Business failure in an age of globalisation: interpreting the rise and fall of the LG project in Wales, 1995–2006.

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Abstract

In 1996 the South Korean conglomerate LG announced a £1.67 billion investment in Wales to manufacture consumer electronics and semiconductors. The project was to be Europe’s largest inward investment project and LG was offered the UK Government’s most generous grants. However, the semiconductor plant was built but never entered production while the consumer electronics facility closed in stages up to 2006. This article responds to calls for a ‘new business history’ by using the ill-fated investment as a case study of business failure, arguing that narrow firm-specific factors do not fully explain LG’s failure in Wales. The article finds instead that analysis of distorted institutional environments in South Korea and Wales, linked to rent-seeking behaviour by LG, provides a fuller answer.

Keywords: Foreign Direct Investment, South Korea, Wales, LG, Emerging Market Multinational Corporation
Introduction

Economic and financial crises during the past decade have reinforced the salience of history within contemporary debate, but Freidman and Jones argued that ‘less evident is a recognition that business history itself matters as a discipline’.\(^1\) In response to this and similar observations, De Jong et. al. called for a ‘new business history’ that incorporates rigorous empirics and a range of theoretical concepts.\(^2\) Fridenson argued that business history should also focus on failure, to demonstrate how business activity is not always the result of ‘purely rational, instrumental action’.\(^3\)

Studies of failure within the business history literature tend to follow one of three methods: a ‘cultural’ approach as outlined by Fridenson that downplays the explanatory role of economic rationality in favour of a broader perspective; a ‘firm-level’ approach that accepts economic rationality but is focused narrowly on explaining sources of individual firm failure, and; an ‘incentives’ approach as followed by Brownlow and Buckley that considers the impacts of economic rationality and institutional environments on individual firm failures.\(^4\) This article addresses calls for a new business history and for greater attention to be paid to business failure. It does this by applying an incentives approach to a failed Foreign Direct Investment (FDI) project of the 1990s; the LG investment in Newport, Wales.

The 1990s was characterised by globalisation and accelerating flows of cross border investment. Emerging market multinational corporations were prominent as outward investment from East Asia increased from $9.6 billion in 1990 to $66.5 billion in 2000. Some of the most dramatic attempts to harness globalisation through FDI took place in South Korea, where outward investment quadrupled from $1.4 billion in 1993 to $5 billion in 1996.\(^5\) In July
1996 LG, a South Korean ‘chaebol’ (conglomerate) announced a £1.67 billion investment to manufacture consumer electronics and semiconductors at new factories in Newport, Wales. LG Newport planned to employ 6,100 people within Europe’s largest greenfield\(^1\) FDI project. Government bodies in Wales offered LG some £247 million to attract the project, the UK’s largest package of support to an inward investor. However, LG Newport soon failed. The semiconductor plant was built but never entered production and although the consumer electronics plant was operational by 2000, it then closed in stages until all output ceased in 2006. Public bodies paid £131 million to LG, eventually recovering £71 million in cash or property.\(^6\)

LG Newport’s trajectory presents the puzzle to be solved. By the mid-1990s LG was one of South Korea’s largest chaebols, employing over 120,000 people. Given LG’s managerial expertise and the scale of grants awarded by government, how could the company preside over such a spectacular failure? The article argues that while there was some commercial rationale for cautious overseas investment, the conduct of LG’s management was strongly influenced by institutional environments in South Korea and Wales. Distortions in South Korea pushed LG to embark on an overly ambitious FDI drive, while those in Wales pulled the company to Newport and encouraged rent-seeking. The role of institutions questions the extent to which cultural and firm-level approaches to the study of business failure apply to LG Newport. The article instead combines institutional and economic approaches to unpick the relationship between institutions and LG (and by extension, contemporaneous chaebol FDI in the UK).

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\(^1\) ‘Greenfield’ refers to an investment on a new site, as opposed to one linked to an expansion of an existing operation or to a merger or acquisition.
The remainder of this article is structured as follows. The next section discusses theorising on FDI and sets out the article’s analytical framework as drawing on public choice, Kornai’s soft budget approach to institutional economics and the game theory concept of a prisoner’s dilemma. Subsequent sections discuss the institutional and commercial dynamics that shaped LG in South Korea and FDI in Wales. The article then narrates LG Newport’s rise and fall between the mid-1990s and 2006. Data were sourced from: archives deposited by the government body that attracted LG to Newport; interviews with senior officials and politicians in Wales; media reports and contemporary documentation, and; the academic literature. The next part narrates the trajectory of contemporaneous chaebol investments throughout the UK. The final sections analyse factors that influenced the decision to invest in Newport and discuss implications for industrial policy, before concluding.

**FDI theorising and LG Newport**

FDI theorising within economics focuses on the ability of such investment to generate efficiency in cross border transactions and build transnational commercial capacity within individual companies. However, literature on South Korea rejects the applicability of such approaches given the importance of comprehensive industrial policies, identified by Wade as a crucial part of the ‘developmental state’. Such literature on South Korea includes: Cherry’s literature review detailing the consensus among South Korean scholars as to the inability of western and Japanese theories to explain South Korean FDI; Fitzgerald and Cham Kim arguing that firm-based approaches struggled to explain the scale of South Korean FDI in the 1990s and the speed of its subsequent collapse, and; Chan-Kim and Choi discussing how such investments were often motivated by a desire for scale and were supported by political incentives.
Given the difficulties in applying firm specific theories to South Korean FDI, is there a theoretical explanation or historical specificity that will explain the LG Newport case? In South Korea LG was one of the huge chaebols that owed their success to the policies carried out by the ‘developmental state’. By the mid-1990s LG was one of the ‘big four’ chaebols (the others were Daewoo, Samsung and Hyundai) that accounted for over half of South Korea’s exports. Chaebols’ importance meant that state support was taken for granted as they were seen as being ‘too big to fail’, a concept known to South Koreans as ‘the big horse could not die’. The LG project was secured for Wales against fierce competition from other locations. It was, however, an expensive, state sponsored failure. All this meant that institutions in South Korea and Wales impacted on LG’s behaviour while the scale of grant points towards rent-seeking.

