5.2248***	-1.0731
month_DEC	1.17	0.076
month_FEB	5.4049***	2.8623***
month_JUL	4.5432***	0.1181
month_JUN	2.125*	-1.7964
month_MAR	3.0686***	0.3521
month_MAY	-1.5214	-2.0426**
month_NOV	-2.2267*	-0.0933
month_OCT	0.4546	0.418
month_SEP	2.8299**	0.2157
oil	5.9663***	1.8826
oil_1	0.0833***	0.0515***
oil_2	0.1116***	0.0722***
oil_3	0.0136	0.0063
oil_4	0.0974***	0.0691***
oil_5	0.0047	0.0232
oil_6	0.0611***	0.0612***
oil_7	0.0282	0.0407**
oil_8	0.0265	0.0216
oil_9	0.003	0.0426**
oil_10	-0.0428**	0.0011
oil_11	0.065***	0.0799***
oil_12	-0.0384*	-0.0027
ppi_input	-0.3406*	-0.3681**
ppi_input_1	-0.1684	-0.3832*
ppi_input_2	0.0879	0.0986
ppi_input_3	-0.1583	-0.0223
ppi_input_4	0.379	0.4217**
ppi_input_5	-0.2402	-0.1701
ppi_input_6	0.3454	0.1175

ppi_input_7	-0.3193	-0.1374
ppi_input_8	0.1517	0.1435
ppi_input_9	-0.423*	-0.34
ppi_input_10	0.5276**	0.1556
ppi_input_11	-0.0775	0.0892
ppi_input_12	-0.1976	-0.2487*
ppi_output	-0.8679***	-0.451*
ppi_output_1	1.3532***	0.7752**
ppi_output_2	-0.7629*	-0.27
ppi_output_3	0.7088	0.2261
ppi_output_4	0.7654*	0.3219
ppi_output_5	-1.2428***	-0.5672
ppi_output_6	-0.0303	0.0064
ppi_output_7	0.694	0.4388
ppi_output_8	-0.8761*	-0.4875
ppi_output_9	1.1409**	0.7764**
ppi_output_10	-1.3475***	-0.6449
ppi_output_11	1.2249***	0.3536
ppi_output_12	-0.7088***	-0.0635

Recreational/Personal services Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		-14.975	-19.33**	-3.7347	-1.299
R_1		0.2752***	0.1205	0.0392	0.0272
R_2		-0.045	-0.0681	-0.0091	0.0019
R_3		0.1461	0.1002	-0.0763***	-0.0482*
R_4		0.2316**	0.0485	-0.0618**	-0.0539**
R_5		0.1799	0.1183	0.0628**	0.0346
R_6		0.0761	-0.0453	-0.1615***	-0.1273***
R_7		0.2297*	0.2456**	0.1095***	0.0695***
R_8		-0.1334	-0.0836	-0.0417	-0.0369
R_9		-0.1212	-0.1165	0.0326	0.0216
R_10		0.0513	-0.0189	-0.0058	-0.0048
R_11		-0.1546	-0.0383	0.0471*	0.042*
R_12		-0.13	-0.0328	-0.0404	-0.0074
dummy_increase		12.126***	17.14***	11.178***	15.072***
dummy_independent		-0.0518	3.2668***	12.343***	11.685***
dummy_nine_ending		11.094***	-0.2703	6.8328***	1.7073***
dummy_zero_ending		11.507***	5.8113***	7.4322***	2.6575***
expenditure_Alcoholic		0.0176***	0.0093***	-0.0011	-0.0014

