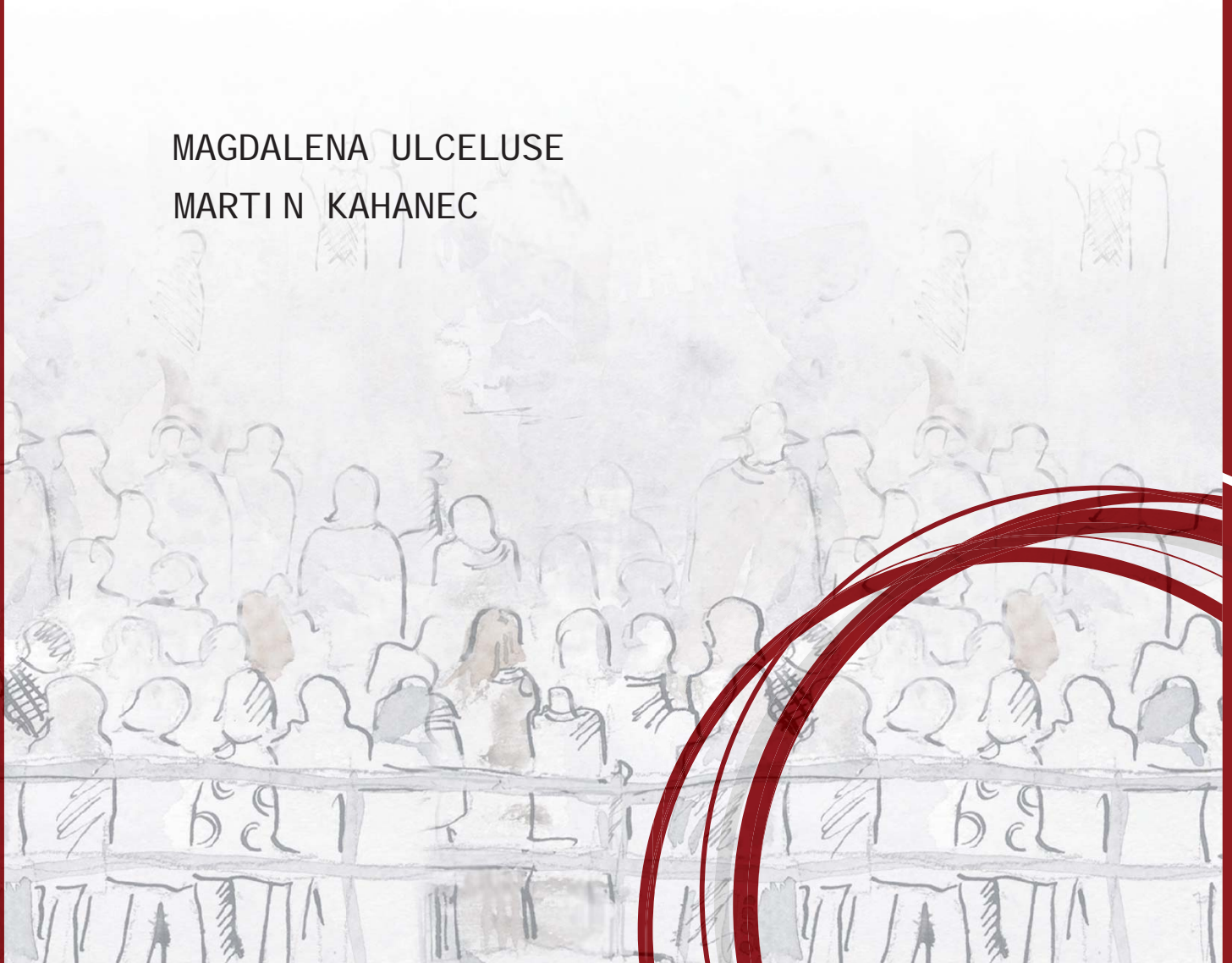CELSI Discussion Paper No. 47

SELF-EMPLOYMENT EFFECTS OF RESTRICTIVE IMMIGRATION POLICIES: THE CASE OF TRANSITIONAL ARRANGEMENTS IN THE EU

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ABSTRACT

Self-employment Effects of Restrictive Immigration Policies: The Case of Transitional Arrangements in the Eu

The paper contributes to existing debates concerning the effectiveness of immigration policies, by investigating the particular case of transitional arrangements implemented during the European Union enlargement rounds of 2004 and 2007. A number of authors have argued that instead of deterring immigration, the arrangements have changed the channels EU8 and EU2 migrants have chosen to enter the country of destination, by becoming self-employed. Self-employed individuals were not subjected to restrictions. Our results suggest that EU2 migrants have indeed turned to self-employment as a way to circumvent the restrictions, and point to a substitution effect in the case of EU8 migrants. The results have broader research and policy implications, revealing the importance of considering the effect immigration policies have in shaping the volume and skill composition of migrants, as well as their labour market trajectories and subsequent economic activities.

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1. INTRODUCTION

The paper intends to contribute to existing debates concerning the effectiveness of immigration policies, by investigating the particular case of the transitional arrangements implemented during the European Union enlargement rounds of 2004 and 2007.

Immigration seems to be a central issue in the contemporary media, policy and political debates. Although many studies have found repeatedly that it produces economic benefits for both the sending and receiving countries, oftentimes greater than those resulting from liberalizing trade (see Rodrik 2002), it seems increasingly difficult to strike a balance between these gains, the escalating nationalistic views of parts of the electorate and the security concerns it raises. Recent developments, including the successive European Union enlargements and what has been labelled the 'European migration crisis', have sparked vehement calls for more restrictive immigration policies all across Europe. As a consequence, European Union (henceforth EU) member states, which have become increasingly open to the free movement of goods, capital and services, have become more reluctant when it comes to the free movement of people, for the regulation and control of which they now commit significant resources and efforts[1] (Geddes and Scholten 2016).

However, even the most restrictive policies include loopholes that allow migrants to enter the country and supply the much needed demand for labour in developed countries (see Mayda 2010, Freeman 1995, 2002). The paper investigates precisely one such loophole, namely, the self-employment channel available during the 2004 and 2007 EU enlargement rounds, when a series of labour market measures (transitional arrangements) were implemented to prevent a potentially non-manageable flow of EU8 (Czech Republic, Estonia, Hungary, Latvia, Lithuania,

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[1] With third country nationals.

