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Online Appendix:
“Not Just a Work Permit: EU Citizenship and the Consumption Behavior
of Documented and Undocumented Immigrants”
by Effrosyni Adamopoulou and Ezgi Kaya

Online Appendix A. Data

ISMU data

Our main data source is an annual survey launched in 2001 by a non-governmental organization, the Institute for Multiethnic Studies (ISMU) to study the foreign population residing in the Lombardy region of Italy. Each survey takes place between May and mid July and consists of a random sample of about 8,000 immigrants, who are aged 15 and over and reside in Lombardy at the time of the interview. Its two-stage sampling scheme, the Centre Sampling Method (Baio et al., 2011), was specifically designed to collect information on a representative sample of both documented and undocumented immigrants. At the first stage municipalities are selected according to their share of immigrants, their socio-economic situation and their demographic representativeness at the regional level. At the second stage, for each municipality a set of ‘aggregation centers’ that the target population frequently visit (e.g. mosques, churches, language centers, etc.) are identified and immigrants are randomly selected in each center. Interviewees then are asked to answer a set of questions through a face-to-face interview by interviewers with a foreign background, who have undergone specific training and emphasize the independence of ISMU from the government at the beginning of the interview.

The statistical unit of analysis in the ISMU surveys is the individual and data include detailed information on personal characteristics such as country of origin, whether the respondent has a valid residence permit or not, type of residence permit, age, gender, education, marital status, years of residence in Italy, as well as on labor market characteristics of employed respondents such as type of employment (self-employed/employee), occupation, and sector (informal/formal) of employment, labor income, as well as some information on the household characteristics (e.g. average monthly household expenditure, household size, number of children,

whether the spouse lives with the respondent, whether the type of accommodation is own property).

We restrict our sample to immigrants from Romania and Bulgaria (treatment group) and from Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey (control group) who arrived in Italy before 2007, who do not hold Italian citizenship by the time of the interview and with no more than ten years of residence in Italy by the time of the EU accession. In our main analysis we use data from the 2004-2012 surveys as information on household consumption expenditure is available only after 2004, whereas information on labor market outcomes is available also in 2001-2003. Thus, our labor market analysis utilizes the 2001-2012 survey data.

Table A1 displays the average characteristics of the immigrants in the ISMU survey and in the official registry of immigrants residing in Lombardy in 2006 provided by the Italian National Institute of Statistics (ISTAT).¹ The comparison of columns 1 and 2 confirms that the ISMU survey is representative of the immigrant population in Lombardy in terms of nationality and gender.

Italian Social Security (INPS) records

The source for the data consists of social security payments made by legal entities to the Italian National Social Security Institute (INPS) for all employees with open-ended (permanent), fixed-term (temporary) and apprenticeship contracts. From this master data, INPS extracts two datasets which can be linked to each other. The first consists of the universe of firms with at least one employee at some point during a given calendar year and provides data at the establishment level. The second consists of the employment histories of all workers born on the first or the ninth day of each month (24 dates). The worker extraction provides information on demographics, annual gross wages, the number of months and days worked, the type of employment contract (permanent or temporary) and whether the job is full time or part time. We construct daily (monthly) wages by dividing annual gross wages with the number of days (months) worked and we express the wages of part-time workers in full-time equivalent units. In our analysis, we restrict the sample to immigrants from Romania and Bulgaria (treatment group) and from Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey (control group) that work in a firm located in Lombardy and appear at least once in the Social Security records before 2007 with less than 10 years of

¹We report these statistics for 2006, which is the year before the EU enlargement.

experience. In this way, we ensure the comparability of the results with the estimates obtained using the ISMU survey. Furthermore, we consider workers aged between 20 and 64 that have worked for at least 15 days each year² so as to have a well-defined measure of wage even for immigrant workers with weak labor market attachments and to exclude possible students or retirees.

Survey on Income and Life Conditions of Households with Foreigners

As the ISMU data do not contain any information on mortgages, we complement our analysis using data from the Survey on Income and Life Conditions of Households with Foreigners, which is the European Union Statistics on Income and Living Conditions (EU-SILC) Italian Module on Foreign Population that was collected by the Italian Institute of Statistics (ISTAT) in 2009. The survey has been conducted only once and followed closely the design of the EU-SILC but with a sample exclusively composed of households with at least one foreigner (who is residing in Italy and do not have Italian citizenship). The sample includes 6,014 families and 15,036 individuals (9,243 of at least 15 years old at the end of the income reference period) were surveyed in all the Italian regions. The content of the questionnaire followed closely that of the EU-SILC 2009 survey, with some additional questions particularly relevant for the foreign population. The survey contains information on whether households have a mortgage, and if they do, information on the year that they obtained it (see, for more information, <https://www.istat.it/it/archivio/52405>).