expenditure_Communication	0.0103**	0.0122***	-0.012***	-0.0074***
expenditure_Energy	0.0009	-0.0009	-9.4E-05	-0.0004*
expenditure_Housing_services	0.0317***	0.0253***	-0.0054	0.0031
expenditure_Miscellaneous_services	0.0014	0.0005	0.0013***	0.0003
expenditure_Non_energy_goods	-0.0053**	-0.0027	0.0016***	0.0009*
expenditure_Recreational_personal_services	0.0019	0.0002	7.68E-05	0.0004
expenditure_Transport_travel_services	0.0002	0.0001	-0.0021***	-0.0012***
inflation_1	-141.89	-64.133	-412.81***	-278.08***
inflation_2	541.97**	626.33***	225.9**	126.8
inflation_3	-171.74	-166	344.72***	288.25***
inflation_4	-325.89	-218.43	237.45**	257.05**
inflation_5	-118.51	-47.899	696.23***	441.75***
inflation_6	-197.35	-94.997	389.05***	379.59***
inflation_7	-23.028	-158.83	-16.724	116.7
inflation_8	237.13	8.5376	-145.62	-61.033
inflation_9	272.68	115.55	229.49**	207.29**
inflation_10	-96.633	-81.082	296.71***	222.99**
inflation_11	167.91	-92.265	372.5***	239.73**
inflation_12	475.57**	342.97*	166.76	130.67
location_East_Anglia	-2.3101***	-3.1796**	-6.0699***	-3.1193***
location_East_Midlands	-7.1561***	-5.5468***	-7.7147***	-4.4205***
location_NI	-9.4363***	-4.9848**	-8.9837***	-3.3965***
location_NW	-3.6353***	0.4465	-9.4733***	-4.1356***
location_North	-7.7731***	-4.6535***	-10.891***	-5.0843***
location_SE	0.0806	0.5282	-0.1358	0.5112
location_SW	-5***	-4.4564***	-9.2864***	-6.0239***
location_Scotland	-2.3049***	-1.6343	-3.203***	-1.8447**
location_Wales	-7.7796***	-4.7158***	-8.5842***	-5.6826***
location_West_Midlands	-0.7024	1.1902	-4.773***	-2.2862***
location_Yorks_Humber	1.6389*	-2.024	-1.3553***	-0.4629
market_share	-0.0144	1.1731***	3.928***	6.6733***
month_APR	-7.497**	-7.953**	2.6378*	0.153
month_AUG	-5.0159	-6.6733	4.8766***	-1.5835
month_DEC	-0.7468	-2.737	2.8371*	0.228
month_FEB	-0.564	-0.9511	-1.4287	-0.6427
month_JUL	-3.0101	-4.5328	4.3331***	-1.2438
month_JUN	-5.6302	-7.5806*	7.0136***	-0.2333
month_MAR	1.3242	0.9628	4.9954***	1.6288
month_MAY	-12.159***	-10.453***	2.9521*	-0.9009
month_NOV	-5.3256	-3.8015	-0.4084	-1.627
month_OCT	-2.54	-3.8397	3.489**	0.4581
month_SEP	1.7764	0.0753	4.1567**	-1.2352
oil	-2.6683	-4.3488	14.48***	7.7596***

oil_1	0.0938*	0.0063	0.0039	0.019
oil_2	0.0185	-0.0044	0.1468***	0.1282***
oil_3	-0.1409**	-0.0852*	0.1014***	0.0829***
oil_4	-0.0419	-0.0508	0.1152***	0.1059***
oil_5	0.0231	-0.0357	-0.0232	0.0186
oil_6	0.0461	0.0044	0.0658*	0.0808**
oil_7	0.1048*	0.0956*	-0.0251	-0.0109
oil_8	0.0481	0.0518	-0.0237	-0.0245
oil_9	0.0035	0.0148	0.1026***	0.0772***
oil_10	0.0738	0.0472	-0.0467	-0.0134
oil_11	0.0074	0.0712	0.1802***	0.144***
oil_12	0.0432	0.0521	-0.1083***	-0.0618**
ppi_input	0.2775	0.5559	-1.3405***	-1.1469***
ppi_input_1	-1.8611**	-1.3065*	-0.2177	-0.3028
ppi_input_2	0.0053	-0.3547	0.5747	0.3663
ppi_input_3	0.5165	0.0223	-0.1434	0.0025
ppi_input_4	0.9276	1.3398**	0.8707**	0.5854*
ppi_input_5	-2.5633***	-1.8543***	0.2154	0.3756
ppi_input_6	0.9498	0.2293	-0.6184	-0.5775*
ppi_input_7	-0.2228	-0.2259	-0.3961	-0.317
ppi_input_8	1.176*	0.6189	0.5055	0.1843
ppi_input_9	-0.2045	0.2206	-0.812**	-0.4499
ppi_input_10	0.2225	-0.0823	0.7821**	0.534*
ppi_input_11	0.4996	0.0257	-0.322	-0.2499
ppi_input_12	-0.4734	0.0796	-0.4492*	-0.4469**
ppi_output	2.2158**	1.7117**	-0.1015	0.0633
ppi_output_1	-0.2836	0.1648	2.6787***	1.5372**
ppi_output_2	-0.9392	-1.4921*	-3.1476***	-1.8151***
ppi_output_3	1.3154	0.7546	1.6486**	1.205*
ppi_output_4	0.9648	0.4453	-0.9209	-0.9777
ppi_output_5	0.7188	2.1123**	-1.8964**	-1.3545**
ppi_output_6	-2.6626**	-3.0746***	2.2597***	1.8757***
ppi_output_7	1.0868	1.6679*	0.5605	0.336
ppi_output_8	-2.3209**	-1.9635**	-1.3412*	-0.529
ppi_output_9	1.0573	0.895	1.9301***	0.9633
ppi_output_10	0.1313	0.0388	-2.2219***	-1.489**
ppi_output_11	-1.864*	-1.2267	0.8546	0.6512
ppi_output_12	0.5811	0.5848	0.4461	0.3882

