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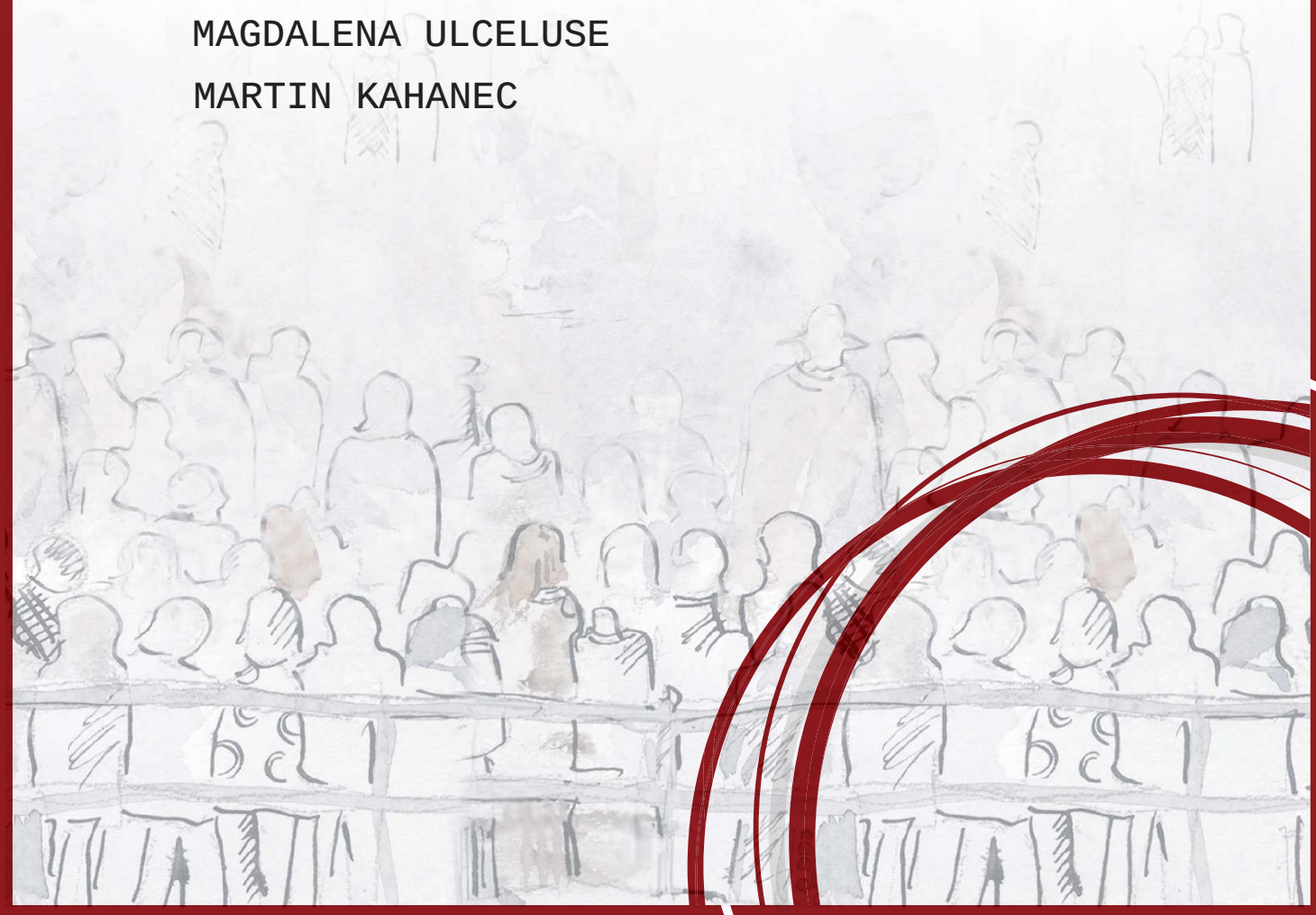

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ABSTRACT

Does Employment Protection Legislation Promote Immigrant self-employment?*

The paper analyses the effect of employment protection legislation on immigrant self-employment rates, using OECD indicators on the strictness of employment protection legislation (EPL). As migrants are outsiders in the labour market, the effect of employment protection on their probability of finding a job should be most likely negative, even if the net effect of employment protection on aggregate employment is unclear. We find no significant effects of EPL of migrant self-employment rates, in a multivariate context.