This article uses an incentives approach to explore LG Newport and by extension, the circumstances that enable industrial policies targeting FDI to succeed or fail. The incentives approach includes analysis of historical, institutional, and economic factors. Its roots lie within the new institutionalism that emerged in the 1970s. An important element is Coase’s arguments as to how transaction costs driving specialization and productivity depend on institutions, defined as legal, political, and economic systems. Such dependence means that institutional frameworks are a crucial determinant of economic performance as set out, for example, by North and Thomas’s works of economic history.

The approach used within this article is formed from three components. The first is public choice, defined by Mueller as the ‘application of economics to political science’. Ostrom defined incentives as the formal and informal rules used to decide the allocation, production, distribution and consumption of goods, before identifying the key public choice question as: what incentives do actors face when making decisions and how do these affect
Baumol proposed that institutional structures can create incentives that determine the extent of business entrepreneurship as well as whether it is productive, unproductive or destructive, with the latter often characterised by rent-seeking behaviour. Finally, Henrekson and Sanandaji extended Baumol’s arguments to propose that influence can flow in the opposite direction as businesses further their own interests by abiding by, evading or altering institutional policies and approaches. Such pressures can distort institutional environments, creating soft budget constraints (SBC) and prisoner’s dilemmas.

The second component is therefore SBC. Kornai argued that these constraints operated within command economies where governments’ inability to impose hard budget constraints on state owned enterprises created moral hazard. SBC was subsequently extended to mixed economies, as Robinson and Torvik argued that soft budgets enable the state to buy political support and constraints could therefore persist despite their economic inefficiency. The concept of SBC implies that capitalism’s tendency for dynamism and innovation is not automatic, given the extent to which business behaviours and associated outcomes are influenced by social, political and legal environments. Once a business expects to be rescued by the state, this perception may alter their behaviour to increase the likelihood of such intervention. As a result, the behaviour of business leaders can create negative outcomes for their companies as well as the broader economy.

The final component is the game theory concept of a prisoner’s dilemma. FDI’s potential to create many jobs can create ‘bidding wars’ between government agencies, until bidding reaches a level where the cost of subsidy outweighs the economic advantages of attracting the project. A prisoner’s dilemma then results as although agencies have a collective interest in refraining from bidding wars, the benefits of FDI incentivise excessive bidding to
overcome competitors. \textsuperscript{22} Importantly, opportunity costs also apply to the winning agency as expenditure on subsidies could have been allocated on other activities with greater potential to provide better economic outcomes.

Studies across economics and public policy have used the three concepts identified above to shed light on the negative behaviours and outcomes that can flow from poorly designed industrial policies. Kornai argued that incentives to businesses to secure higher subsidies during bidding wars can create inefficiencies resembling the distortions associated with rent-seeking behaviour. \textsuperscript{23} Mazzucato noted that investors can influence state institutions bidding for such projects to ensure that their own businesses are the ‘only winners’, since returns are privatised and risks socialized as suggested by public choice. \textsuperscript{24} Finally, Moretti argued that even when subsidies in a winning location make economic sense, competition amongst regions in the same country for an FDI project can be a ‘zero-sum game’. \textsuperscript{25}

The potential of relationships between institutions and businesses to influence behaviour and create negative consequences for industrial policy, as explored by Kornai, Mazzucato and Moretti, prompts our research question: to what extent was the behaviour of LG influenced by its institutional environment as well as by its market surroundings? This question may have equal force across South Korea and Wales, given the privileged nature of LG’s positioning within both political economies.

**Business and the state in South Korea**

South Korea possesses few natural resources and emerged from the 1950–1953 Korean war in a ruined state. However, it then industrialised rapidly. Annual economic growth
averaged some six per cent between the early 1960s and the mid–1990s and the country emerged as one of the four Asian ‘Tiger economies’, with Chang noting the importance of the state’s developmental policies across infrastructure, education and technology.\(^{26}\)

This approach to economic development was embodied in five-year economic plans across three stages.\(^{27}\) The first stage ran from 1962 to 1971 and capitalised on South Korea’s competitive advantage in labour intensive manufactured goods. Chaebols were granted subsidies, monopoly rights and protection from import competition with, for example, the importation of cars and automotive components forbidden until 1967. The second stage ran from 1971 to 1982 and included a ‘big push’ into six priority sectors. Most sectors were heavy or chemical, but electronics manufacturing was also prioritised and by the late 1980s South Korea was the world’s second largest manufacturer of consumer electronics.\(^{28}\) The third phase between 1982 and 1992 featured some elements of market liberalization, although the state’s role remained crucial.

Industrial policies included the: identification of strategic sectors; use of institutional infrastructure to allocate credit and control wages, and; imposing performance standards on chaebols which linked the availability of finance to export targets. South Korea also benefited from the indifference of other governments to an economy that promoted exports and restricted imports simultaneously.\(^{29}\) However, this approach was not without problems, as Crafts noted how poor regulation and rent-seeking could hamper any future transition to a less interventionist model of governance.\(^{30}\)

The relationship between the state and chaebols was central to South Korea’s economic transformation. Chaebols were large conglomerates founded shortly after the Second World
War, sharing four common characteristics. First, they were diversified with complex structures encompassing a vast range of activities. Second, they were controlled by their founding families with the role of chairman often passing from father to son. Third, they were run along strictly hierarchical lines where senior managements’ decisions were absolute. Finally, relationships between the state and senior managements were close and enduring.

LG was established in 1947 as the Lucky Chemical Company. The Goldstar Radio Company was purchased in 1959 and the combined group was known as Lucky Goldstar. By the 1960s Lucky Goldstar was producing South Korea’s first domestically manufactured televisions, air conditioners, fridges and washing machines. Diversification continued throughout the 1970s and 1980s across activities such as semiconductors, financial services, and construction. By the mid-1990s LG (having shortened its name to aid overseas marketing) was established as one of South Korea’s ‘big four’ chaebols, employing 126,000 people with annual sales of over $40 billion. It closely matched the four characteristics of other chaebols. First, its diversified structure featured 53 subsidiary companies, each specialising in different activities. Second, its management culture was strictly hierarchical, with Chairman Cha-Kyung Koo stating in 1993 that ‘as the final decision maker, I had to promptly say yes or no to each of these grand [investment] proposals’. Third, it was controlled by two interrelated families descended from the founders of the Lucky Chemical Company and the Goldstar Radio Company. Finally, it maintained close links to the state and recruited many of its most senior executives from the military, government, or politics.