Poland, Slovakia, Slovenia) and EU2 (Romania and Bulgaria) migrants. A number of authors have argued that instead of deterring immigration, the arrangements have rather altered the channels EU8 and EU2 migrants have entered the country. Namely, because self-employed individuals were not subjected to the labour market restrictions the transitional arrangements entailed, EU8 and EU2 migrants have used self-employment as a mean to circumvent them. Our results suggest that EU2 migrants have indeed turned to self-employment as a way to avoid restrictions, and point to a substitution effect in the case of EU8 migrants. In the latter case, transitional arrangements seem to have diverted flows from the traditional immigration countries like Germany of Austria, to the United Kingdom or Ireland, which did not implement restrictions.

The paper makes a number of significant contributions to the existing literature on the effect of immigration policies. To begin with, it is the first to systematically investigate the effect that transitional arrangements have had on migrant's self-employment rates, and in conducting a comparative analysis across the EU15 member states. By extending the focus of the analysis to a multitude of origins and destinations we can test the robustness and broader validity of the results found. The European Union offers a rare opportunity to study the effect of policies and policy changes over time and across countries in a longitudinal approach which is hardly possible in other contexts. Secondly, the paper exploits a unique policy change that affects a group of migrants (EU citizens) in a similar way, shifting their regulation away from national rules to free movement, which was implemented across a set of EU member states similarly but at different points in time (sometimes even gradually). Third, our findings make a meaningful empirical contribution to the current debates on the effectiveness of immigration policies in curbing immigration. Moreover, we add great value to the current literature by investigating a

case in which, while there is free mobility between sending and receiving countries, there is variation in terms of access to the labour market. This case allows for a more nuanced view on the effect and effectiveness of immigration policies and enables inferences about other pull factors (for instance, the overall attractiveness of the receiving country, labour demand, or cultural differences). Fourth, our results have broader research and policy implications, revealing the importance of considering the effect immigration policies have in shaping the volume and skill composition of migrants, as well as their labour market trajectories and subsequent economic activities.

The further structure of the paper is as follows. Section II provides a review of the literature on the effect of restrictive immigration policies, while section III zooms in on the effect of the transitional arrangements implemented during the EU enlargement rounds in 2004 and 2007. Sections IV presents the data and methodology, while section V examines the results. Section VI discusses the theoretical and policy implications of our findings.

2. THE EFFECT OF RESTRCTIVE IMMIGRATION POLICIES

Immigration policies regulate the conditions under which migrants enter a country and the degree of access to key social institutions, such as the labour market and the welfare state (Geddes and Scholten 2016). They are usually implemented as a way to influence the behaviour of a target population, for instance, highly skilled migrants, in an intended direction (Czaika and de Haas 2013).

Recent developments, including the successive EU enlargements and what has been labelled the 'European migration crisis', have sparked vehement calls for more restrictive immigration policies. What seems like a novel trend is, however, a perpetuation of a longstanding process of

tightening immigration policies, dating at least to the interwar period when first the USA and later Australia, implemented restrictive measures in the form of quotas and eligibility criteria (for an overview, see Hatton 2010). In Europe, countries have declared their intention to regulate labour immigration more strictly since at least the 1970s, although they have continued to accept migrants to various degrees (Geddes and Scholten 2016).

The effects of immigration policies, as well as their objectives and criteria of success, have been however greatly questioned in recent times (see Czaika and de Haas 2013; Czaika and Hobolth 2016). There are two sides to this debate. A number of authors have argued that immigration policies have been mostly effective and that it has become more difficult for individuals to enter host countries due to restrictive visa policies and sophisticated border control systems (Carling 2002; Bonjour 2011; Geddes and Scholten 2016). Strikwerda (1999), for instance, suggests that the major decline in immigration flows to the US after the implementation of the language test in 1917 and the quota system in 1921, points to the decisive power of the state to control migration and, by extension, the direction of economic development itself.

Other authors disagree and insist that we are experiencing a control crisis and people circumvent restrictions and migrate through irregular means (Bhagwati 2003; Castles 2004). Hollifield et al (2014), for instance, argue that the gap between the objectives and the outcomes of immigration policies is becoming increasingly wider in many receiving countries, which provokes greater public hostility towards immigrants and puts pressure on political parties and policy-makers to adopt even more restrictive policies. The question seems to remain, thus: do restrictive immigration policies actually deter migrants from entering a country?

A small, but rapidly growing empirical literature seems to suggest they do, at least to some extent. Ortega and Peri 2013 find that when a typical immigrant destination, such as the USA,

Canada, or Australia, tightens its entry laws immigration flows decline in the first year after implementation. More specifically, the introduction of measures that restrict the entry of immigrants to these countries reduces immigration by about 6 percent within the same year. Similarly, Czaika and de Haas (2016) find that visa policies significantly decrease immigration, although the net effect is undermined by the decline in outflows of the same migrant group. They also find that inflows decline incrementally after the introduction of restrictions, but increase almost immediately after the restrictions are removed. They conclude that restrictions tend to decrease circulation and encourage long-term settlement, which in turn reduces the responsiveness of migration to economic fluctuations. Hatton (2005), Mayda (2010) and Beine et al (2011) too, find that immigration policies affect the magnitude of immigrant flows.

Restrictions, however, do not stop immigration altogether, and they tend to affect more the quality rather than the quantity of immigration. That is, they do not necessarily reduce the number of immigrants entering the country, but instead affect the channels people choose to enter, and the types of migrants a country receives[2] (Czaika and de Haas 2013).

Immigration policies in the majority of EU member states are rather restrictive, which would mean that immigration flows should be severely reduced. Nevertheless, restrictive immigration policies are often characterized by loopholes that leave enough room for potential migrants to take advantage of the existing economic incentives (Mayda 2010). One such loophole was to be found in the case of the transitional arrangements implemented by the incumbent member states during the EU enlargement rounds in 2004 and 2007, investigated in this paper. The following section reviews in more detail the transitional arrangements and the literature investigating their effects.

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[2] Restrictions raise the costs associated with migrating, thus the returns from migration must now be high enough to make up for the risks and costs that it incurs.