Keywords: immigrant self-employment; employment protection legislation

JEL Classification: J81, J88, J38, J15

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1. Introduction

The effect of labour market institutions on labour market outcomes has been the subject of extensive research and heated policy debates over the past decades. One of the most investigated[1] such institution has been employment protection regulation (EPL) and its consequences on labour market processes. This focal point might not be surprising, as deciding on a degree of strictness of EPL is paramount to deciding between economic efficiency and labour market protectionism. The right degree of protection (Pissarides 2001) should strike a balance between the flexibility required by companies to adapt to changing labour demands and advances in technology, and the need to protect the workers from unfair behaviour from the employer.

At the same time, there has been a renewed interest among policy-makers in the role that self-employment and business creation can have in fostering economic growth and promoting job creation[2]. Yet, the changing nature of the labour markets requiring increased adaptation and flexibility have blurred the boundaries between actual business creation and dependent self-employment (OECD 2013). A growing number of countries have seen a rising share of independent contractors who depend on a single employer for their income, but are legally self-employed (idem.). The phenomenon has important policy ramifications – dependent self-employment undermines the very purpose of EPL, as workers lose their rights under the labour law and receive less favourable benefits from social security protection (Roman et al 2011). Furthermore, the contribution that dependent self-employment makes to economic growth is not

[1] In a review of existing EPL research, OECD (2013) included 149 references, almost 90 per cent of which were published since the turn of the millennium (Holmlund 2014).
[2] See, for instance, the European Commission's Entrepreneurship 2020 Action plan. Available here: http://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan/

very well understood and might be significantly lower than the ones resulting from [independent] self-employment. Thus, understanding the determinants of self-employment and business creation becomes pivotal to understanding and predicting the future performance of different economies (Kanniainen and Vesala 2005).

This is where the present study intends to make a meaningful contribution. It aims to disentangle the effect that employment protection legislation has on self-employment rates, in a longitudinal[3], cross-country analysis[4]. A major contribution of our study is focusing on immigrant self-employment rates, which, to our knowledge, has not been yet attempted. Europe provides a rare opportunity to study how employment protection legislation affect immigrants' self-employment, as it allows us to follow changes across countries and over time in a longitudinal approach which is hardly possible in other but the EU context. Fixed effects regression analyses are used to disentangle country-level determinants of immigrant self-employment rates.

Employment protection legislation refers to the rules governing the firing and hiring of employees (OECD 2013)[5]. European Union member states have enacted various laws on employment protection over the past several decades, requesting employers to provide, for instance, severance pay or notifications of termination of contract. Said legislation aims to protect workers from dismissal and wage loss, unfair behaviour from employers, to counter imperfection in financial markets that limit workers' ability to insure themselves against job loss, its presence all the more desirable when only sparse unemployment insurance is available (Bertola, Boeri, and Cazes 2000; Scarpetta 2014). However, except for a perfectly functioning

[3] We cover the period between 1995-2013.
[4] We include the EU-15 (Austria, Belgium, Denmark, Germany, Finland, France, Ireland, Italy, Greece, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom) and Iceland, Switzerland and Norway.
[5] See Annex A for more detailed information on the sub-dimensions each EPL indicator includes.

market, we would expect consequences of employment legislation on labour market outcomes and dynamics (Lazear 1990). Because EPL increases firms' firing costs, it may impact on job flows and the level of employment (Sá 2011). Opponents of EPL argue that employment levels decrease, as given the costs of firing employees, attracting new workers is risky, and so, employers are reluctant to hire more of them (Liebregts and Stam 2016). Thus, by imposing costs on firms' adaptation to changes in demand and technology, employment protection legislation may affect not only job destruction but also job creation (Scarpetta 2014). A corollary of this phenomenon is that incumbent workers gain from stricter employment regulation which protects their employment, but outsiders lose from it, furthering inequality among various demographic groups unevenly affected (Heckman and Pagés 2004). Since migrants are the very definition of outsiders, we would expect EPL to have a more pronounced effect on their employment opportunities and their self-employment propensities.