Miscellaneous Services	
with sales	full sample

	FE	RE
R	2.3583	3.8362
R_1	-0.0145	-0.0143
R_2	-0.0115	-0.007
R_3	-0.0259	-0.0107
R_4	0.0429	0.0387
R_5	-0.0098	-0.0019
R_6	-0.1419***	-0.1125***
R_7	0.068	0.0763*
R_8	-0.1334***	-0.1142***
R_9	0.1093**	0.1054**
R_10	-0.0857*	-0.0412
R_11	0.0517	0.0483
R_12	-0.1094**	-0.0616
dummy_increase	30.797***	33.645***
dummy_independent	16.671***	18.284***
dummy_nine_ending	2.259***	-0.3766
dummy_sales	2.0847***	7.9723***
dummy_zero_ending	14.486***	8.6378***
expenditure_Alcoholic	0.0077***	0.0025**
expenditure_Communication	-0.0169***	-0.0133***
expenditure_Energy	0.0002	0.0001
expenditure_Housing_services	0.0154***	0.0197***
expenditure_Miscellaneous_services	0.0006*	-0.0003
expenditure_Non_energy_goods	0.0006	0.0007
expenditure_Recreational_personal_services	0.0011**	0.0007
expenditure_Transport_travel_services	-0.0032***	-0.0019***
inflation_1	-331.09**	-184.1
inflation_2	16.803	20.225
inflation_3	-389.98**	-239.71*
inflation_4	-306.91**	-141.38
inflation_5	-464.23***	-349.74**
inflation_6	-146	-62.771
inflation_7	38.412	-14.632
inflation_8	77.484	30.915
inflation_9	158.33	97.335
inflation_10	-53.473	-98.92
inflation_11	-150.9	-178.02
inflation_12	54.766	50.216
location_East_Anglia	-7.7835***	-6.872***
location_East_Midlands	-12.471***	-10.024***
location_NI	-15.889***	-12.014***
location_NW	-10.216***	-6.8457***

location_North	-17.596***	-13.162***
location_SE	-0.2355	-2.6518***
location_SW	-18.436***	-14.546***
location_Scotland	-9.1641***	-7.9051***
location_Wales	-20.27***	-14.897***
location_West_Midlands	-8.8992***	-6.8136***
location_Yorks_Humber	-5.7194***	-4.5986***
market_share	2.4507***	4.015***
month_APR	2.263	0.8003
month_AUG	8.9064***	4.4245
month_DEC	-1.6914	-1.3212
month_FEB	9.8064***	8.199***
month_JUL	8.0721***	4.4157**
month_JUN	0.5449	-1.9072
month_MAR	8.9553***	5.5914***
month_MAY	1.9521	0.3673
month_NOV	-4.5881*	-1.703
month_OCT	1.5486	1.8103
month_SEP	6.4766***	3.7959*
oil	10.068**	6.1918*
oil_1	0.1967***	0.1608***
oil_2	0.1747***	0.1462***
oil_3	0.1033***	0.0836**
oil_4	0.1919***	0.1526***
oil_5	0.1458***	0.1367***
oil_6	0.1682***	0.1635***
oil_7	0.0683*	0.0662*
oil_8	0.0668	0.0605
oil_9	0.0733*	0.0911**
oil_10	-0.0299	-0.0048
oil_11	0.0662	0.0988***
oil_12	-0.0757*	-0.0283
ppi_input	-1.3383***	-1.2076***
ppi_input_1	-0.1899	-0.3615
ppi_input_2	0.3539	0.253
ppi_input_3	0.0509	0.1739
ppi_input_4	-0.0501	0.1154
ppi_input_5	0.2575	0.1646
ppi_input_6	0.1403	-0.0215
ppi_input_7	-0.2425	-0.2062
ppi_input_8	0.6192	0.4323
ppi_input_9	-0.978*	-0.7289
ppi_input_10	0.725	0.5519