The state discouraged FDI throughout most of the post-war period, instead focussing on building export capacity. However, by the 1980s South Korean exports were threatened by rising labour market costs and the growth of regional trading blocs, such as the European single
market, that enforced import restrictions. The government responded with deregulation and by 1990 chaebols no longer needed official permission to invest abroad.\textsuperscript{35} Driven by the desire to avoid tariffs and other trade restrictions, chaebols began to build manufacturing facilities overseas although total FDI outflows from South Korea remained relatively small in scale.\textsuperscript{36} Daewoo was the first to expand, as foreshadowed by its name which meant ‘Big Universe’. In 1988 it launched an ambitious Global Management Plan that included overseas investment such as a new consumer electronics factory in Northern Ireland. Samsung and LG then began to expand overseas to ensure that Daewoo did not obtain first mover advantages. In the early 1990s, both opened consumer electronics plants in the North East of England, with LG’s being its first factory in the EU.

However, the relatively sedate pace of overseas expansion did not last. By 1994, regional trading blocs were solidifying as wages in South Korea grew by some 16 per cent per annum.\textsuperscript{37} In late 1994 President Kim Young-sam responded by announcing his government’s ‘segyewha’ (globalisation) programme. It aimed to: stimulate entrepreneurship; reduce state regulation; encourage the chaebol to globalise their manufacturing operations; enable better access to overseas technology, and; ease friction with trading partners.\textsuperscript{38} The government immediately instructed the chaebol to increase the proportion of their total electronics output produced outside of South Korea from 2.4% to 58%.\textsuperscript{39} At the same time, the domestic banking system was deregulated. While chaebols had long been dependent on government directed capital sources, deregulation enabled them to fund long-term expansion with short-term loans from overseas sources.\textsuperscript{40} South Korea was now exposed to a central component of globalisation; vast and barely regulated cross-border flows of capital.
In response, chaebols embarked on a hugely ambitious series of overseas investments. The five largest chaebols acquired US$1.4 billion of foreign assets in 1994, some seventy per cent of that year’s total national outward investment. By 1996 cumulative South Korean investments in Europe reached some US$3.1 billion, three-quarters of which had arrived in the previous two years. This surge in investment was led by the ‘big four’ chaebols. Daewoo was again the most aggressive and owned 25 overseas manufacturing operations by 1996. Samsung expanded its North East of England operations and announced that it was to become one of the world’s ‘top 10 companies’ by 2000 through ‘accelerating globalization and localization’. Finally, in 1995 Hyundai announced a $6.6 billion expansion of semiconductor manufacturing overseas.

LG was not to be outdone. In 1994 it announced plans to increase overseas manufacturing from 10 per cent of its sales volume to 25 per cent by 1997. In 1995 Bon Moon Koo assumed the leadership of LG, following his father and grandfather. He immediately announced the ‘LEAP 2005’ plan, under which LG was to increase sales from $64 billion to $400 billion by 2005, surpassing Samsung to become the largest chaebol. LG’s new Chairman justified his ambition by stating that ‘if we do not compete on the world stage, we will have difficulty surviving. I [Chairman Koo] announced this lofty target to prevent us from becoming complacent with our past successes’. The chairman’s message spread quickly throughout LG’s senior management, as demonstrated by Park K. C., LG Electronics’ executive vice–president. In 1995 he declared: ‘if we decide we need it [an investment], bang! We go in. That’s the way it has to be. No nonsense. That’s what excites me about Korea’.
Business and the state in Wales

While South Korea industrialised, much of Wales deindustrialised as employment in its once dominant coal industry collapsed. Central governments sought to offset decline by compelling manufacturing to locate in Wales and expanding the state-owned steel industry. While these efforts were successful up to the early 1970s, their effectiveness subsequently dissipated and employee totals in manufacturing and extractive industries fell by over a third between 1975 and 1985. Although central governments were less interventionist from the mid–1970s, some activity continued in Wales given its economic weaknesses. Intervention was led by the Welsh Office, created in 1964 by central government as an administratively devolved department with responsibilities over activities including transport and economic development. The Prime Minister appointed a cabinet level Secretary of State for Wales to lead the department.

In the mid–1970s the Welsh Office created arm’s length economic development agencies, the most important being the Welsh Development Agency (WDA). The agency prioritised inward investment to offset the labour market impacts of deindustrialisation. It did this by working with the Welsh Office to assemble packages of property and grants which the WDA then marketed through its overseas offices. Manufacturing FDI emerged as the centrepiece of the Welsh Office’s approach to industrial policy, with politicians keen to obtain the positive publicity associated with factory openings. By 1991-92 Wales captured a fifth of all UK FDI projects, a proportion far greater than its 5% population share.

Awarding grants was an important element of attracting FDI. When investors sought a location, they identified desirable attributes across criteria including: infrastructure; labour availability; cost and skills; site availability; regulatory environment, and; financial incentives.
The investor then compared each location against these criteria to identify the most attractive. Although grants could not persuade companies to locate in an area with, for example, an inadequate labour supply, a large grant could tip the balance between locations with broadly similar characteristics. As a result, FDI projects were often subject to fiercely competitive bidding wars between rival regional agencies. The competitive environment created by bidding wars was symbolised by the WDA’s Chief Executive in the early 1980s specifically instructing his agency to surpass the FDI performance of the agency representing Scotland (Locate in Scotland).\textsuperscript{51}

The Welsh Office had two advantages when bidding for FDI projects. First, its administrative autonomy enabled grants to be maximised. An advisor to a Secretary of State for Wales recalled that:

It was always demand-led, that [FDI grant] budget. […] the money would always be found. And they would go back to [the UK government’s] Treasury, if they should have a major project with a big call on grants […] and usually negotiate a supplement.\textsuperscript{52}

The other advantage was the level of grants that the Welsh Office could offer within the confines of the European Commission’s ‘State Aid’ regulations that set grant ceilings throughout the European Union. Regulations restricted grants to a set proportion of the investor’s capital expenditure, and by the average cost of grant per employment opportunity established. The European Commission allocated higher limits to poorer regions, enabling public bodies in such areas to offer more grant. Wales’ mixed economic performance meant that limits were higher when compared to most of Europe, although lower than in peripheral areas such as southern Italy and Greece.\textsuperscript{53} The WDA took advantage of these regulations when
promoting Wales as an investment location, stating in marketing materials that financial support could ‘be amongst the most attractive in Europe’.  