3. TRANSITIONAL ARRANGEMENTS – AN OVERVIEW

Transitional arrangements are a series of labour market measures the incumbent EU member states have implemented in order to prevent a potentially non-manageable inflow of immigrants from the EU-8 and EU-2 accession countries. The restrictions themselves were not new – a series of coordinated restrictions have also been implemented when Greece, Spain and Italy adhered; the difference this time was that the new member states were jointly relatively populous and significantly diverged in terms of economic development and wage earnings from the incumbent member states, which constituted a powerful, if only potential, pull factor. Moreover, this time around, the decision on the implementation and the type of restrictions was left up to the national Governments to decide, with a 2+3+2 rule. The rule meant that Member States could impose such a transitional period for 2 years, then decide to extend it for an additional 3 years, and only if there was serious proof that labour from new member states was disruptive to the market in the old member states, the period could be extended for the last 2 more years (European Commission, 2006). In what is by now history, all member states with the exception of Sweden, Ireland and the United Kingdom have decided to implement the restrictions for up to seven years for the first enlargement round, and with the exception of Sweden and Finland all member states have applied them for the second enlargement round. Table 1 below presents the year of when transitional arrangements were lifted by the EU-15 Member States for the two country groups.

[TABLE 1 ABOUT HERE]

This incongruity was not without consequences in terms of both the scale and the composition of migration flows to the EU-15, from the EU-8 and EU-2 groups respectively. Namely, transitional arrangements have not as much as stopped migration, but have rather diverted flows away from regular countries of migration which have now applied restrictions (e.g. Germany, Austria) to countries which have decided to open their labour markets (e.g. Ireland, United Kingdom) (Boeri and Brücker 2005; Barrell et al 2007; Kahanec et al 2009). In a more recent study, Kahanec et al (2016) find that, nevertheless, east-west migration flows in the EU responded positively to the EU enlargement, which afforded employment and residential rights similar to those of the native population and the economic opportunities in receiving labour markets[3].

Indeed, in Germany, the net inflow post enlargement was 2.5 times larger than in the four previous years (Brenke et al 2010), while in Spain, the percentage of EU-12 (EU2 and EU10 countries) immigrants increased from 10 per cent in 2004 to almost 20 per cent in 2008 of the total immigrant population (de la Rica 2010). The data for the United Kingdom (one of the countries that did not apply restriction for the EU-8 countries) shows that the stock of EU-8 immigrants has registered a significant growth, from around 50 000 in 2003 (including EU-2 immigrants too), to 704 000 in 2008, while the stock for EU-2 migrants has grown from 34 000 in 2006, to 67 000 in 2008 (United Kingdom Migration Advisory Committee 2008). Sweden, the only country that opened its markets for both enlargement rounds registered only a slight increase in immigration from the accession countries, underscoring the fact that labour demand is also needed to attract immigrants, and that geographical distance and language skills can act as barriers (Galgóczi, Leschke, and Watt 2011). Another factor limiting immigration to Sweden

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[3] They do find, however, that the potential through which migration helped to ease the imbalances across EU labour markets was hampered by transitional arrangements, which negatively affected the magnitude of east-west flows.

may have been strict labour market regulation and strong trade unions (Kahancova and Szabo 2015).

The transitional arrangements also affected the composition of post-enlargement migration. In the United Kingdom, the proportion of EU2 and EU8 migrants with low education was smaller after enlargement, while of those with higher education was larger (Kahanec et al 2010). Moreover, EU2 and EU8 immigrants in both the United Kingdom and Ireland seemed to exhibit, on average, higher educational levels than other immigrant groups, although they were found to earn less than these groups (Barrett 2010; Holland et al. 2011). Conversely, in Germany, the share of EU8 post-enlargement migrants with low education was substantially larger than the share of pre-enlargement migrants with low skills suggesting a negative selection of migrants (Kahanec et al 2010). Similarly, Elsner and Zimmermann (2013) found that the educational levels of the post-accession arrivals were higher than those of comparable natives, but lower than those of pre-accession cohorts, prompting the authors to conclude that Germany would have been better off without the introduction of restrictions, as it would have received younger and more highly educated individuals, like Ireland and the United Kingdom did.

In terms of labour market outcomes, although on average highly educated, the post enlargement migrants tended to be employed in lower skilled jobs and had higher employment rates than other immigrant groups or natives (Drinkwater et al 2006). In the United Kingdom, both EU2 and EU8 migrants were more likely to be in employment than migrants from other countries and the native population (Holland et al. 2011). In Italy, around one third of EU2 migrants were employed in craft and elementary occupations, while the construction sector employed the largest share of EU2 migrants, followed by manufacturing and the household sectors (idem).

There are no empirical studies to date investigating the effect of the transitional arrangements on migrants' propensity to become self-employed, yet there are a number of studies observing increased self-employment rates for EU2 and EU8 migrants, post enlargement. For example, in the United Kingdom, which more or less opened their labour market, EU10 (Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia) migrants had a particularly high probability of becoming self-employed (Blanchflower and Lawton 2010). In Germany, too, post enlargement immigrants were up to five times more likely to be self-employed than previous cohorts (Elsner and Zimmermann 2013), while in Austria, the number of self-employed Poles increased four times, and doubled for the EU-8 population as a whole, between 2003 and 2005 (Barrell, FitzGerald, and Riley 2007). Section 4 explores the post enlargement patterns of self-employment for the two immigrant groups and presents the methodology employed for the empirical analysis.

3.1 Immigration policies and self-employment

The literature exploring the effects of immigration policies more generally on migrant self-employment is relatively scarce. Hunt (2010) explores the entrepreneurial propensities of immigrants compared to the native population in the US, looking at the different entry visas. She finds that migrants entering under temporary work visas or as student/trainees perform significantly better that native college graduates in terms of wages, patenting and authoring books or papers. They also have a higher likelihood than natives to start-up companies. At the other end of the spectrum, immigrant arriving under the family reunification visas perform similarly to natives.

Mahuteau et al. (2014) look at the effect of a change in Australia's immigration policy on immigrant's propensity to become entrepreneurs. They find that the policy change has resulted in a 2 to 4 per cent increase in the probability of attracting an immigrant who was already an entrepreneur in the origin country. Immigrants arriving under skilled independent visa have a 10 per cent higher probability to become an entrepreneur in Australia, while the likelihood increases to 18 percent for those entering under the business visa. Perhaps not surprisingly, immigrants entering under the family visa have only a 3 percent probability of becoming an entrepreneur. Constant and Zimmermann (2005) investigate the role of the legal status at entry, whether work permit, refugee, or kinship, in a comparative study between Germany and Denmark, and the effect it has on work participation and earnings. They find that, even after controlling for skill level, non-economic migrants tend to be less active in the labour market and present lower earnings.

4. DATA AND METHODOLOGY

The self-employment rates for the EU2 and EU8 migrants in the EU15 countries are computed using the European Union's Labour Force Survey data for the period 2004-2015, for which disaggregation between the two migrant groups is possible.