The paper has a twofold contribution to the existing literature. First and foremost, we investigate the effect of employment legislation on immigrants' self-employment rates, the first study of its kind. By virtue of being outsiders to the local labour market, immigrants would be more affected by stringent EPL, with consequences for employment and business creation. Second, we investigate the effects of EPL for both regular and for temporary contracts[6], since we expect their effects to be complementary to a point. If regular contracts are highly regulated, individuals might turn to other forms of more flexible employment, temporary contracts included. Moreover, as seen in Figure 1, there seems to be an interdependency between the two indicators, with countries implementing strict regulation in one case and being more flexible in the other.

[6] As defined by the OECD indicators employed in the analysis.

The study also contributes to policy discussions concerning immigrant entrepreneurship, oftentimes considered a silver bullet for job creation and immigrant labour market integration.

2. Employment protection legislation and self-employment

2.1 Theoretical framework

The relationship between employment protection legislation and self-employment is not straightforward and is often contingent on context and timing.

On the one hand, there are reasons to believe EPL has a negative effect on self-employment. Firstly, the degree of risk aversion and differences in risk between employment and self-employment has an important corollary: if stricter EPL has the effect of reducing the risk of earnings in waged employment relative to the risk of earning from self-employment, then we can expect EPL to decrease self-employment (Roman et al 2011; Parker 1997). Self-employment is an economic activity that entails a high degree of risk and uncertainty, thus individuals might be dissuaded from starting their own businesses if they have the safety of employment. Furthermore, high levels of EPL might discourage individuals already in paid employment from becoming self-employed, as it increases the individual's opportunity cost of changing employers or leaving a secure, salaried job (idem). For instance, severance pay usually protects workers with the longest tenure, who would lose their place in line if they were to try self-employment and return after to their former employer (Henrekson 2007; Henrekson and Roine 2007; Roman et al 2011). Finally, tighter labour regulations impose burdens disproportionately on smaller firms, which can least afford the costs of firing and hiring that stricter EPL imposes (Parker 2007). Moreover, it is significantly costlier to retain unsuitable workers in small firms where

every employee counts, than in larger firms, therefore individuals who might consider becoming self-employed might refrain from doing so if they foresee considerable costs associated with labour regulations (Parker 2007; Roman et al 2011).

Employment regulation, however, can be positively related to self-employment too (Grubb and Wells 1993). The negative relation between self-employment and EPL presented above might be undermined if employers can circumvent employment protection legislation by outsourcing work to self-employed contractors, the so called dependent self-employees. In the context of stricter EPL, dependent self-employees might even earn more than if they remained employees, since contracting out allows employers to reduce labour costs (Roman et al 2011). Thus, stricter EPL is likelier to promote transitions from paid employment to self-employment, by means of mutual arrangements between an employer and his employees, engendering and perpetuating the phenomenon of "dependent self-employment" (idem). If that is the case, it means that employers can significantly undermine the role of EPL – which is in place to protect the rights of waged workers – by substituting these very workers for self-employed contractors. This would also entail that a significant proportion of observed self-employment could be "false", and used to conceal what is essentially an employment contract (Robson 2003).

Self-employment is particularly significant for migrants, for which it provides an alternative to the various labour market barriers (discrimination, non-recognition of diplomas and qualifications, under or over-qualification, etc.) they encounter on the path to employment. Thus, an over-representation of migrants in self-employment could be seen as a rational response to adverse labour market conditions (Clark and Drinkwater 1998), such as the insider-outsider divide that high employment protection engenders. However, the relationship between EPL and immigrant self-employment is not clear-cut. Labour markets with strong employment protection

may reduce mobility in and out of employment (D'Amuri and Peri 2012). As migrants are usually newcomers, and thus outsiders in the labour market, the effect of employment protection on their probability of finding a job would then be most likely negative, even if the net effect of employment protection on aggregate employment is unclear (Bazilier and Moullan 2012). This would imply a positive relationship between EPL and self-employment, if migrants turn to self-employment because of limited options in waged employment. More flexible labour markets, in turn, could facilitate immigrants' absorption, by facilitating job upgrading and job mobility, and thereby reducing self-employment since now there are waged employment opportunities for migrants (Angrist and Kugler 2003). Similarly, as outsiders and new to the country, migrants may be less informed about their rights and may, for instance, not claim compensation for 'unfair' dismissal (Sá 2011). This would make them preferable employees to native workers, irrespective of the degree of EPL strictness, which again might lead to less self-employment since now there are waged opportunities.