ppi_input_11	0.7717	0.7636
ppi_input_12	-1.2492***	-1.1486***
ppi_output	-1.4811**	-1.078*
ppi_output_1	2.1148**	1.3836
ppi_output_2	-0.5478	0.0305
ppi_output_3	0.8664	0.4577
ppi_output_4	1.0609	0.7586
ppi_output_5	-2.704***	-2.4656***
ppi_output_6	2.6387***	2.6275***
ppi_output_7	-1.4011	-1.2029
ppi_output_8	-0.4978	-0.1337
ppi_output_9	0.8131	0.3402
ppi_output_10	-0.9637	-0.5502
ppi_output_11	0.7216	0.4418
ppi_output_12	-0.2277	-0.0112

Miscellaneous services Pre- and Post-crisis				
with sales	pre-crisis		post-crisis	
	FE	RE	FE	RE
R	25.73	25.73	-6.66	-6.66
R_1	0.0949	0.0949	0.0215	0.0215
R_2	0.0891	0.0891	0.0379	0.0379
R_3	0.073	0.073	-0.0818	-0.0818
R_4	0.5111**	0.5111**	-0.0142	-0.0142
R_5	-0.2109	-0.2109	0.0467	0.0467
R_6	0.1957	0.1957	-0.1909***	-0.1909***
R_7	-0.2005	-0.2005	0.0658	0.0658
R_8	-0.0595	-0.0595	-0.0551	-0.0551
R_9	-0.358	-0.358	0.0676	0.0676
R_10	0.0133	0.0133	-0.0364	-0.0364
R_11	-0.4217**	-0.4217**	0.0765	0.0765
R_12	0.1542	0.1542	-0.1242**	-0.1242**
dummy_increase	28.714***	28.714***	32.123***	32.123***
dummy_independent	2.9955***	2.9955***	29.119***	29.119***
dummy_nine_ending	1.8554*	1.8554*	3.2234***	3.2234***
dummy_sales	2.6678**	2.6678**	1.6552**	1.6552**
dummy_zero_ending	23.345***	23.345***	10.166***	10.166***
expenditure_Alcoholic	0.0097	0.0097	-0.0038	-0.0038
expenditure_Communication	0.0263***	0.0263***	-0.0103**	-0.0103**
expenditure_Energy	-3.6E-05	-3.6E-05	-0.0012**	-0.0012**
expenditure_Housing_services	0.0463**	0.0463**	0.0076	0.0076