In our analysis, we consider only household heads and restrict our sample to immigrants from Romania and Bulgaria (treatment group) and from Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey (control group) who arrived in Italy before 2007, who do not hold Italian citizenship by the time of the interview and with no more than ten years of residence in Italy by the time of the EU accession.

²We get very similar results if we increase the threshold to 20 or 30 days worked per year.

Table A1. Representativeness of the ISMU survey

| | ISMU | ISTAT |
|-----------------------|------|-------|
| | (1) | (2) |
| By gender (%) | | |
| Males | 52.5 | 58.6 |
| By nationality (%) | | |
| Treated | | |
| Romania | 7.7 | 5.8 |
| Bulgaria | 0.8 | 0.6 |
| Control | | |
| Albania | 10.5 | 9.0 |
| Serbia and Montenegro | 1.3 | 1.2 |
| Moldova | 1.1 | 2.0 |
| Macedonia | 1.0 | 0.5 |
| Turkey | 0.7 | 0.8 |
| Bosnia-Erzegovina | 0.6 | 0.5 |
| Croatia | 0.4 | 0.5 |

Data source: Institute for Multiethnic Studies (ISMU) survey 2006

and official registry data (<http://demo.istat.it/archivio.html>).

Table A2. ISMU survey questions on consumption, savings, remittances and household income

| D. Considerando <i>il suo nucleo familiare convivente in Italia</i>, quanto spendete mensilmente, in media, per... | |
|--|--|
| A Spesa per generi alimentari; abbigliamento... | € __ __ __ __ Non sa/nd[...]9999 <i>(scrivere la cifra senza decimali)</i> |
| B Spesa per la casa (affitto, mutuo, bollette, manutenzione...) | € __ __ __ __ Non sa/nd[...]9999 <i>(scrivere la cifra senza decimali)</i> |
| C Altre spese (trasporti, giocattoli, libri, tempo libero, ristoranti, regali, interessi, acquisti rateali, debiti...) | € __ __ __ __ Non sa/nd[...]9999 <i>(scrivere la cifra senza decimali)</i> |
| E quanto riuscite a... | |
| E Inviare al paese di origine | € __ __ __ __ Non sa/nd[...]9999 <i>(scrivere la cifra senza decimali)</i> |
| F Risparmiare | € __ __ __ __ Non sa/nd[...]9999 <i>(scrivere la cifra senza decimali)</i> |
| Q. Considering <i>your household members living with you in Italy</i>, how much do you spend per month, on average, for... | |
| A Expenditures for food, clothing... | € __ __ __ __ Not know/na[...]9999 <i>(write the amount without decimal points)</i> |
| B Expenditures for housing (rent, mortgage, bills, maintenance...) | € __ __ __ __ Not know/na[...]9999 <i>(write the amount without decimal points)</i> |
| C Other expenditures (transportation, toys, books, leisure, restaurants, gifts, interest rates, installment purchases, debts...) | € __ __ __ __ Not know/na[...]9999 <i>(write the amount without decimal points)</i> |
| And how much do you manage to... | |
| E Send to the country of origin | € __ __ __ __ Not know/na[...]9999 <i>(write the amount without decimal points)</i> |
| F Save | € __ __ __ __ Not know/na[...]9999 <i>(write the amount without decimal points)</i> |
| D. Considerando tutte le diverse fonti (reddito da lavoro, rendite, aiuti ...), qual è all'incirca la somma complessiva media mensile delle entrate monetarie del suo nucleo familiare? | |
| | € __ __ __ __ Non sa/nd[...]9999 |
| Q. Considering all different sources (labor income, annuities, aid ...), what is roughly the total monthly average income of your household? | |
| | € __ __ __ __ Not know/na[...]9999 |

Data source: Institute for Multiethnic Studies (ISMU) surveys, 2004-2012. Notes: The household income question is not included in the survey for the years prior to 2007. Respondents were provided a definition of 'Household' that is: "By 'household' we mean only the group of people who also share common expenses (food, clothing, leisure) and earnings. People who live under one roof do not necessarily form a household" (original in Italian: "Per 'nucleo familiare' intendiamo esclusivamente il gruppo di persone che condividono anche le spese comuni (cibo, abbigliamento, tempo libero) e i guadagni). Le persone che vivono sotto lo stesso tetto non costituiscono necessariamente un nucleo familiare."