Table 2 presents the evolution of self-employment rates by country group, before and after enlargement. It presents a more nuanced view for the EU2 migrants group, where we can compute the average self-employment rate before enlargement, in 2007 - the year of the enlargement, between 2008 and the end of the transitional arrangements period (which varies by country) and for the period post-transitional arrangements. We cannot accomplish the exact same exercise for EU8 migrants, since our data is available from 2004 onwards only, the year of enlargement for this group.

With the exception of Italy, all countries register an increase, of various magnitudes, in self-employment rates among the EU2 migrant group in 2007, immediately after enlargement. An explanation for Italy's case might be the fact that a work permit was not needed in particular sectors such as agriculture, construction, domestic work and care services, where most of the EU2 immigrants, particularly Romanians were to be found disproportionately. Nevertheless, an interesting picture appears when looking at absolute numbers in this case too: the number of self-employed EU2 migrants in the sample increases from 195 individuals in 2006 to 277 in 2007, to 339 in 2008, accompanied by a corresponding increase in the total number of EU2 migrants in the sample, from 1477 in 2006 to 3285 in 2008.

In a number of countries, the self-employment rates continue to register an upward trend up to the end of the restriction measures, while, where there is a slight decrease the levels are still generally above the pre-enlargement levels. Looking at the post transitional arrangements period, most of the countries register a decline in self-employment rates, sometimes with a rather spectacular magnitude: from 45 to 31 percent in the United Kingdom, from 15 to 10 percent in Germany, or from 22 to 18 percent in the Netherlands (figure 1).

Turning to the evolution of self-employment rates for the EU8 group, a pattern is less clear. While some countries experience substantial declines in self-employment rates post transitional arrangements (e.g. Austria, Germany, Italy), the post-TA rates are still higher than the pre-TA rates (table 2). Countries such as the United Kingdom, Ireland, which did not implement transitional arrangements for the EU8 migrant group, but also Portugal, Greece,

Netherlands or Spain, seem to exhibit higher self-employment rates for this particular group after the end of the transitional arrangements, around years 2008-2009 (figure 1). A potential explanation might be the onset of the Great Recession – the recession reduces demand for wage workers, which, if salaries are rigid, forces workers to enter self-employment (Cho and Newhouse 2013; Koellinger and Thurik 2012; Finkelstein Shapiro 2014). This might be particularly true for migrant workers, who might need to stay in self-employment if there are no alternative employment opportunities available, if they are to remain in the country (Millán et al 2012).

[FIGURE 2 ABOUT HERE]

The hypothesis that both EU2 and EU8 immigrant groups circumvented transitional arrangements by claiming self-employment – since the self-employed were not subjected to restrictions - seems highly plausible and the data exhibited above and in other sources seems to support it. Yet, to the authors' knowledge, no systematic study has been undertaken to prove its validity. The study intends to fill this gap in the literature, but also draw broader conclusions about the effectiveness of restrictive immigration policies in deterring immigration.

One of the advantages of the study is given by the fact that the effects of the policy changes are immediate, as shown by Table 2 and Figures 1-2. This makes the study less likely to miss out on long term effects which cannot be usually assessed because of the relatively short periods between policy changes. Moreover, because of the cross-country comparison, we are able to explore substitution effects, for instance, EU8 migrants moving to United Kingdom instead of Germany, where transitional arrangements were in place.

4.1 Descriptive statistics

Figures 3 to 5 examine changes in pre- and post-enlargement cohort characteristics for the self-employed individuals in the EU2 migrant group, in terms of age, gender and educational level. Again, the same exercise is not possible for the EU8 group, because we do not have information on self-employment before the enlargement in 2004.

Figure 3 presents changes in the age structure of self-employed EU2 migrants before and after enlargement. The average age for this group seems to be increasing from one cohort to the other. While before enlargement self-employed individuals were preponderantly in the 30-34 years old segment, after enlargement, we notice a significant increase in the 35-44 years age segments, coupled with a decrease in the self-employment for the 30-34 cohort. The post-enlargement trend seems to be much more in alignment with the existing literature which has found an inverse U-shaped relationship between age and self-employment (Bönte, Falck, and Heblich 2009). The increase in age is all the more interesting in light of previous studies which have found that post enlargement EU2 migrants were predominantly young[4] (Holland et al. 2011).

[FIGURE 3 ABOUT HERE]

If we turn to gender disaggregation (figure 4), we notice that men have generally a greater likelihood of becoming self-employed than women, but the gender gap widens significantly after the enlargement; more than 60 percent of the EU2 migrants self-employed in 2007 are men.

[FIGURE 4 ABOUT HERE]

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[4] About 60 per cent of the migrating population was below 35 years old.

With regards to differences in terms of educational achievements (figure 5), there are some differences across educational levels. While the self-employment rate of individuals with an upper secondary education seems to be changing only marginally from one period to the other, there is a significant decrease in self-employment rates among tertiary educated individuals, coupled with a corresponding increase of self-employment among lower secondary educated individuals. This trend could be a positive indication of a switch to a necessity type of self-employment, as, usually, the number of years of education is positively associated with the probability of becoming an entrepreneur, or starting an opportunity-based business (Robinson and Sexton 1994).

[FIGURE 5 ABOUT HERE]

4.2 Empirical model

To disentangle the effects of various factors on EU8 and EU2 migrants' propensity to become self-employed, and the role of transitional arrangements in particular, we estimate the following model:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_1 Z_{it} + \varepsilon_{it}$$

where Y_{it} is the dependent variable, either self-employment rates for EU2 or self-employment rates for EU8 migrants, X represents the independent variable transitional arrangements, a dummy variable equal to 0 if no arrangements were in place and 1 if there were, β its slope, t refers to the time units, i to the cross-national units, while ε is the error term. Z represents a

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vector of control variables which have been found to be linked to self-employment in the existing literature. We include an enlargement dummy, equal to 1 if the year is bigger than 2004 or 2007, to control for the effect of free mobility. Unemployment is a determinant of self-employment, with the direction of the effect depending on context and circumstances. High unemployment can lead to more self-employment as the opportunity cost of starting a business decreases, however, it also entails fewer resources available, which in turn could undermine the creation of new businesses (see for example Blau 1987; Blanchflower and Meyer 1994; Audretsch et al. 2002); and for an extensive review Thurik et al. 2008). The level of per capita GDP, a proxy for economic development, can be negatively associated with self-employment if it is associated with greater capital per worker, but it can be positively associated too, when is the results of increased economic growth and demand for goods and services, encouraging business creation (Parker and Robson 2004). Further, an increase in the level of GDP per capita should be associated with a decrease in self-employment, as the returns from waged employment relative to self-employment are now higher (Lucas 1978).