In 1996 economic and political factors facilitated an unusually generous approach to FDI. In economic terms Wales’ share of the UK’s FDI market halved between 1991–92 and 1995–96. FDI projects choosing the UK were sourced increasingly from service sector projects but these tended to concentrate in London and the South East of England. In political terms the consensus within the Welsh Office and the WDA in favour of FDI was shattered by John Redwood, Secretary of State for Wales in 1993 and 1994. He was ideologically opposed to the ‘corporatist consensus’ behind intervention, preferring to seek economic growth through deregulation and entrepreneurship. His adviser, Hywel Williams, described bidding wars as ‘deeply demeaning […] saying, here is a terrible bit of the country, we will bribe you to come to it’. John Redwood immediately halved the WDA’s budget and restricted its ability to bid for FDI. His influence was embodied by the agency’s 1994 failure to secure Chunghwa Picture Tubes (CPT), a Taiwanese electronics plant expected to create 3,000 jobs. While the WDA was determined to win the bidding war, as implied by the agency’s use of ‘Project Perfect’ as an internal codename, its ability to do so was limited. Scottish agencies secured the project, even as the WDA was faxing grant offers to CPT on the day it agreed to locate in Scotland.

However, John Redwood’s role in the Welsh Office was short-lived. In June 1995 he resigned and was replaced as Secretary of State for Wales by William Hague. The new minister stated later that he wanted to ‘restore consensus’, which meant supporting FDI. The traditional desire of the Welsh Office and the WDA to attract FDI now reasserted itself. The managements of both bodies were determined not to lose any large projects to competitor agencies and they prioritised rebuilding Wales’ profile within the investment market.
Narrative: LG Newport, 1995 to 2006

The chase, 1995 to 1996

In September 1995 LG began to examine prospective locations for new factories to produce consumer electronics and semiconductors, contacting agencies including the WDA to gain information.\(^{61}\) William Hague signified LG’s importance to the Welsh Office by visiting South Korea within six weeks of the project emerging. Intense competition ensued between FDI agencies including those representing Scotland, the North of England, Wales, and the Republic of Ireland. While central government’s Department for Trade and Industry had long wanted to reduce the ability of the agencies representing parts of the UK to bid against each other,\(^{62}\) economic development was administratively devolved to Scotland and Wales. Both Secretaries of State resisted pressures to centralise bidding and fierce rivalry continued.

Commercial sensitivities meant that the bidding process was opaque, but by February 1996 the WDA judged that Wales was in the lead for the consumer electronics plant although Scotland held pole position for the semiconductor facility.\(^{63}\) The prospect of losing the semiconductor project and its well-paid research and development jobs reinforced the determination of the WDA and Welsh Office to secure both factories. At the same time, the long-standing rivalry between Welsh and Scottish agencies meant that the WDA was determined to avoid any repeat of its defeat in the bidding war for the Chunghwa Picture Tubes project.

By early 1996 LG had informally agreed to locate their investment in Newport. However, the chaebol was enraged by premature media reports and refused to commit formally.
Coincidentally, the Secretary of State for Scotland, Michael Forsyth, was in Asia and promptly visited LG to market Scotland. Unsurprisingly, the chaebol then reopened the bidding process to extract further grant. A concerned WDA noted that ‘progress has been difficult following the high-profile publicity given to this project […] there is a need to rebuild LG’s confidence in Wales before substantial progress can be achieved.

This determination to attract LG was reflected in the Welsh Office’s negotiations with HM Treasury over grant limits. The proposed site at Newport was in an area with relatively low state aid limits. However, the valleys of the former coalfield were a few miles to the north, and deindustrialisation meant that their state aid limits were higher than those in Newport. The WDA took advantage of this proximity, with a board member stating that:

We persuaded the Treasury […] that this [LG] could not be built in the Valleys, it was too big but [we said] who are the jobs for, the eastern and western Valleys so let’s suppose it’s in the valleys. OK said the Treasury, let’s draw a line around the site and you can give everything there that you can give in [the valleys].

The Welsh Office was determined to outbid its competitors and offered some £210 million in March 1996 for 4,900 jobs, but the entire project was jeopardised when LG proposed creating 800 fewer jobs without any corresponding reduction to the grants it was requesting. The Welsh Office refused to accept LG’s proposal as it would have breached state aid limits.

In June 1996 WDA representatives met LG in Seoul for four days of final negotiations over the package of grant aid. The supervisory civil servant recorded the frantic intensity of these talks, with LG refusing to compromise on its demands for grant support by the second
day and ‘blowing very hot and cold and behaving in an unpredictable way’. The chaebol’s negotiating power was clear on the third day; LG told the WDA that it was ‘being bombarded with [financial] offers from competitor [locations] and that if no agreement was reached by Thursday [the following day], negotiations would be broken off’. A previously unknown second phase of LG’s electronics facility suddenly emerged at the negotiating table and the WDA offered a further £40 million for this, bringing the cost of grant per employment opportunity for the entire project to below state aid limits. Thursday was recorded as a ‘nail biter’ before heads of terms were agreed, with the WDA’s Director of Investment informing his board that the ‘exceptional package [of investment] has called for extraordinary support’.

*The capture, 1996*

Reaction in Wales was euphoric as banner headlines declared that ‘Wales wins 6,000 jobs’. William Hague heralded the investment as ‘the biggest vote of confidence the Welsh economy has ever had’ and that ‘no other inward investment project in Europe has created so many jobs’, while Prime Minister John Major stated that it ‘reinforces Britain's progress in becoming the enterprise centre of Europe’.

LG Newport was split into three co-located projects. The first and second were factories producing consumer electronics, to be managed by LG Electronics (LGE). The first project was LGE phase 1 and was to create 2,412 jobs through annual production of 3.5 million CRT televisions and 2.5 million computer monitors. The second was LGE phase 2 which planned to create 1,998 jobs, although what it was to produce and when it was to open was unknown. The third project was a semiconductor factory to be managed by LG Semicon (LGS) that was to employ 1,696 people. The 6,106 jobs to be directly created by the three projects were to be
supplemented by indirect employment within their supply chains and beyond, with academic studies estimating that a further 8,000 jobs could be created.\textsuperscript{74} The projects’ scale was symbolised by the vast size of their buildings. The LGS facilities comprised 116,000 sq. m.,\textsuperscript{75} LGE’s phase 1 plants were 130,000 sq. m,\textsuperscript{76} and both combined to total almost 2.5 square kilometres of floor space. The size of LGE’s phase 2 buildings were unknown.