Table A3. ISMU data, variable definitions

| Variable | Type | Definition |
|--|-------------|--|
| <hr/> Individual characteristics <hr/> | | |
| Country of origin | categorical | Country of origin of the respondent |
| Gender | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent is a male} \\ 1 \text{ if the respondent is a female} \end{array} \right.$ |
| Age | continuous | in years (15+) |
| Education | categorical | $\left\{ \begin{array}{l} 1 \text{ None} \\ 2 \text{ Primary/Compulsory education} \\ 3 \text{ Secondary education} \\ 4 \text{ Tertiary education or above} \end{array} \right.$ |
| Years of residence | continuous | years of residence in Italy |
| Documented | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent has no valid residence permit} \\ 1 \text{ if the respondent reported to have a valid residence permit} \\ \text{or currently renewing the temporary residence permit, or} \\ \text{is an applicant for legalization} \end{array} \right.$ |
| <hr/> Household characteristics <hr/> | | |
| Number of household members | continuous | Total number of family members living with the respondent in Italy that the reported household consumption expenditures correspond to |
| Children | binary | $\left\{ \begin{array}{l} 0 \text{ if number of children is zero} \\ 1 \text{ if number of children is positive} \end{array} \right.$ |
| Number of children | continuous | Total number of children (living in Italy or abroad) |
| N. of cohabiting children | continuous | Number of children living with the respondent |
| N. of cohabiting non-adult children | continuous | Number of children younger than 18, living with the respondent |
| Spouse living abroad | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent is single or is married and the spouse} \\ \text{is listed among the household members in Italy} \\ 1 \text{ if the respondent is married but the spouse is not listed} \\ \text{among the household members in Italy} \end{array} \right.$ |

Table A3 (cont.). ISMU data, variable definitions

| Variable | Type | Definition |
|------------------------------|------------|---|
| Labor market characteristics | | |
| Labor income | continuous | net of taxes, Euros per month (0 if not employed) |
| In the labor force | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent reported to be a} \\ \text{student/homemaker/retired} \\ 1 \text{ if the respondent reported to be} \\ \text{unemployed/an employee/self-employed} \end{array} \right.$ |
| Employed | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent is unemployed/student/homemaker/retired} \\ 1 \text{ if the respondent is an employee/self-employed} \end{array} \right.$ |
| Employee | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent is self-employed} \\ 1 \text{ if the respondent is an employee} \end{array} \right.$ |
| Formal sector | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent is an employee and reported to work} \\ \text{in the formal sector} \\ 1 \text{ if the respondent is an employee and reported to work} \\ \text{in the informal sector} \end{array} \right.$ |
| Permanent contract | binary | $\left\{ \begin{array}{l} 0 \text{ if the respondent is an employee and reported to work} \\ \text{under a temporary contract} \\ 1 \text{ if the respondent is an employee and reported to work} \\ \text{under a permanent contract} \end{array} \right.$ |

Online Appendix B. Additional Tables and Figures

Table B1. Estimated effect of EU enlargement on the log monthly consumption expenditure of immigrant households from new EU member countries, short-term analysis with actual and placebo dates

| | Actual date (2007) | Placebo date (2006) | Placebo date (2005) |
|---------------------------|--------------------|---------------------|---------------------|
| post | 0.052** (0.024) | 0.031 (0.027) | 0.095** (0.046) |
| new EU x post | 0.089** (0.034) | -0.006 (0.028) | 0.013 (0.050) |
| Country of origin dummies | Yes | Yes | Yes |
| Province dummies | Yes | Yes | Yes |
| Individual controls | Yes | Yes | Yes |
| Household controls | Yes | Yes | Yes |
| Labor income | Yes | Yes | Yes |
| Nobs | 1,627 | 1,341 | 1,098 |
| Adjusted R ² | 0.468 | 0.472 | 0.463 |

Data source: Institute for Multiethnic Studies (ISMU) surveys, 2006-2007 in column titled “Actual date (2007)”, 2005-2006 in column titled “Placebo date (2006)”, and 2004-2005 in column titled “Placebo date (2005)”. Post is a dummy variable indicating the actual date of accession (pre=2006, post=2007) in column titled “Actual date (2007)”, and the placebo dates of accession (pre=2005, post=2006 in column titled “Placebo date (2006)” and pre=2004, post=2005 in column titled “Placebo date (2005)”). * p<0.10, ** p<0.05, *** p<0.01. Two-way clustered standard errors (at Italian province of residence and at country of origin level) are in parentheses (88 clusters). All specifications include country of origin and Italian province of residence fixed effects, and a constant term. Individual controls include respondent’s gender, age, age squared, dummies for education level (none, primary, secondary, tertiary), and years of residence in Italy. Household controls include an indicator for having a spouse living abroad, number of household members, number of children, number of cohabiting children, number of cohabiting nonadult children, and a dummy for living in own property in Italy. Labor income is the average monthly labor income (net of taxes) of the respondent. See Online Appendix A for variable definitions.