GDP growth, a proxy for economic growth and level of entrepreneurial opportunities, should be positively associated with self-employment rates. A higher share of the services sector in the GDP should be conducive to or associated with more self-employment in the economy. We also include as a control variable the self-employment rate of the native population, which stands in for other unobserved characteristics of the business environment, including opportunities and barriers. Short term interest rates are used as a proxy for the costs associated with setting up a new business. In the absence of sufficient personal resources to finance a new business without borrowing, one of the most formidable entry barriers to self-employment is the cost of borrowing (Parker 1996). We would expect thus a higher interest rate to be negatively associated with the

level of self-employment. Robson (2003) finds that the female labour force participation rate is positively associated with self-employment rates.

The analysis employs a regression with fixed effects, which enable us to control for the effect of time-invariant characteristics so we can assess the net effect of our predictors. A Hausman (1978) specification test decisively confirm this is the right choice. Given that a lot of the time variation is captured by the transitional arrangements variable and the fact that we do not immediately see variation in self-employment rates that could be explained by overall time trends, we decide against using time fixed effects. We also test this option empirically[5], and the results confirm our choice.

5. RESULTS AND DISCUSSION

Tables 3 and 4 presents the correlation matrices between EU2 and EU8 self-employment rates and the control variables employed in the empirical analysis. EU8 self-employment rates are most notably correlated with the self-employment rate of natives, and the level of GDP per capita, although the effects go in the opposite directions. EU2 self-employment rates in turn, are most notably correlated with transitional arrangements and services as a percentage of GDP. The variables do not display signs of collinearity[6], thus using all the controls identified above at the same time should not constitute an issue.

[TABLE 3 ABOUT HERE]

[TABLE 4 ABOUT HERE]

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[5] We use the stata command testparm.

[6] We test for both collinearity and multicollinearity and find no presence. We also regress the explanatory variables on one another, and obtain mostly R^2 values lower than 0.2. The highest value obtained (0.27) is when we regress transitional arrangements on all other explanatory variables. The coefficients in this regression suggest that transitional arrangements are most closely associated with the level of per capita GDP.

Turning to our empirical analysis, column 1 of table 5 presents the results of a parsimonious model that explores only the effect of the transitional arrangements on EU2 migrants' self-employment rates, while column 2 includes our control variables and an enlargement dummy proxying the effect of the opening of the borders. The effect of transitional arrangements is highly significant and positive across the two models[7]. It seems, thus, that Romanians and Bulgarians have indeed turned to self-employment as a mean to circumvent the restrictive labour market measures implemented by the incumbent member states. Surprisingly, with the exception of the female labour force participation rate, none of the other variables seem to have an effect, although they mostly register the sign predicted by the existing literature on self-employment.

[TABLE 5 ABOUT HERE]

Turning to the determinants of self-employment among the EU8 migrant group (table 6), the first thing to observe is that transitional arrangements do not seem to have had an impact. As hypothesised in section 3, because there were countries like the UK or Ireland which did not implement restrictions, EU8 migrants had alternative options to the now relatively closed Germany, Austria or the Netherlands, and did not need to turn to self-employment as a way to evade barriers. In this case, two other factors seem to have mattered instead for their propensity to become self-employed, namely, GDP per capita, which affected this propensity negatively, and the level of interest rates, which surprisingly have a positive effect.

[TABLE 6 ABOUT HERE]

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[7] A qualitatively similar result is obtained when using a random effects specification, however, the results of the Hausman test indicate that fixed effects is the specification to use.

The period we analyse, 2004-2015, covers the Great Recession which has affected severely some of the countries we investigate (e.g. Greece, Spain, Ireland). Self-employment could have been a way for both groups to navigate the recession and still be able to remain in the country. As figures 1 and 2 showed, some countries experienced higher self-employment rates during this period, particularly for the EU8 migrant group, despite the lifting of the restrictions in this case. To test the effect of the recession, we employ a dummy variable equal to 1 for the years the country has experienced negative real GDP growth (column 3). The Great Recession does not seem to have had a significant effect on self-employment propensities for neither of the two migrant groups. What is more, when we control for its effect, our results do not change significantly; for EU2 migrants, transitional arrangements and the share of women in the labour force still matter the most, while for the EU8 group, variation in self-employment is explained mainly by GDP growth and interest rates.

6. CONCLUSION

We live in complex times, when there is much fear about migration and demographic change, accompanied by rising inequality, shrinking welfare state and increased job instability (Peggy Levitt, 2017), leading to increased feelings of xenophobia and nationalism, and a great chasm between "us" and "them". These feelings have in turn translated into demands to policy-makers and politicians to manage and restrict migration, which has resulted in increasingly restrictive immigration policies. Do restrictions, however, actually limit immigration? It has been argued elsewhere (Mayda 2010) that even the most restrictive policies include loopholes that allow migrants to enter the country and supply the much needed demand for labour in developed countries. This paper investigates precisely one such loophole, namely, the self-employment channel available during the 2004 and 2007 EU enlargement rounds, when a series of labour

market measures (transitional arrangements) were implemented to prevent a potentially non-manageable flow of E8 and EU2 migrants. Much of the literature has argued that these two migrant groups have turned to self-employment as a way to circumvent these restrictions. Our results suggest that this might indeed have been the case for the EU2 migrant group, which registers a significant increase in self-employment rates post enlargement, yet it is not applicable to the EU8 migrant group.

Our findings have broader research and policy implications. Firstly, they add value to existing debates concerning the effectiveness of immigration policies. By taking advantage of the self-employment loophole, EU2 migrants have managed to circumvent the transitional arrangements and thus undermine their role in restricting immigration. The two post-enlargement effects also allow for a more nuanced view on immigration: in the context of free mobility and similar labour market restrictions, EU2 migrants overwhelmingly migrated to Spain or Italy, countries with similar cultural affinities, while both EU8and EU2 migrants greatly overlooked Sweden, which did not implement restrictions in neither rounds. This points to the existence of other factors driving immigration (language similarity, labour demand, geographical position) which interact with the absence/presence of restrictions and influence migration decisions.

Secondly, the results contribute to our better understanding of the effect of restrictive immigration policies, revealing the importance of considering the effect they have in shaping the volume and skill composition of migrants, as well as their labour market trajectories and subsequent economic activities. Our findings seem to point that restrictions do not necessarily stop immigration, but rather affect the channels people choose to enter, as Czaika and de Haas (2013) have previously asserted. Immigration is driven by strong social and economic forces that are bound to compete with migration regulations (Palmer and Pytliková 2015). Indeed, when

there are strong pull and push factors in place – as were the significant wage gaps in this case – restrictions do little to stop immigration.