expenditure_Miscellaneous_services	0.0048**	0.0048**	0.0005	0.0005
expenditure_Non_energy_goods	-0.0017	-0.0017	0.002	0.002
expenditure_Recreational_personal_services	-0.0038	-0.0038	0.0019***	0.0019***
expenditure_Transport_travel_services	-0.0031	-0.0031	-0.0057***	-0.0057***
inflation_1	393.87	393.87	-707.61***	-707.61***
inflation_2	29.18	29.18	234.75	234.75
inflation_3	-822.32	-822.32	347.28	347.28
inflation_4	-1821.9***	-1821.9***	751.68***	751.68***
inflation_5	-1009.3	-1009.3	648.84**	648.84**
inflation_6	-1681.3***	-1681.3***	842.95***	842.95***
inflation_7	-547.12	-547.12	349.14	349.14
inflation_8	-859.84*	-859.84*	359.51	359.51
inflation_9	245	245	344.96	344.96
inflation_10	-509.99	-509.99	438.17*	438.17*
inflation_11	224.46	224.46	458.23*	458.23*
inflation_12	-31.024	-31.024	447.9*	447.9*
location_East_Anglia	-8.6578***	-8.6578***	-6.3557***	-6.3557***
location_East_Midlands	-13.964***	-13.964***	-10.341***	-10.341***
location_NI	-13.5***	-13.5***	-16.081***	-16.081***
location_NW	-8.4075***	-8.4075***	-11.826***	-11.826***
location_North	-15.769***	-15.769***	-17.736***	-17.736***
location_SE	-3.5789***	-3.5789***	2.6236***	2.6236***
location_SW	-16.658***	-16.658***	-18.968***	-18.968***
location_Scotland	-11.488***	-11.488***	-6.6682***	-6.6682***
location_Wales	-17.633***	-17.633***	-21.909***	-21.909***
location_West_Midlands	-8.8541***	-8.8541***	-8.5635***	-8.5635***
location_Yorks_Humber	1.3156	1.3156	-9.3784***	-9.3784***
market_share	-2.1596***	-2.1596***	3.7635***	3.7635***
month_APR	7.1606	7.1606	2.8943	2.8943
month_AUG	24.444	24.444	-0.9001	-0.9001
month_DEC	12.94	12.94	-3.2426	-3.2426
month_FEB	19.232***	19.232***	-2.4021	-2.4021
month_JUL	10.192	10.192	2.5351	2.5351
month_JUN	10.615	10.615	-0.4341	-0.4341
month_MAR	9.1509	9.1509	8.8369***	8.8369***
month_MAY	-5.0833	-5.0833	4.5402	4.5402
month_NOV	0.0517	0.0517	-7.8026*	-7.8026*
month_OCT	14.401*	14.401*	-2.3627	-2.3627
month_SEP	14.417	14.417	5.0427	5.0427
oil	-1.5076	-1.5076	18.339***	18.339***
oil_1	0.1172	0.1172	0.1976***	0.1976***
oil_2	0.1015	0.1015	0.218***	0.218***
oil_3	0.1437	0.1437	0.1781***	0.1781***

oil_4	0.1894*	0.1894*	0.2891***	0.2891***
oil_5	0.2732**	0.2732**	0.1136*	0.1136*
oil_6	0.1313	0.1313	0.2667***	0.2667***
oil_7	0.1732	0.1732	-0.018	-0.018
oil_8	0.1159	0.1159	0.0205	0.0205
oil_9	-0.0127	-0.0127	0.1632**	0.1632**
oil_10	0.0382	0.0382	0.0938	0.0938
oil_11	0.0523	0.0523	0.1814***	0.1814***
oil_12	0.0746	0.0746	0.0133	0.0133
ppi_input	-1.2145	-1.2145	-2.6905***	-2.6905***
ppi_input_1	-0.9071	-0.9071	-0.203	-0.203
ppi_input_2	-1.6743	-1.6743	1.0821	1.0821
ppi_input_3	0.0058	0.0058	0.2836	0.2836
ppi_input_4	1.0934	1.0934	-0.3719	-0.3719
ppi_input_5	-1.1028	-1.1028	1.8028**	1.8028**
ppi_input_6	2.3025*	2.3025*	-1.718**	-1.718**
ppi_input_7	-1.2257	-1.2257	-1.0927	-1.0927
ppi_input_8	1.2579	1.2579	1.0915	1.0915
ppi_input_9	0.2549	0.2549	-1.171	-1.171
ppi_input_10	0.4026	0.4026	0.9605	0.9605
ppi_input_11	0.8425	0.8425	0.3417	0.3417
ppi_input_12	-2.1774**	-2.1774**	-1.4314***	-1.4314***
ppi_output	0.7687	0.7687	0.6359	0.6359
ppi_output_1	0.2563	0.2563	2.134	2.134
ppi_output_2	1.3553	1.3553	-2.5247	-2.5247
ppi_output_3	-1.8047	-1.8047	1.2007	1.2007
ppi_output_4	1.4741	1.4741	-0.333	-0.333
ppi_output_5	-1.4034	-1.4034	-4.5705***	-4.5705***
ppi_output_6	2.0082	2.0082	5.0394***	5.0394***
ppi_output_7	-0.9856	-0.9856	0.3428	0.3428
ppi_output_8	-2.9118	-2.9118	-1.2848	-1.2848
ppi_output_9	1.4557	1.4557	2.0818	2.0818
ppi_output_10	-1.0096	-1.0096	-2.2821	-2.2821
ppi_output_11	-0.7733	-0.7733	0.4838	0.4838
ppi_output_12	0.6229	0.6229	1.3669	1.3669