Table B2. Estimated effect of EU enlargement on part time versus full time employment of immigrant households from new EU member countries (2001-2012)

| | Part time employment |
|-------------------------|----------------------|
| | (1) |
| new EU x year 2002 | 0.014 (0.070) |
| new EU x year 2003 | 0.017 (0.052) |
| new EU x year 2004 | 0.008 (0.032) |
| new EU x year 2005 | 0.020 (0.056) |
| new EU x year 2006 | 0.007 (0.028) |
| new EU x year 2007 | 0.017 (0.031) |
| new EU x year 2008 | 0.041 (0.039) |
| new EU x year 2009 | -0.002 (0.036) |
| new EU x year 2010 | -0.010 (0.041) |
| new EU x year 2011 | 0.023 (0.049) |
| new EU x year 2012 | 0.044 (0.029) |
| Year dummies | Yes |
| Country of origin dum. | Yes |
| Province dummies | Yes |
| Individual controls | Yes |
| Nobs | 5,562 |
| Adjusted R ² | 0.126 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2001-2012. * p<0.10, ** p<0.05, *** p<0.01. Two way clustered standard errors (at Italian province of residence and at country of origin level) are in parentheses (121 clusters). All specifications include a constant term, year, country of origin and Italian province of residence fixed effects. Individual controls include respondent's sex, age, age squared, dummies for education level (none, primary, secondary, tertiary), and years of residence in Italy. The information on part time versus full time employment is only available for formal sector employees. See Online Appendix A for the remaining sample restrictions and variable definitions.

Table B3. Italian Social Security (INPS) records, sample means

| | Before EU enlargement | | After EU enlargement | |
|---------------------------------|------------------------|--|------------------------|--|
| | Romanians & Bulgarians | Immigrants from EU candidate countries | Romanians & Bulgarians | Immigrants from EU candidate countries |
| | (1) | (2) | (3) | (4) |
| Monthly labor income (in Euros) | 1380.33 (479.31) | 1331.29 (439.06) | 1710.32 (616.99) | 1651.86 (577.02) |
| Daily labor income (in Euros) | 59.66 (19.29) | 57.70 (17.98) | 73.49 (23.42) | 71.93 (22.25) |
| Permanent contract (dummy) | 0.79 | 0.85 | 0.81 | 0.85 |
| Female (dummy) | 0.35 | 0.20 | 0.41 | 0.23 |
| Age (in years) | 33.39 (8.09) | 32.20 (8.52) | 37.71 (8.21) | 36.05 (8.73) |
| Number of observations | 7,034 | 9,401 | 9,285 | 12,361 |

Data source: Italian Social Security (INPS) records 2001-2012. Sample includes immigrants from Romania, Bulgaria and candidate countries (Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey) who work in a firm located in Lombardy and appear at least once in the social security records before 2007 with less than 10 years of experience. Standard deviations of the continuous variables are in parentheses.

Table B4. Estimated effect of EU enlargement on total savings of immigrant households from new EU member countries (2004-2012) with partial imputation

| | OLS | OLS | Linear probability model |
|-------------------------|----------------------|----------------------|--------------------------|
| | Log modulus (amount) | asinh(amount) | (=1 Yes, =0 No) |
| | Total savings | Total savings | Prob(savings) |
| new EU x year 2005 | 0.120 (0.268) | 0.137 (0.300) | 0.025 (0.045) |
| new EU x year 2006 | -0.479 (0.442) | -0.535 (0.493) | -0.081 (0.074) |
| new EU x year 2007 | -0.403 (0.427) | -0.463 (0.476) | -0.086* (0.051) |
| new EU x year 2008 | 0.012 (0.247) | -0.004 (0.276) | -0.010 (0.033) |
| new EU x year 2009 | 0.214 (0.415) | 0.234 (0.467) | 0.015 (0.066) |
| new EU x year 2010 | -0.577 (0.366) | -0.673* (0.400) | -0.104** (0.041) |
| new EU x year 2011 | -0.386* (0.230) | -0.467* (0.251) | -0.097*** (0.028) |
| new EU x year 2012 | -0.887*** (0.286) | -0.999*** (0.323) | -0.154*** (0.040) |
| Year dummies | Yes | Yes | Yes |
| Country of origin dum. | Yes | Yes | Yes |
| Province dummies | Yes | Yes | Yes |
| Individual controls | Yes | Yes | Yes |
| Household controls | Yes | Yes | Yes |
| Labor income | Yes | Yes | Yes |
| Nobs | 4,233 | 4,233 | 4,233 |
| Adjusted R ² | 0.187 | 0.182 | 0.146 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2004-2012. * p<0.10, ** p<0.05, *** p<0.01. asinh is inverse hyperbolic sine. Two-way clustered standard errors (at Italian province of residence and at country of origin level) are in parentheses (121 clusters). All specifications include year, country of origin and Italian province of residence fixed effects, and a constant term. Individual controls include respondent's gender, age, age squared, dummies for education level (none, primary, secondary, tertiary), and years of residence in Italy. Household controls include an indicator for having a spouse living abroad, number ber of household members, number of children, number of cohabiting children, number of cohabiting non adult children, and a dummy for living in own property in Italy. Labor income is the average monthly labor income (net of taxes) of the respondent. See Online Appendix A for variable definitions and sample restrictions. Total savings are imputed as household income minus total consumption whenever household income is available (2007-2012).