The cost of attracting LG to Newport was the offer of £247 million of government grants towards the total investment of £1.67 billion. The Welsh Office offered £69.5 million towards fixed assets while the WDA contributed £119 million towards construction and £27 million towards infrastructure.\textsuperscript{77} Training grants of £17.6 million were also offered and the £14.2 million site was provided without charge.\textsuperscript{78} However, the grants to LGE were all payable during phase 1, and the property grants were to be paid at 40\% of construction costs until the limit was reached. This approach was known as ‘front loading’ and while state aid rules did not explicitly forbid it, it was generally avoided. The risk was that LG could draw down LGE’s grant total regardless of whether phase 2 proceeded, breaching the state aid rules governing the average cost of grant per employment opportunity established if the second phase was not built. Despite risks, HM Treasury and the European Commission approved the grant package.\textsuperscript{79}

\textit{The collapse, 1996 to 2006}

The WDA prepared the site quickly after the project’s announcement, commencing ground clearing operations before the financial package was approved. According to the WDA’s Chief Economist, the agency:
Got in there, cleared that site, got rid of the overhead lines, the overhead cable lines. Worked with the local authorities to get the land [and] with the energy supply companies to get overhead cables out of the way. It did all of that very, very quickly, got energy [supply] and a massive clean room built in such a quick time. 80

The ground-breaking ceremony took place in January 1997 with LG Newport’s profile reflected by the attendance of John Major. 81 The project’s scale meant that 2,500 construction workers were on site by early 1998, 82 LGE produced its first CRT in November 1998 and some 1,700 people were employed. 83 Activity peaked in 2000 when LGE employed some 2,000 people, possessed a full order book and was constructing further warehousing space. 84 However, the WDA noted in mid-2000 that there was ‘no indication’ from LG as to when LGE’s phase 2 would commence. 85 In early 2001 LGE transferred its CRT production in Newport to a joint venture with Philips Electronics (LG Philips Displays) but in December 2001 the new company warned the agency about declining profits and closed the plant shortly afterwards. The empty factory was then purchased by a company manufacturing radiators, employing 480 people. By this time, the only remaining electronics operation at LG Newport was LGE’s production of Liquid Crystal Display (LCD) screens. This operation employed 400 people, but production ceased in 2006 and was transferred to LG’s plants in Poland. 86

LGE’s fate was sealed by two factors; product market change and the rise of alternative production locations. When the Newport factory was planned in the mid-1990s, the market for bulky CRT televisions and monitors appeared healthy with European sales growing from 28 million units in 1990 to 39 million in 1999. Although flat screen technologies such as plasma and LCD were being developed, production costs were high and mass market adoption was expected to be a protracted process. However, cheaper production technologies became
available after 2000. Prices then fell, and LCD sales outpaced those of CRTs by 2006.\textsuperscript{87} The process of change was summarised by LGE Newport’s manager at the time of the plant’s closure as: ‘when we set this plant up five years ago, the market [for CRTs] was very buoyant […] it was foreseen that the lifetime of CRT technology would be longer than what has taken place’.\textsuperscript{88}

While the entire plant could have switched to producing LCDs, the second factor now intervened. The 2004 accession of Poland and other eastern European states to the EU offered far cheaper locations within the single market to produce LCDs. In 2002 total hourly compensation for manufacturing workers was $2.54 in Poland, far below the UK’s $16.81.\textsuperscript{89} The predictable result was an FDI inflow to Eastern Europe, enabled by government agencies such as Invest in Poland, causing the WDA’s Investment Director to note in 2004 that an ever-increasing number of agencies used the ‘same messages of land, labour and lolly’.\textsuperscript{90} Ironically, the locational advantages that had attracted LG to Wales now applied to Poland while production could be transferred easily from one EU member state to another. In 2006 LG secured grants of €16.5 million towards its factory in Wroclaw.\textsuperscript{91} This facility received the production transferred from Newport and became LGE’s European manufacturing centre.

Rhodri Morgan, First Minister of the Welsh Assembly Government from 2001 (the body that controlled the former Welsh Office after political devolution in 1999), summarised the problem as:

Wales got badly squeezed, when the Poles and the Slovaks and so on, [came] into the European Community. They took all the factories, not only just the new ones, they were taking ones that were well established […] And Wales didn’t have a USP [unique selling
point] any longer because we couldn’t say we were the cheapest place in Europe to
manufacture your television set. That was Eastern Europe by a huge margin.\textsuperscript{92}

While LGE at least managed to enter production, LGS failed to do so. By early 1998 the
shell of its factory was complete, 114 staff had been recruited and production was planned to
commence in 1999. In May 1998 LG announced that production was to be delayed for a year
to allow the plant to be equipped to produce the next generation of semiconductors, positioning
the plant at the technological forefront of the industry. The Director of LGS Wales explained
the chaebol’s rationale for the delay as:

The continued good management of this project against challenging conditions in Korea is
an absolute priority for the company. That includes looking ahead to ensure we enter the
world market with a product that will keep us ahead of our competitors.\textsuperscript{93}

However, optimism was short lived. By October 1998 the WDA noted that LG’s intentions
as to semiconductor production at Newport were ‘confused’,\textsuperscript{94} and the suspension of the plant’s
equipment was indefinitely extended in 1999. The empty factory now embarked on a prolonged
afterlife as two factors, market change and the East Asian financial crisis, combined to remove
any chance it had to fulfil its intended purpose.

In relation to market change, LGS Newport was an ambitious attempt to expand within a
notoriously volatile industry, with six cycles of shortages and high prices leading to
investments, oversupply and price collapses between 1971 and 2000.\textsuperscript{95} However, the industry
was growing in the early 1990s and although Samsung’s CEO stated in 1994 that ‘it’s too risky
to depend on a single product like DRAMs [Dynamic Random Access Memory]’,\textsuperscript{96} any future
downturn was expected to be short-lived given the pace of technological advancement. Industry-wide sales began to fall in 1995 but the trough was far deeper and longer than previous cycles. Global DRAM sales halved between 1995 and 1997, with only a gradual recovery beginning in 1998. Prices collapsed with, for example, those of individual 16-megabit DRAMs falling by 80% in 1996. The industry struggled to cope with such rapid reductions and investments were delayed or cancelled.