Miscellaneous Services			
without sales		full sample	
		FE	RE
R		6.0258	6.1118
R_1		0.0432	0.0433

R_2	0.0008	0.0005
R_3	-0.0935*	-0.0851
R_4	0.0494	0.0547
R_5	-0.0164	-0.0172
R_6	-0.1321**	-0.1275**
R_7	0.0614	0.0652
R_8	-0.1478**	-0.1472**
R_9	0.1322**	0.1307**
R_10	-0.1214**	-0.1113*
R_11	0.0586	0.0592
R_12	-0.1392***	-0.1257**
dummy_increase	29.415***	29.763***
dummy_independent	16.699***	16.262***
dummy_nine_ending	2.5585***	1.8548**
dummy_zero_ending	17.711***	15.996***
expenditure_Alcoholic	0.0126***	0.0121***
expenditure_Communication	-0.0223***	-0.0219***
expenditure_Energy	0.0006	0.0006
expenditure_Housing_services	0.0213***	0.0231***
expenditure_Miscellaneous_services	0.002***	0.0018***
expenditure_Non_energy_goods	-0.0014**	-0.0014**
expenditure_Recreational_personal_services	0.0019***	0.002***
expenditure_Transport_travel_services	-0.002**	-0.0019**
inflation_1	-427.22**	-395.61**
inflation_2	-20.19	-47.454
inflation_3	-435.1**	-420.66**
inflation_4	-425.45**	-406.23**
inflation_5	-562.1***	-547.74***
inflation_6	-171.47	-163.94
inflation_7	72.87	55.977
inflation_8	-55.201	-64.283
inflation_9	200.57	189.11
inflation_10	-134.05	-160.62
inflation_11	-278.75	-302.16*
inflation_12	-50.777	-62.15
location_East_Anglia	-8.8487***	-8.1782***
location_East_Midlands	-14.681***	-14.186***
location_NI	-17.561***	-16.636***
location_NW	-11.968***	-10.973***
location_North	-19.959***	-18.877***
location_SE	-0.2827	-0.9487
location_SW	-20.84***	-19.856***
location_Scotland	-10.63***	-10.388***

location_Wales	-22.751***	-21.134***
location_West_Midlands	-9.6607***	-9.1877***
location_Yorks_Humber	-5.8224***	-5.1035***
market_share	2.1095***	2.3854***
month_APR	1.7513	1.3929
month_AUG	5.4426	4.7074
month_DEC	-0.6873	-0.8786
month_FEB	10.532***	10.666***
month_JUL	4.4718*	3.8315
month_JUN	-2.7606	-3.3512
month_MAR	7.9815***	7.3353***
month_MAY	-0.5716	-1.2067
month_NOV	-4.0492	-4.004
month_OCT	1.2565	1.0978
month_SEP	3.6258	2.8334
oil	9.9775**	9.0093*
oil_1	0.198***	0.1923***
oil_2	0.1875***	0.1863***
oil_3	0.1159**	0.1131**
oil_4	0.2217***	0.2112***
oil_5	0.153***	0.1486***
oil_6	0.1841***	0.1819***
oil_7	0.0547	0.0518
oil_8	0.0157	0.0155
oil_9	0.0368	0.0418
oil_10	-0.0081	-0.0058
oil_11	0.0718	0.0779
oil_12	-0.09*	-0.0791
ppi_input	-1.5235***	-1.4847***
ppi_input_1	0.2279	0.1742
ppi_input_2	0.115	0.0634
ppi_input_3	0.0201	0.0566
ppi_input_4	-0.0098	0.0491
ppi_input_5	0.619	0.5834
ppi_input_6	-0.0633	-0.1247
ppi_input_7	-0.2182	-0.206
ppi_input_8	0.581	0.5571
ppi_input_9	-0.7526	-0.7241
ppi_input_10	-1.9663***	-1.8876***
ppi_input_11	1.9809*	1.8505
ppi_input_12	-0.5329	-0.4573
ppi_output	1.1186	1.063
ppi_output_1	-0.7446	-0.7162