Table B5. Relative size of treatment and control groups before 2007 by Italian province of residence

| Italian province of residence | Before the EU enlargement | | Number of observations |
|-------------------------------|---------------------------|-----------|------------------------|
| | % treated | % control | |
| Province of Cremona | 49.54 | 50.46 | 343 |
| Metropolitan City of Milan | 47.94 | 52.06 | 247 |
| Province of Pavia | 45.60 | 54.40 | 125 |
| Province of Sondrio | 43.20 | 56.80 | 922 |
| Province of Mantua | 41.67 | 58.33 | 300 |
| Province of Lodi | 41.58 | 58.42 | 383 |
| Province of Varese | 35.57 | 64.43 | 318 |
| Province of Brescia | 33.16 | 66.84 | 216 |
| Province of Lecco | 24.55 | 75.45 | 168 |
| Province of Como | 21.86 | 78.14 | 110 |
| Province of Bergamo | 21.00 | 79.00 | 202 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2004-2006. The sample includes immigrants who arrived in Italy before 2007, with no more than ten years of residence in Italy by 2007, who did not hold Italian citizenship by the time of the interview. Treated: Nationals of Romania and Bulgaria. Control: Nationals of Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey.

Table B6. Fraction of treatment group by occupation, before and after the EU enlargement

| Occupation | % treated | | p.p. change in the fraction of treated |
|-----------------------------------|-------------|------------|--|
| | Before 2007 | After 2007 | |
| White collar employees | 26.32 | 45.16 | 18.85 |
| Domestic workers (occasional) | 41.46 | 51.64 | 10.17 |
| Transport workers | 36.99 | 46.39 | 9.40 |
| Doctors and paramedics | 40.00 | 49.18 | 9.18 |
| Artisans | 29.94 | 38.89 | 8.95 |
| Cleaning workers | 37.11 | 45.45 | 8.34 |
| Prostitutes | 41.67 | 50.00 | 8.33 |
| Social field assistants | 47.37 | 53.13 | 5.76 |
| Workers in the tertiary sector | 37.80 | 41.14 | 3.34 |
| Secretaries | 36.36 | 37.50 | 1.14 |
| Intellectual workers | 41.46 | 42.22 | 0.76 |
| Construction workers | 31.15 | 31.06 | -0.08 |
| Home assistants | 77.51 | 77.40 | -0.11 |
| Catering/hotel workers | 40.15 | 39.88 | -0.26 |
| Other occupations | 53.57 | 53.16 | -0.41 |
| Skilled workers | 33.02 | 30.43 | -2.58 |
| Workers in the secondary sector | 40.00 | 35.83 | -4.17 |
| Workers in the primary sector | 44.12 | 37.50 | -6.62 |
| Baby sitters | 61.90 | 55.00 | -6.90 |
| Sales and service employees | 43.55 | 33.11 | -10.44 |
| Domestic workers (full/part time) | 65.22 | 52.56 | -12.65 |
| Commerce | 50.00 | 27.42 | -22.58 |
| Switchboard operators | 75.00 | 31.25 | -43.75 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2004-2012. The sample includes immigrants who arrived in Italy before 2007, with no more than ten years of residence in Italy by 2007, who did not hold Italian citizenship by the time of the interview. Treated: Nationals of Romania and Bulgaria. Control: Nationals of Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey. p.p.: percentage points.

Table B7. Additional robustness checks: Estimated effect of EU enlargement on the log monthly total consumption expenditure of immigrants from new EU member countries (2004-2012)