Thirdly, we point to the importance of synchronization and alignment in applying restrictions, as we have seen, in the case of EU8 migrants, the fact that the UK and Ireland did not implement restrictions meant that flows were diverted away from traditional immigration countries towards them instead. It becomes critical, thus, for policy makers to look beyond their own borders when implementing immigration policies (Palmer and Pytliková 2015) and to anticipate how other countries' policies will interact with their own and affect immigration decisions.

Fourth, the study sheds light on the role of the state in shaping the quantity and quality of immigration flows, an aspect which has been rather overlooked by the existing theories and research into the determinants of migration (Palmer and Pytliková 2015). As tables 3-5 show, there were significant differences in terms of gender, age and education distribution between the pre- and post-enlargement EU2 cohorts.

Lastly, the findings contribute to the existing literature on immigrant self-employment, which has preponderantly focused on personal characteristics of migrants and available networks as determinants of self-employment, and less so on institutional and policy related factors. We show that immigration policies, as the gatekeepers setting the conditions of entry and stay, can be an important determinant of migrant self-employment. However, this type of, rather, "necessity" self-employment, would arguably contribute less to the overall economy and create far less jobs that policy-makers expect. Furthermore, necessity self-employment is often associated with subsistence living and health issues for migrants themselves. This should

constitute some food for thought for most developed countries, which see self-employment as a silver bullet to all-around socio-economic gains.

It is critical to acknowledge that any type of analysis, particularly when it involves migration, is bound to face methodological limitations. All evidence found on the effects of immigration policies is bound to be dependent on the context and the time of the analysis, and our study is no exception. The transitional arrangements are a very specific case of restrictive immigration policies, and the results might not translate beyond the borders of the European Union. Nevertheless, this case offers a rare opportunity to study the effect of policies and policy changes over time and across countries in a longitudinal approach which is hardly possible in other contexts.

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Table 1. Transitional arrangements in place by country, for each enlargement round

Country	End of transitional arrangements	
	EU-8	EU-2
Austria	2011	2014
Belgium	2009	2014
Denmark	2009	2009
Finland	2006	2007
France	2008	2014
Greece	2006	2009
Germany	2011	2014
Ireland	2004	2014
Italy	2006	2012
Luxembourg	2007	2014
Netherlands	2007	2014
Portugal	2006	2009
Spain	2006	2009/2011*
Sweden	2004	2007
United Kingdom	2004	2014

* Spain lifted restrictions for Romania and Bulgaria in 2009, but reintroduced them briefly for Romania in 2011

Table 2. Evolution of self-employment rates for the EU-2 and EU-8 immigrant groups

Country	EU-2				EU-8		
	2004-2006	2007	2008-end of TA	Post-TA	2004	2005-end of TA	Post TA
Austria	6.2	7.2	10.1	8.4	13.4	14.1	13.2
Belgium	21.3	35.3	32.4	31.6	4.5	24.7	17.1
Denmark	15.0	-	5.8	5.4	11.1	9.2	8.4
Spain	2.5	6.5	8.2	6.8	6.9	6.4	9.0
Finland	n/a	n/a	n/a	n/a	7.1	6.8	10.3
France	8.7	9.5	15.3	15.7	3.5	10.9	10.3
Germany	-	-	15.2	9.7	-	19.2	18.6
Greece	6.7	8.0	5.5	5.9	11.9	12.2	13.8
Ireland	8.7	9.4	8.5	8.4	n/a	n/a	n/a
Italy	13.5	12.7	10.2	9.2	-	19.8	13.0
Netherlands	4.7	13.9	22.3	17.9	6.4	13.0	14.6
Portugal	6.1	6.2	4.1	7.6	-	-	30.2
Sweden	n/a	n/a	n/a	n/a	n/a	n/a	n/a
United Kingdom	39.6	42.6	44.6	30.5	n/a	n/a	n/a

Source: Own computations using EU-LFS data
Notes: N/A refers to cases when transitional arrangements when not in place. Data for Germany comes from the Federal Statistical Office. Due to the small sample, the values for Finland and Sweden are aggregated for EU8+EU2.

Figure 1. The evolution of self-employment rates for EU2 migrants, 2004-2015

Graphs by country
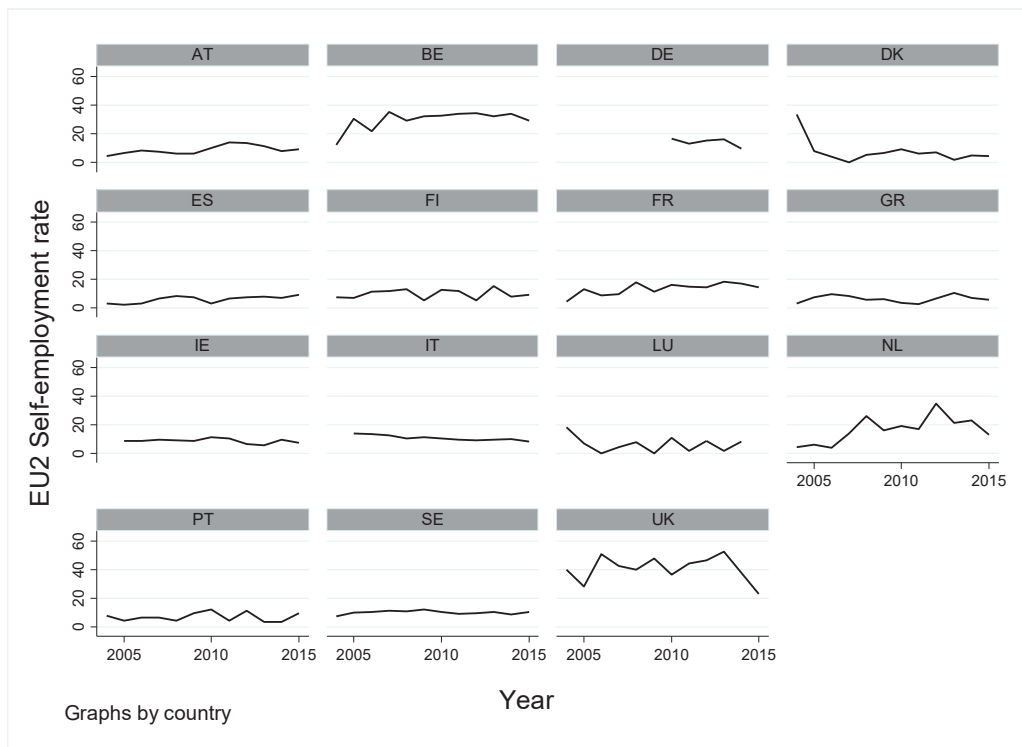
Source: Author computations and EULFS data