ppi_output_2	-0.1499	-0.0035
ppi_output_3	1.0768	1.015
ppi_output_4	0.9135	0.8401
ppi_output_5	-3.0352***	-2.9764***
ppi_output_6	2.8888**	2.9089***
ppi_output_7	-1.6094	-1.5867
ppi_output_8	0.0272	0.0249
ppi_output_9	0.0018	-0.0125
ppi_output_10	0.1085	0.0916
ppi_output_11	1.1588*	1.1802**
ppi_output_12	-1.447***	-1.4444***

Miscellaneous services Pre- and Post-crisis					
	without sales	pre-crisis		post-crisis	
		FE	RE	FE	RE
R		23.114	23.114	-2.5794	-2.5794
R_1		0.2878	0.2878	0.043	0.043
R_2		-0.0802	-0.0802	0.1023	0.1023
R_3		0.2025	0.2025	-0.156**	-0.156**
R_4		0.5253**	0.5253**	-0.0742	-0.0742
R_5		-0.0985	-0.0985	0.0858	0.0858
R_6		0.2161	0.2161	-0.2191***	-0.2191***
R_7		-0.0969	-0.0969	0.0258	0.0258
R_8		-0.1054	-0.1054	-0.0039	-0.0039
R_9		-0.1815	-0.1815	0.0789	0.0789
R_10		-0.0288	-0.0288	-0.0994	-0.0994
R_11		-0.285	-0.285	0.1344*	0.1344*
R_12		0.039	0.039	-0.1227*	-0.1227*
dummy_increase		28.529***	28.529***	30.011***	30.011***
dummy_independent		3.4289***	3.4289***	28.121***	28.121***
dummy_nine_ending		1.7273	1.7273	3.3619***	3.3619***
dummy_zero_ending		24.392***	24.392***	13.975***	13.975***
expenditure_Alcoholic		0.0177**	0.0177**	-0.0062	-0.0062
expenditure_Communication		0.0304***	0.0304***	-0.0198***	-0.0198***
expenditure_Energy		-0.0003	-0.0003	-0.0008	-0.0008
expenditure_Housing_services		0.0461**	0.0461**	0.0122	0.0122
expenditure_Miscellaneous_services		0.006***	0.006***	0.0012	0.0012
expenditure_Non_energy_goods		-0.0042	-0.0042	0.0018	0.0018
expenditure_Recreational_personal_services		-0.0031	-0.0031	0.0021***	0.0021***
expenditure_Transport_travel_services		-0.0025	-0.0025	-0.0044***	-0.0044***
inflation_1		144.65	144.65	-691.74***	-691.74***