| | Arrived in Italy before 2005 | Arrived in Italy before 2004 | Equivalentized consumption modified OECD scale ^a | Equivalentized consumption ISEE scale ^b |
|-------------------------|---------------------------------|---------------------------------|--|---|
| | (1) | (2) | (3) | (4) |
| new EU x year 2005 | -0.004 (0.040) | -0.020 (0.041) | 0.014 (0.045) | 0.020 (0.045) |
| new EU x year 2006 | 0.017 (0.038) | 0.004 (0.036) | 0.007 (0.043) | 0.004 (0.045) |
| new EU x year 2007 | 0.106*** (0.033) | 0.079** (0.036) | 0.103*** (0.027) | 0.107*** (0.027) |
| new EU x year 2008 | 0.015 (0.026) | 0.002 (0.031) | -0.008 (0.053) | 0.001 (0.050) |
| new EU x year 2009 | 0.042 (0.034) | 0.033 (0.030) | 0.052 (0.036) | 0.048 (0.037) |
| new EU x year 2010 | 0.120*** (0.040) | 0.123*** (0.044) | 0.104*** (0.036) | 0.100*** (0.035) |
| new EU x year 2011 | -0.002 (0.031) | -0.022 (0.038) | 0.028 (0.023) | 0.025 (0.026) |
| new EU x year 2012 | 0.065* (0.039) | 0.055 (0.047) | 0.081** (0.032) | 0.084*** (0.031) |
| Year dummies | Yes | Yes | Yes | Yes |
| Country of origin dum. | Yes | Yes | Yes | Yes |
| Province dummies | Yes | Yes | Yes | Yes |
| Individual controls | Yes | Yes | Yes | Yes |
| Household controls | Yes | Yes | Yes | Yes |
| Labor income | Yes | Yes | Yes | Yes |
| Nobs | 4,611 | 4,166 | 5,385 | 5,385 |
| Adjusted R ² | 0.458 | 0.465 | 0.215 | 0.231 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2004-2012. * p<0.01, ** p<0.05, *** p<0.01. Notes: Sample is restricted to those who arrived in Italy before 2005 in column (1), before 2004 in column (2), and before 2007 in columns (3)-(4). Household controls exclude number of household members, number of cohabiting children and number of cohabiting non-adult children in columns (3)-(4). In columns (3)-(4) the dependent variable is log monthly equivalentized consumption expenditure calculated by using different weightings for each household member: ^a1.0 to the first adult; 0.5 to the second and each subsequent adult; 0.3 to each non-adult child (younger than 18). ^b1.0 to the first person; 0.57 to the second; 0.47 to the third, 0.42 to the fourth; 0.39 to the fifth; and 0.35 to the subsequent persons. For the remaining definitions, see notes of Table 4.

Table B8. Testing the validity of the research design: The effects of the EU enlargement on the composition of the treated and the control group

| | % female | % youth (<30 years old) | % low educated (primary or none) | Average number of household members |
|-------------------------|------------------|----------------------------|-------------------------------------|--|
| new EU x post | 0.031 (0.029) | -0.024 (0.021) | 0.039 (0.032) | 0.076 (0.092) |
| Year dummies | Yes | Yes | Yes | Yes |
| Country of origin dum. | Yes | Yes | Yes | Yes |
| Province dummies | Yes | Yes | Yes | Yes |
| Nobs | 5,385 | 5,385 | 5,385 | 5,385 |
| Adjusted R ² | 0.045 | 0.034 | 0.081 | 0.103 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2004-2012. * p<0.10, ** p<0.05, *** p<0.01.

Two-way clustered standard errors (at Italian province of residence and at country of origin level) are in parentheses (121 clusters). All specifications include a constant term, year, country of origin and Italian province of residence fixed effects. See Online Appendix A for variable definitions and sample restrictions.

Table B9. Differences in the intentions to leave Italy between immigrants from new EU and candidate countries (2010-2012)

| Linear probability model | Intention to leave Italy | Intention to leave Italy | Intention to leave Italy |
|--------------------------|--------------------------|--------------------------|--------------------------|
| | pre 2007 arrivals | pre 2006 arrivals | pre 2005 arrivals |
| | (1) | (2) | (3) |
| new EU | 0.009 (0.016) | 0.011 (0.017) | 0.010 (0.020) |
| Year dummies | Yes | Yes | Yes |
| Province dummies | Yes | Yes | Yes |
| Individual controls | Yes | Yes | Yes |
| Household controls | Yes | Yes | Yes |
| Nobs | 1,246 | 1,123 | 941 |
| Adjusted R ² | 0.040 | 0.046 | 0.053 |

Data source: Institute for Multiethnic Studies (ISMU) surveys 2010-2012. * p<0.10, ** p<0.05, *** p<0.01.

Two-way clustered standard errors (at Italian province of residence and at country of origin level) are in parentheses (121 clusters). All specifications include year and Italian province of residence fixed effects, and a constant term. Individual controls include respondent's gender, age, age squared, dummies for education level (none, primary, secondary, tertiary), and years of residence in Italy. Household controls include an indicator for having a spouse living abroad, number of household members, number of children, number of cohabiting children, and number of cohabiting non adult children. See Online Appendix A for variable definitions and sample restrictions.