Figure 2. The evolution of self-employment rates for EU8 migrants, 2004-2015

Graphs by country
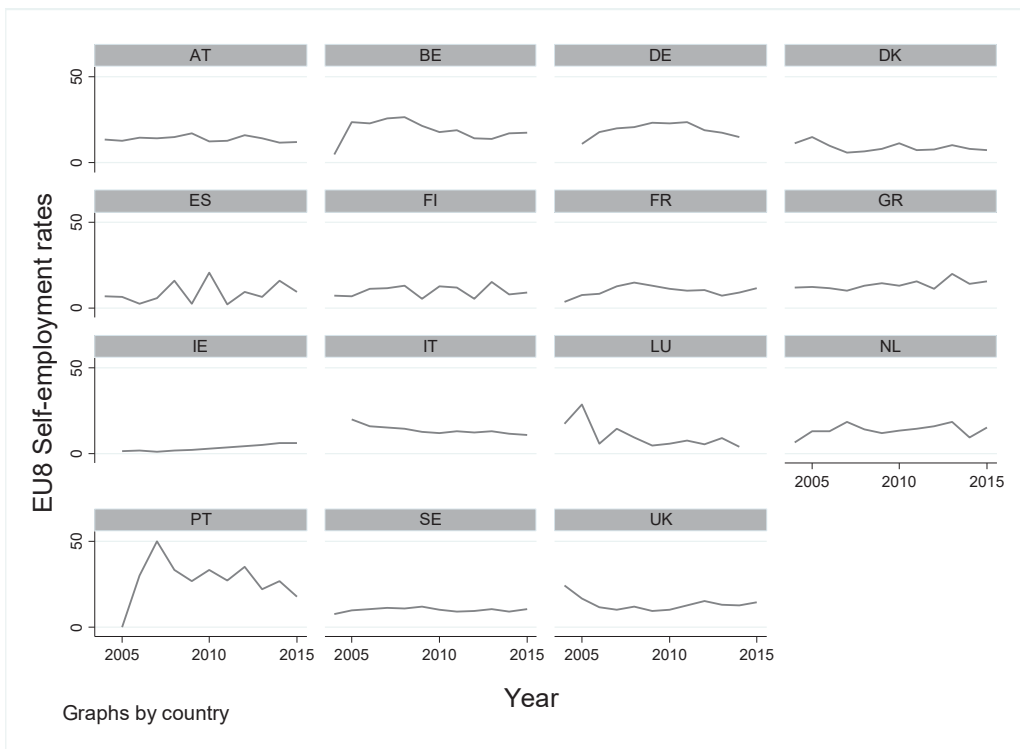
Source: Author computations and EULFS data

Figure 3. Change in the age structure of self-employed EU-2 migrants pre- and post-enlargement
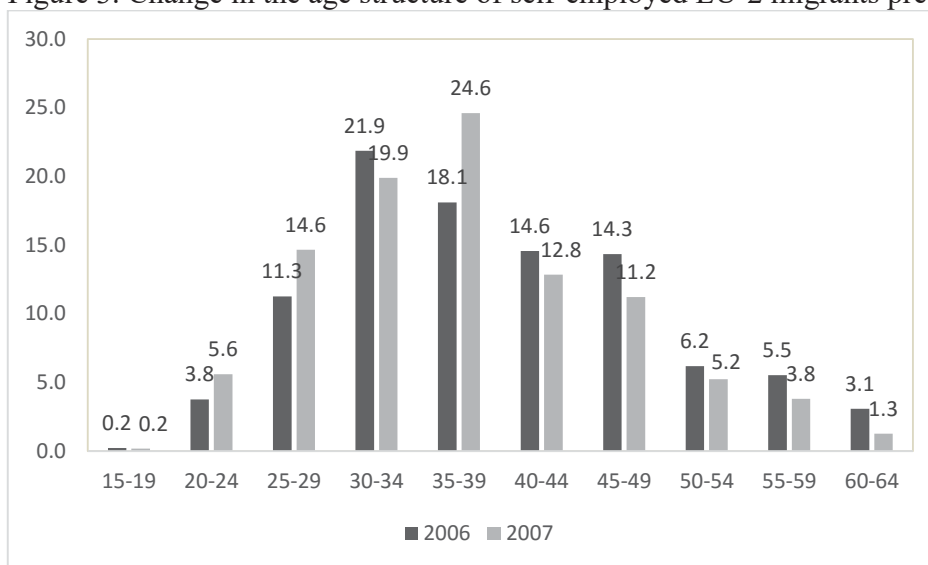
Source: Authors computations using EULFS Data

Figure 4. Change in the gender disaggregation for self-employed EU-2 migrants, pre- and post-enlargement
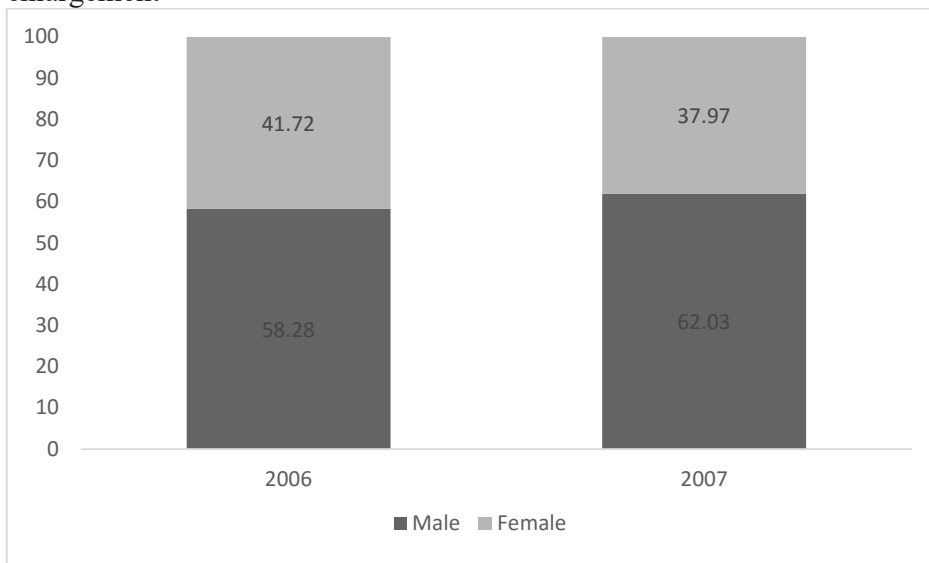
Source: Authors computations using EULFS