inflation_2	164.95	164.95	342.26	342.26
inflation_3	-674.07	-674.07	728.48**	728.48**
inflation_4	-1526.7**	-1526.7**	955.83***	955.83***
inflation_5	-796.07	-796.07	694.58**	694.58**
inflation_6	-1043	-1043	1049.5***	1049.5***
inflation_7	-437.92	-437.92	481.75*	481.75*
inflation_8	-606.47	-606.47	258.86	258.86
inflation_9	497.43	497.43	635.73**	635.73**
inflation_10	-489.6	-489.6	576.37**	576.37**
inflation_11	416.73	416.73	522.37*	522.37*
inflation_12	-118.34	-118.34	673.8**	673.8**
location_East_Anglia	-9.5542***	-9.5542***	-7.3152***	-7.3152***
location_East_Midlands	-17.285***	-17.285***	-11.788***	-11.788***
location_NI	-14.63***	-14.63***	-17.965***	-17.965***
location_NW	-10.183***	-10.183***	-13.798***	-13.798***
location_North	-18.684***	-18.684***	-19.878***	-19.878***
location_SE	-4.8742***	-4.8742***	3.6196***	3.6196***
location_SW	-18.753***	-18.753***	-21.948***	-21.948***
location_Scotland	-13.33***	-13.33***	-7.8557***	-7.8557***
location_Wales	-20.14***	-20.14***	-24.78***	-24.78***
location_West_Midlands	-10.651***	-10.651***	-8.8433***	-8.8433***
location_Yorks_Humber	1.9997	1.9997	-10.369***	-10.369***
market_share	-2.172***	-2.172***	3.4008***	3.4008***
month_APR	6.8615	6.8615	2.5546	2.5546
month_AUG	16.901	16.901	-6.6963	-6.6963
month_DEC	14.344	14.344	-2.7997	-2.7997
month_FEB	14.886*	14.886*	-6.6595	-6.6595
month_JUL	8.3187	8.3187	-1.9816	-1.9816
month_JUN	8.0063	8.0063	-5.7032	-5.7032
month_MAR	8.7655	8.7655	4.9719	4.9719
month_MAY	-5.9174	-5.9174	0.757	0.757
month_NOV	-1.2652	-1.2652	-5.963	-5.963
month_OCT	12.596	12.596	0.0572	0.0572
month_SEP	11.215	11.215	1.5484	1.5484
oil	3.1494	3.1494	19.193**	19.193**
oil_1	0.1507	0.1507	0.186**	0.186**
oil_2	0.1404	0.1404	0.2123***	0.2123***
oil_3	0.0613	0.0613	0.1552**	0.1552**
oil_4	0.198	0.198	0.3116***	0.3116***
oil_5	0.2205	0.2205	0.096	0.096
oil_6	0.0819	0.0819	0.2662***	0.2662***
oil_7	0.1238	0.1238	-0.0096	-0.0096
oil_8	0.0358	0.0358	-0.0996	-0.0996

oil_9	-0.0471	-0.0471	0.092	0.092
oil_10	0.0067	0.0067	0.1397*	0.1397*
oil_11	0.0326	0.0326	0.1818**	0.1818**
oil_12	0.0346	0.0346	-0.024	-0.024
ppi_input	-1.653	-1.653	-3.183***	-3.183***
ppi_input_1	-0.0069	-0.0069	-0.2116	-0.2116
ppi_input_2	-2.5953	-2.5953	1.348	1.348
ppi_input_3	1.4182	1.4182	0.0063	0.0063
ppi_input_4	-0.3984	-0.3984	0.2464	0.2464
ppi_input_5	0.0455	0.0455	2.4533**	2.4533**
ppi_input_6	1.2629	1.2629	-2.3259**	-2.3259**
ppi_input_7	-0.6236	-0.6236	-1.3314	-1.3314
ppi_input_8	1.3684	1.3684	1.1534	1.1534
ppi_input_9	-0.2533	-0.2533	-1.0052	-1.0052
ppi_input_10	0.08	0.08	1.2712	1.2712
ppi_input_11	1.2397	1.2397	1.7332	1.7332
ppi_input_12	-2.3449	-2.3449	-2.1128	-2.1128
ppi_output	0.2401	0.2401	-0.1529	-0.1529
ppi_output_1	-0.6746	-0.6746	2.102**	2.102**
ppi_output_2	0.944	0.944	-2.6685	-2.6685
ppi_output_3	-0.4364	-0.4364	1.5417	1.5417
ppi_output_4	0.9451	0.9451	-1.3243	-1.3243
ppi_output_5	-1.4369	-1.4369	-5.1349**	-5.1349**
ppi_output_6	1.2785	1.2785	6.1121***	6.1121***
ppi_output_7	0.1581	0.1581	0.5286	0.5286
ppi_output_8	-3.3848	-3.3848	-1.2578	-1.2578
ppi_output_9	2.0856	2.0856	1.6974	1.6974
ppi_output_10	0.346	0.346	0.7485	0.7485
ppi_output_11	1.2339	1.2339	0.4533	0.4533
ppi_output_12	-2.1701**	-2.1701**	-1.7829***	-1.7829***