Table B10. Using selection on observables to assess the bias from unobservables

| Restricted model | | Full model | Total consumption |
|------------------|----|------------------|-------------------|
| Table 4 Column 1 | vs | Table 4 Column 4 | 7.13 |
| Table 4 Column 2 | vs | Table 4 Column 4 | 3.19 |
| Table 4 Column 3 | vs | Table 4 Column 4 | 3.72 |

Notes: Each cell of the table reports the ratio based on the coefficient estimate of the interaction between new EU and year 2007 from the corresponding restricted model (estimate of γ_0^R in equation (3), $\hat{\gamma}_0^R$) and the full model (estimate of γ_0^F in equation 2, $\hat{\gamma}_0^F$). The reported ratio is calculated as: $\hat{\gamma}_0^F / (\hat{\gamma}_0^R - \hat{\gamma}_0^F)$. See Table 4 for the description of the full set of controls included in each specification.

Table B11. Fraction of treatment and control groups with mortgage issued before and after the EU enlargement

| | Treated | Control |
|------------------------------------|---------|---------|
| % with a mortgage | 5.06 | 4.95 |
| % with a mortgage by year of issue | | |
| 2006 | 1.41 | 1.93 |
| 2007-2008 | 3.65 | 3.02 |
| Total number of observations | 830 | 469 |

Data source: Survey on Income and Life Conditions of Households with Foreigners 2009. The table presents weighted results (using EU-SILC Personal cross-sectional weights). The sample is restricted to household heads and includes immigrants from Romania and Bulgaria (treated) and from Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, and Turkey (control) who arrived in Italy before 2007, who do not hold Italian citizenship by the time of the interview and with no more than ten years of residence in Italy by the time of the EU accession.



Figure B1. Timeline of events



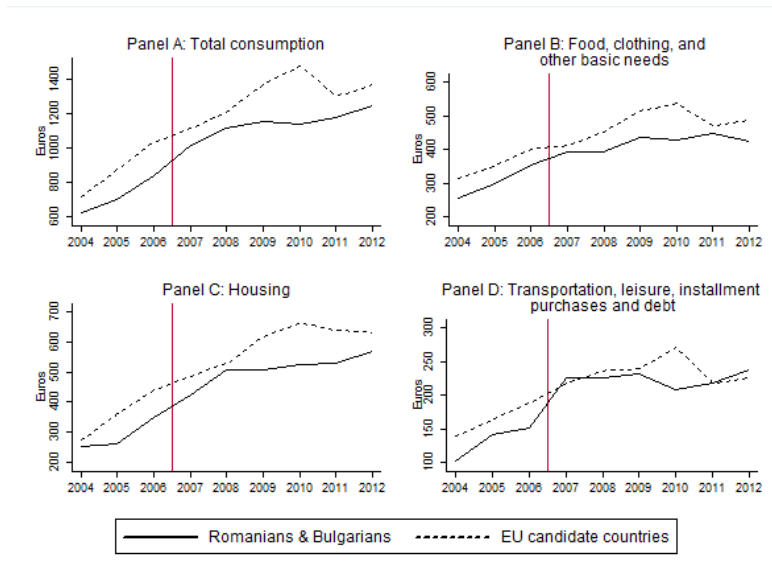
a. Lombardy in Italy/Europe



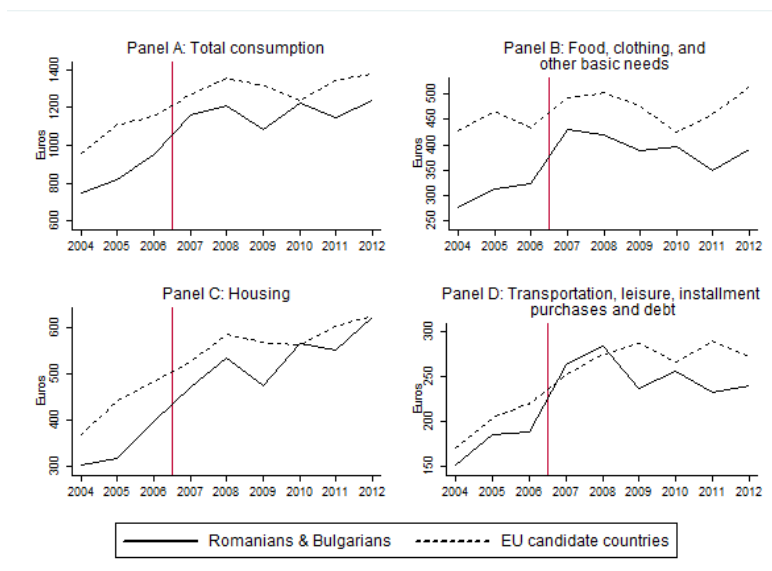
b. Provinces of Lombardy

Figure B2. Lombardy region of Italy

Source: IRer (2010), The region of Lombardy, Italy: Self-Evaluation Report, OECD Reviews of Higher Education in Regional and City Development, IMHE.