Under normal circumstances, investment in LGS Newport may have been restarted after 1998 to take advantage of the cyclical upswing but this was derailed by the second factor, the East Asian financial crisis. Strong economic performance throughout East Asia had obscured weak fundamentals until a forced devaluation of the Thai baht in 1997 created financial panic. South Korean chaebols had by then financed their overseas expansion with short-term external loans equivalent to three times the country’s foreign exchange reserves. However, currency movements made exports less competitive and foreign denominated debt more expensive, causing chaebols to falter. While South Korean economic governance had long incorporated the concept that chaebols were ‘too big to fail’, the ‘segyewha’ administration was less convinced. A succession of small chaebols failed in mid-1997 and larger conglomerates were facing difficulties by December.

Domestic difficulties now coalesced with the crisis reverberating through East Asia, overseas investors withdrew funds from South Korea and the government was forced to ask the International Monetary Fund (IMF) for emergency support. As part of the IMF’s conditions, the chaebols were to be reformed and restrained. The government instructed chaebols to merge operations to trim excess capacity, Daewoo was declared bankrupt and its chairman fled abroad. LG was reluctant to lose control of its semiconductor division, but had little choice
once the government threatened to instruct creditor banks to impose sanctions. Agreement was reached for LGS to be taken over by Hyundai in mid-1999. However, Hyundai, renamed as Hynix Semiconductors, was itself on the verge of bankruptcy and was unable to equip the Newport plant.\textsuperscript{99}

By 2000 politicians in Wales were becoming increasingly concerned as to the fate of the empty semiconductor plant. In 2001 Hynix agreed that some of its assets in Wales would be transferred to the Welsh Assembly Government (the successor body to the Welsh Office) if no progress was made by the end of 2002. No progress was made, and undeveloped land as well as \textsterling14 million was transferred while the WDA was to market the empty factory. However, the decreasing chances of the factory being used for semiconductor production saw its value written down by 90%,\textsuperscript{100} with the agency’s marketing materials stating that it could ‘handle a variety of uses’.\textsuperscript{101} In reality, it was difficult to find an alternative use given that the interior was divided by many pillars to provide a sufficiently stable environment for semiconductor manufacturing. The plant was transferred to the WDA in 2005 and although it was partially reused as a data centre from 2009, some of the facility was still empty in 2017.

Overall, \textsterling131 million was paid to LGS and LGE, 53\% of the grant offered. Some \textsterling71 million in cash and property was eventually recovered. The government’s Wales Audit Office described this as ‘a good deal despite weaknesses in [the] bargaining position’,\textsuperscript{102} caused by frontloading and inadequate recovery provisions.

**Chaebol failure throughout the UK**

four’ chaebols experienced FDI failure in the UK, with those of Samsung and Hyundai mirroring LG Newport. The most notable failure was Samsung at Teeside, where a semiconductor and consumer electronics manufacturing complex had been planned from 1995. The semiconductor factory failed to enter production and was abandoned in 1997, with Samsung stating that ‘when we first proposed this, things looked very rosy […] all of a sudden came this oversupply’. Its monitor and microwave oven factory was more successful in the short-term, with its importance symbolised by the Queen’s attendance at the opening ceremony in 1996. Although 1,600 people were employed at its peak, numbers then fell and the factory closed in 2005. Production was moved to Slovakia while Samsung cited hourly wages of £1 in the newer location compared to £5.70 in Teeside as an important factor influencing its decision making.

Hyundai’s semiconductor facility in Scotland also followed a familiar pattern of great expectations followed by failure. Announced in 1996 with plans to create 2,000 jobs, the plant was constructed but never equipped. Efforts to sell the empty shell failed and the factory was demolished in 2011. Finally, Daewoo’s Antrim plant, once Europe’s second largest producer of video cassette recorders employing 1,000 people, closed in 2007 with the company citing its inability to compete against goods made in China and Turkey. Failures were not confined to South Korean FDI, as the Taiwanese CPT ‘Project Perfect’ that had been the subject of such fierce completion between the Scottish and Welsh authorities closed in 2002, after creating less than half of the jobs initially promised.

All of the ‘big four’ chaebol projects were located in parts of the UK most impacted by deindustrialization. As well as losing employment in heavy industries, many factories attracted to such regions up the early-1970s by interventionist policies closed from the 1980s onwards.
Public bodies saw FDI projects as a means of quickly replacing some of the jobs lost within such factories. However, these increasingly post-industrial regions were characterised by structural weaknesses such as low levels of skills, productivity, and wages. By the early twenty-first century, their main competitive advantage of low wages was being undermined by the accession of Eastern European states to the EU and they were increasingly unattractive as FDI locations.

Discussion

While chaebols had expanded abroad from the late 1980s, overseas growth was on a far greater scale from 1995. The narrative of this expansion prompts two questions; what factors pushed LG’s management to carry out a large-scale programme of FDI, and what pulled them to Newport?

What factors pushed LG’s management to carry out its FDI programme? Three were apparent. The least important factor was purely commercial. Since the late 1980s the commercial challenges of high labour costs in South Korea and the growing importance of regional trade blocs had encouraged chaebols to invest overseas with encouraging results. The expectation in LGE and the consumer electronics industry throughout the mid-1990s was that CRT production would remain viable for many years, while facilities could eventually switch to manufacturing LCDs. In the mid-1990s eastern European states were not part of the EU and the accession timetable was expected to be prolonged. LG could not afford to wait many years to establish consumer electronics manufacturing operations in Europe. Even so, the extent to which LGE was a complete failure from LG’s perspective is questionable, as the chaebol easily transferred production to a cheaper EU location in Poland once this option existed in 2006,
obtaining further grant. However, LGS was clearly a very significant failure for LG. It was a large-scale expansion into a volatile and competitive sector and was always high-risk. Despite this, the industry consensus in 1995 was that any future downturn in DRAMs would be short-lived and LG’s management used this mistaken assumption to justify expansion. Once the DRAM market was recovering by 1998, financial crisis prevented the South Korean Government from covering soft budgets of the scale needed to equip the empty LGS plant.