Figure 5. Change in the education trends for self-employed EU2 migrants, pre- and post-enlargement

	ISCED 0-2	ISCED 3-4	ISCED 5-8
2007	23.6	55.0	21.4
2006	22.8	52.1	25.1
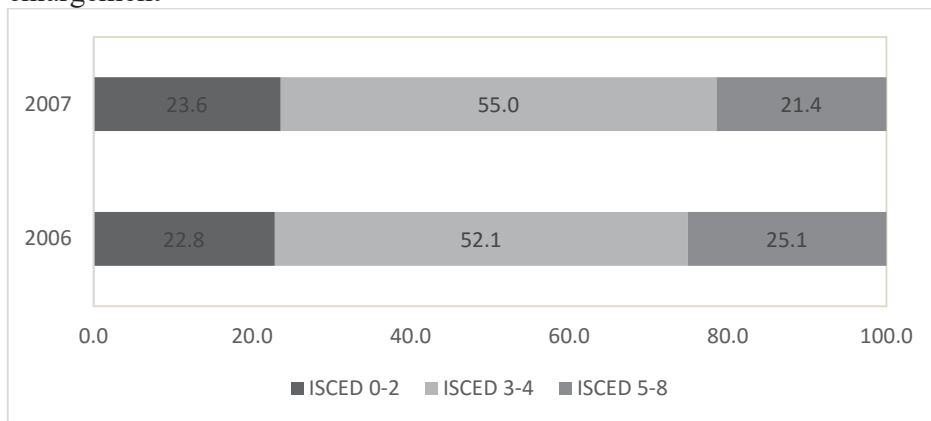
Source: Authors computations using EULFS

Notes: ISCED 0-2 includes less than primary, primary and lower secondary education; ISCED 3-4 includes upper secondary and post-secondary non-tertiary education; ISCED 5-8 includes tertiary education (based on the International Standard Classification of Education (ISCED) 2011)

Table 3. Correlation matrix, EU8 migrant group

	EU8 SER	Native SER	Female LFPR	GDP growth	GDP per capita	Services %GDP	Unemployment	Interest rates	Transitional arrangements	Enlargement
EU8 SER	1									
Native SER	0.2058	1								
Female LFPR	-0.0788	-0.5903	1							
GDP growth	-0.0873	-0.2441	0.0826	1						
GDP per capita	-0.3144	-0.5919	0.1951	0.2031	1					
Services %GDP	0.0912	0.0596	-0.2281	-0.2677	0.3435	1				
Unemployment	0.0186	0.5589	-0.2779	-0.2761	-0.4798	0.0724	1			
Interest rates	0.1012	-0.0489	-0.0253	0.1372	0.0418	-0.1694	-0.3699	1		
Trans. Arrang.	0.1003	-0.1611	-0.1112	0.2022	-0.0719	-0.1946	-0.2543	0.407	1	
Enlargement	-0.0891	-0.0692	-0.0476	0.1634	-0.087	-0.0833	-0.0746	0.0889	0.2899	1

Table 4. Correlation matrix, EU2 migrant group

	EU2 SER	Native SER	Female LFPR	GDP growth	GDP per capita	Services %GDP	Unemployment	Interest rates	Transitional arrangements	Enlargement
EU2 SER	1									
Native SER	-0.1816	1								
Female LFPR	0.0789	-0.5883	1							
GDP growth	0.0169	-0.2492	0.0851	1						
GDP per capita	-0.0455	-0.6061	0.1895	0.2034	1					
Services %GDP	0.2069	0.0421	-0.2337	-0.2735	0.3421	1				
Unemployment	-0.1922	0.5562	-0.278	-0.2839	-0.4712	0.0768	1			
Interest rates	0.0542	-0.0332	-0.0234	0.1295	0.0453	-0.1507	-0.3781	1		
Trans. Arrang.	0.2454	-0.1237	-0.073	-0.1443	0.2448	0.1742	-0.1896	0.219	1	
Enlargement	-0.0067	0.0019	-0.0122	0.1928	0.0491	-0.0981	-0.1618	0.495	0.2711	1

Table 5. Determinants of EU2 self-employment rates

DV: EU2 self-employment rate	(1)	(2)	(3)
Transitional Arrangements	2.543***	3.487***	3.405***
	(0.898)	(1.110)	(1.126)
Enlargement		-0.956	-0.831
		(1.749)	(1.774)
Native self-employment		0.0715	0.0772
		(0.501)	(0.503)
Female labour force participation		0.779*	0.780*
		(0.408)	(0.409)
GDP growth		0.0917	0.150
		(0.174)	(0.214)
GDP per capita		-0.000109	-0.000116
		(9.68e-05)	(9.83e-05)
Services as % of GDP		-0.225	-0.180
		(0.343)	(0.357)
Short term interest rates		-0.393	-0.394
		(0.394)	(0.395)
Unemployment rate		0.0287	0.00812
		(0.175)	(0.181)
The Great Recession			0.651
			(1.383)
Constant	11.94***	-8.265	-11.40
	(0.536)	(30.77)	(31.56)
Observations	170	170	170
R-squared	0.050	0.103	0.104
Number of countries	15	15	15
Country FE	YES	YES	YES

Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 6. Determinants of EU8 self-employment rates

DV: EU8 self-employment rate	(1)	(2)	(3)
Transitional Arrangements	0.224	-1.754	-1.790
	(0.919)	(1.268)	(1.273)
Enlargement		-2.349	-2.336
		(1.769)	(1.774)
Native self-employment		0.753	0.761
		(0.482)	(0.484)
Female labour force participation		0.170	0.170
		(0.378)	(0.379)
GDP growth		0.237	0.304
		(0.154)	(0.200)
GDP per capita		-0.000201**	-0.000211**
		(0.000100)	(0.000102)
Services as % of GDP		0.169	0.215
		(0.326)	(0.338)
Short term interest rates		1.092***	1.102***
		(0.337)	(0.338)
Unemployment rate		0.154	0.134
		(0.162)	(0.167)
The Great Recession			0.670
			(1.282)
Constant	12.74***	-14.05	-17.26
	(0.467)	(30.40)	(31.09)
Observations	174	174	174
R-squared	0.000	0.109	0.111
Number of countries	15	15	15
Country FE	YES	YES	YES

Standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.

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