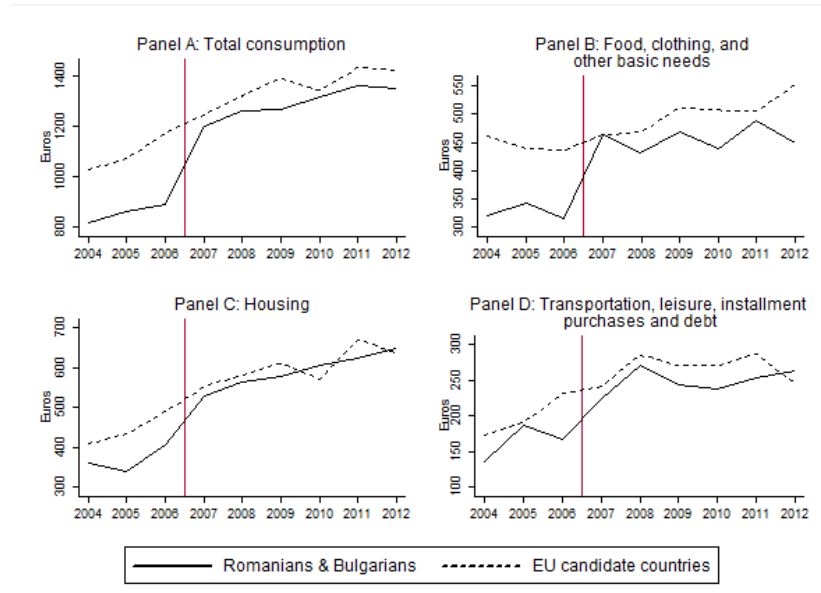
a. Provinces where the treatment and the control groups were of similar size before 2007



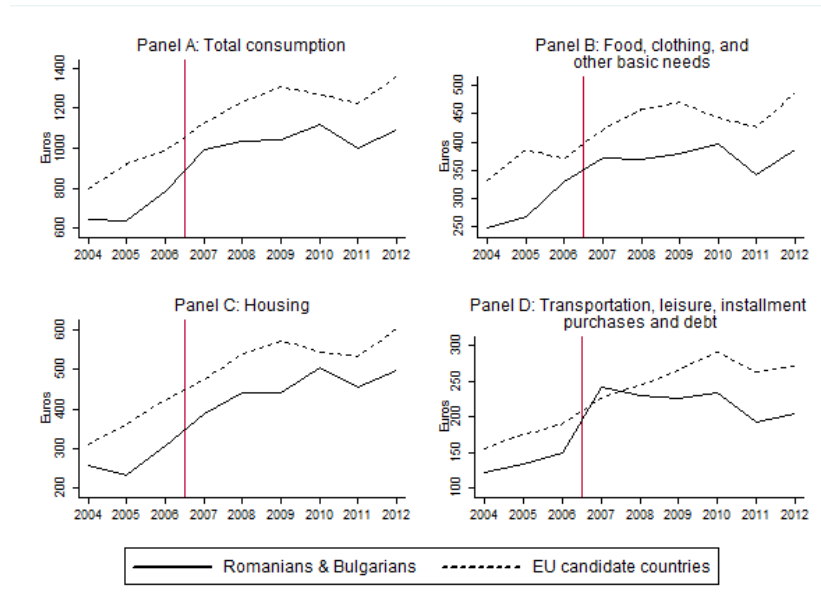
b. Provinces where the treatment group was the minority before 2007

Figure B3. Immigrants from new EU member and candidate member countries residing in Italy, average monthly consumption expenditure by Italian province of residence

Data source: Institute for Multiethnic Studies (ISMU) 2004-2012 surveys. Provinces included in panel a are Province of Cremona, Province of Pavia, and Metropolitan City of Milan. Provinces included in panel b are Province of Varese, Province of Brescia, Province of Lecco, Province of Como, and Province of Bergamo. The red vertical line represents the date of the EU accession of Romania and Bulgaria (1 January 2007). See Online Appendix A for the full set of sample restrictions and variable definitions.



a. Occupations that experienced an increase in the fraction of treated after 2007



b. Occupations that did not experience an increase in the fraction of treated after 2007

Figure B4. Immigrants from new EU member and candidate member countries residing in Italy, average monthly consumption expenditure by occupation

Data source: Institute for Multiethnic Studies (ISMU) 2004-2012 surveys. The red vertical line represents the date of the EU accession of Romania and Bulgaria (1 January 2007). See Online Appendix A for the full set of sample restrictions, variable definitions, and Appendix Table B6. for grouping of occupations.