While there may have been rationale for FDI on a limited scale as was the case before 1995, this cannot fully explain the subsequent conduct of LG’s management. Crucially, the commercial salience of South Korean labour costs and overseas trading blocs in 1995 had changed little from preceding years, but LG decided to greatly expand its overseas operations regardless. This decision was in part linked to the second factor; the importance of status within South Korea. From 1995 chaebol leaderships consistently and publicly outlined their plans to grow at a faster rate than their competitors. Wildly ambitious targets were announced, before being transmitted through the chaebols’ rigid hierarchies where instructions were rarely, if ever, challenged. However, intense rivalry between chaebols had long been a feature of the South Korean business environment, but did not lead to large scale FDI programmes prior to 1995.

The third and most important factor in explaining the conduct of LG’s management from 1995 was institutional behaviour in South Korea. This encouraged business behaviour that was ultimately destructive, as proposed by Baumol’s public choice arguments as to how such behaviour can be shaped by institutions. The crucial element was the government’s ‘segyewha’ programme, under which chaebols were instructed to expand overseas production. The importance of the state within the South Korean economy meant that chaebol leaders had
little choice but to commit publically to hugely ambitious globalisation strategies in what was described by international media as an ‘orgy of expansion’.  

Simultaneously, the government unwisely allowed chaebols to gain unfettered access to international capital through bank deregulation. The state had long used its control over chaebols’ access to finance to channel and contain any exuberance, but it now largely abandoned this role. The vast size of the investments inevitably increased the chaebols’ exposure to financial risks, exacerbated further by their new reliance on short-term debt from overseas sources. However, chaebols’ status of being ‘too big to fail’ combined with their expectation of state support to create an SBC scenario of the type outlined by Kornai, and their managements were emboldened to ignore risk. A counterfactual scenario could have seen LG expand overseas on a more incremental and less ambitious scale, but institutional distortions meant that this would have been politically difficult. Other chaebol investments in the UK followed a similar trajectory to that of LG Newport, demonstrating the lack of purely firm-specific factors driving decision making.

What pulled LG to Wales, creating such a spectacular failure from the perspective of the WDA and Welsh Office? LG was pulled to Newport by three institutional factors which combined to encourage rent-seeking behaviour as the chaebol moulded institutional behaviour to its own benefit, in line with Henrekson and Sanandajis’ arguments. The first and most important factor was that the Welsh Office prioritised economic development. FDI offered opportunities to create jobs quickly while the scale of promised employment obscured the risks and opportunity cost of subsidies. Once John Redwood had been succeeded by William Hague, the Welsh Office and the WDA were determined to regain Wales’ position as a leading FDI location. LG presented an obvious opportunity as it promised to directly create 6,100 jobs,
higher than the 4,500 jobs linked to all FDI in Wales during 1995-1996.\textsuperscript{109} Ron Davies, Secretary of State for Wales after 1997, noted the attractiveness of LG to public bodies:

> The promise [of LG], if it had realised, would have transformed the economy of south-east Wales […] it was going to turn south Wales into the computer industry capital of western Europe. So there was a lot of potential for a lot of high flown rhetoric.\textsuperscript{110}

The second institutional factor enabling rent seeking was the fierce competition between agencies. This was accentuated by government bodies in Wales and Scotland using their administratively devolved institutional arrangements to outbid the English regions. However, while central government sometimes intervened to support an English region, such as awarding the Northern Development Corporation extra funding to outbid Scottish authorities for the Samsung project in 1995,\textsuperscript{111} this was unusual and did not happen with LG.

Government bodies in Wales and elsewhere were in a prisoner’s dilemma. They knew that LG would orchestrate a bidding war that would increase the subsidy required to secure the project. While a collective refusal to bid could have avoided this, administrative devolution meant that a co-ordinating mechanism to enforce a joint refusal did not exist. At the same time, the project’s potential for economic impact and job creation meant that it proved difficult to resist, especially in Wales even though the scale of subsidy involved significant opportunity cost. A bidding war ensued, and LG inevitably sought rent as suggested by Mazzucato as grant enabled risk to be socialised without any need to share returns. Similar dynamics existed throughout the EU, with Shin’s survey noting the importance of subsidies to 26 South Korean firms investing throughout the EU in the 1990s.\textsuperscript{112}
The final institutional factor was loopholes in the state aid rules governing the provision of grants. Grants to investors were normally paid in instalments linked to verifiable achievements such as factory completion or job creation. However, there was a difference between the grant requested by LG during final negotiations in Seoul and the amount that could be offered under state aid rules. This gap was bridged by the chaebol promising a further 800 jobs through an unspecified extension to its electronics plant. The WDA and Welsh Office then unwisely offered a package of financial support that enabled LG to draw down grant for the entire project before this second phase commenced. While this had clear advantages for LG, the decision exposed the WDA and Welsh Office to the risk of being unable to claw back grant if the extension failed to proceed.

Distorted institutional environments in Wales and South Korea had a crucial influence over the actions of all actors. Distortions in South Korea enhanced existing commercial ambition on the part of LG, combining with the determination of the chaebol’s management to outgrow other chaebols to create an overly ambitious project. Distortions in Wales created an overly generous grant package that was structured to increase risk for the WDA and Welsh Office, but decrease such risk for LG.

**Lessons for industrial policy**

The key lessons from LG Newport for industrial policy are that public authorities should be more aware of rent seeking and that emphasising FDI as a panacea for regional economic problems is unwise. The challenge is to find a balance between attracting FDI with its significant economic benefits while avoiding corporate rent-seeking. However, reforming industrial policy is challenging. Public choice, supported by the empirics of this case study,
argues that government agencies seeking to attract FDI have a tendency towards opportunistic behaviour. Such behaviour is facilitated within the UK as devolved governments jealously guard their abilities to attract FDI. Any attempt by central government to centralise the bidding process was seen as undermining devolution and involved political risk. For example, the UK Government’s President of the Board of Trade, Margaret Beckett, told the WDA after the LG bidding war that competition over FDI had been ‘too focused on financial support rather than the genuine comparative advantage of different regions’ leading to a ‘wasteful use of taxpayers money’. However, there were no subsequent changes to devolved governments’ ability to bid for FDI.

Institutional structures in Wales also restrict the extent to which industrial policy can be reformed by Wales-based bodies, as can be illustrated by two examples. First, while John Redwood prevented aggressive bids for FDI, the Welsh Office’s limited responsibilities meant that he lacked the institutional power to implement his preferred option of deregulation. The second example was the difficulty of applying a South Korean ‘developmental state’ approach to Wales, given that its political institutions had no responsibility over topics such as taxation or trade policy, and its economy was overseen by central governments ideologically opposed to the type of policies carried out by the South Korean state.

Despite challenges, restructuring the provision of financial support away from grants towards sharing in the benefits of successful investments may help avoid some of the pitfalls exposed by LG, although the mobile nature of FDI means that countries that do this may struggle to compete with locations offering grant. Overall, LG Newport’s failure does not mean that FDI must be abandoned as an element of industrial policy. FDI should instead form only
part of a broader approach across both indigenous and inward investment, one that could also address the opportunity cost of subsidies.

Within South Korea, although the ‘developmental state’ transformed the economy, it also created SBC and regulatory problems given that the chaebols became ‘too big to fail’. As noted by Crafts, this created risks when the economy was partially liberalised. The state had long influenced chaebols through controlling the allocation of investment capital, but banking deregulation combined with SBC to create unsustainable levels of debt fuelled FDI. While the financial crisis and the failure of Daewoo drove saw reforms to chaebol governance and the trial and imprisonment of some executives, their dominant position within the economy remained largely intact.

Conclusion

The empirical evidence of the case study demonstrates how an incentives approach, drawing on public choice, SBC and game theory can explain the behaviour of businesses and public bodies in certain circumstances. A focus on distorted institutional environments can answer the puzzle of how business and public bodies may behave in a manner that creates wasteful outcomes, as was the case for LG Newport and the WDA. Such an institutional focus provides a fuller explanation of the scale and trajectory of South Korean FDI into the UK during the 1990s than those provided by narrowly firm-specific or cultural explanations. Recent work on industrial policy by Mazzucato and Moretti has considered how risk and reward may be shared more equitably between the public and private sectors, and the findings of this case study may be of relevance to policymakers seeking to design industrial policies that are more equitable and effective.
Notes

1 Friedman and Jones. *Time for Debate*, 1.
2 De Jong et al. *Towards a New Business History*.
3 Fridenson. *Business Failure and the Agenda of Business History*, 570-571.
4 The ‘cultural’ approach is outlined within Fridenson, *Business Failure and the Agenda of Business History*. Many studies (e.g.: Graham, *RCA and the Videodisk: The Business of Research*) fit within the narrow firm-level approach. The ‘incentives’ approach includes works such as: Buckley, *Business History and International Business*; Brownlow. *Back to the Failure: an Analytic Narrative of the De Lorean Debacle*, and; Brownlow. *Soft Budget Constraints and Regional Industrial Policy: Reinterpreting the Rise and Fall of DeLorean*.
7 In the 1960s, theorists such as Hymer rejected perfectly competitive markets, instead focusing on the ability of firms dominant in home markets to use company-specific scale factors to expand through FDI. Dunning’s Ownership, Location and Internalization (OLI) stressed the importance of such factors within FDI. Later refinements to OLI explained the existence of multinational corporations (MNCs) and hence FDI, through transactional market failures. Such ‘internationalisation’ theory proposes that MNCs invest internationally when the transaction costs of intermediate goods are greater than the internal governance costs of transnational production. Rugman and Verbeke extended this by highlighting MNC’s manipulation of internal resources to gain competitive advantage, while Matthews emphasized the capture of external resources as a strategic goal of internationalization. Theorising moved beyond narrow market power and efficiency-based considerations towards strategic management issues, but generally stressed the importance of company specific factors. See Hymer. *The International Operations of National Firms*; Dunning and Lundan. *Multinational Enterprises and the Global Economy*; Dunning and Narula. *Multinationals and Industrial Competitiveness*; Rugman and Verbeke. *Extending the Theory of the Multinational Enterprise*; Matthews. *Response to Professors Dunning and Narula*.
8 Wade. *Governing the Market*, 342.
Coase. *The New Institutional Economics*, 73. A dictionary definition of New Institutional Economics (NIE) is ‘a set of analytical tools or concepts from a variety of disciplines in the social sciences, business and law. The NIE addresses two overarching issues: what are the determinants of institutions – the formal and informal rules shaping social, economic and political behaviour? And what impact do institutions have on economic performance?’


North and Thomas’ broad explanatory models for economic change incorporate a range of factors across politics, ideology and beliefs, emphasising how poor institutional design impairs economic performance. See North and Thomas. *The Rise of the Western World.*


Henrekson and Sanandaji. *The Interaction of Entrepreneurship and Institutions.*


Mazzucato. *The Entrepreneurial State*, 195-206


Chang. *Political Economy of Industrial Policy in Korea*, 153


Crafts. *East Asian Growth*, 156, 162.


Koo. *Crisis, Customers and Change*, 245.


37 ‘Hollowing out South Korea’s Corporations.’ *The Economist*, 14 September 1996.


40 Kang. ‘Developmental State Reform.’ In *Korea’s Globalisation* edited by Kim, 94.


45 The National Archives (Hereafter TNA) WA 8/237 WDA Board Papers, 2 October 1996.


49 Gooberman. *Welsh Office Exceptionalism*.

50 United Kingdom Trade and Investment (Hereafter UKTI) project database, author’s calculations.

51 Author’s interview with David Waterstone, WDA Chief Executive (1980-1989), January 2012.

52 Author’s interview with Jim Driscoll. Advisor to Secretary of State for Wales, and Under Secretary at Welsh Office Industry Department (1982–1985), March 2012.


54 WDA. *Advantage Wales*.

55 UKTI project database, author’s calculations.


58 ‘Why Investors are Giving Wales the Cold Shoulder’, *Western Mail*, 3 October 1995.


For example, a Japanese car project (Nissan) was the subject of a furious exchange of letters between the Secretary of State for Wales (Nicholas Edwards) and the Secretary of State for Industry (Keith Joseph) in 1981, with the former successfully defending his ability to court overseas investment. See National Library of Wales, Crickhowell Papers, 1/4 and 3/15.

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104 ‘*Samsung Abandons £450 Million Semiconductor in the North East*’, The Independent, 28 November 1997.
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