The next section provides an overview of what we know from empirical studies about the relationship between EPL and self-employment.

2.2 Empirical evidence

The empirical literature examining the effect of EPL on self-employment is relatively small, and has been inconclusive so far. In some of the earliest studies to investigate the relationship, and including agricultural self-employment too, OECD (1992, 1999) and Grubb and Wells (1993) find a positive relation between EPL and self-employment rates in OECD countries. Still including agricultural self-employment, Van Stel et al (2007) and Bjørnskov and Foss (2010), however, find a negative relation between EPL and self-employment.

Excluding agricultural self-employment does not yield more conclusive findings. Investigating 19 OECD countries over the period 1978-1998, Kanniainen and Vesala (2005) find that labour market regulations reduce self-employment propensities, while Kugler and Pica (2008) find than an Italian reform in 1990 increasing dismissal costs reduced firms' entry rates. Torrini (2005) examines the role of institutional variables in determining the large disparities observed in self-employment rates across OECD countries and finds that the relationship between employment protection legislation and self-employment does not hold in a multivariate context. Similarly, Robson (2003), finds little evidence for a positive relationship between self-employment and the strictness of EPL. Moreover, he finds that, while the raw data suggests a positive relation might exist, once control variables are introduced, stricter employment protection legislation seems to actually decrease self-employment. Investigating the effect of dismissals protection on labour market dynamics, the speed of adjustment issue and on gross flows, Addison and Teixeira (2003) find a positive association between employment protection and self-employment. Roman, Congregado, and Millan[7] (2011) find that the strictness of employment protection legislation encourages employers to contract out work to their own paid employees, promoting dependent self-employment. Moreover, their results suggest that stricter EPL makes transitions to independent self-employment less likely by altering the relative risk appraisal between salaried work and self- employment in favour of the former. More recently, looking at transitions in and out of self-employment for older workers, Christelis and Fonseca (2016) find that EPL is positively associated with self-employment, as stricter regulations make it more difficult to find paid employment. Disentangling between severance pay and notice period, find that the former is positively associated, while the latter with self-employment.

[7] They distinguish between dependent self-employment, akin to contracting out, and independent self-employment, closer in meaning to what is considered entrepreneurship.

The variation in results can be attributed to a significant degree to the variation in indicators used to measure the strictness of employment protection legislation across these studies. Moreover, as previously mentioned, the effect of EPL is contingent on geographical scope, the period under analysis, the methods utilised and the sources of the data – all are potential explanations of the extensive variation in results we observe.

3. Data, covariates and empirical model

Immigrant self-employment rates

We use the European Union Labour Force Survey (henceforth EUL-FS) to compute our dependent variables, immigrant self-employment rates. The EU-LFS is a large household sample survey providing quarterly results on labour participation of people aged 15 and over as well as on persons outside the labour force. The EU-LFS covers the 28 Member States and Iceland, Switzerland and Norway, from 1983 onwards. The survey uses the same concepts and definitions, follows the International Labour Organization Guidelines, uses commons classifications (NACE, ISCED, NUTS, ISCO), and collects the same set of characteristics in each country, making it highly comparable across countries. We focus on the EU-15 countries and Iceland, Switzerland and Norway only, as the dynamic between intra-EU and non-EU immigration distinguishes them from other advanced capitalist countries. The EU-10[8], EU-2[9] and Croatia are also excluded from the analysis, as they have a more recent experience with immigration, thus a relatively small immigrant population and negligible immigrant self-employment rates. We compute our dependent variable, immigrant self-employment, is

[8] Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
[9] Bulgaria and Romania.

computed as the share of self-employed migrants in the total migrant active population, by country of birth, using the EU-LFS, from 1995-2013[10].

Employment protection legislation

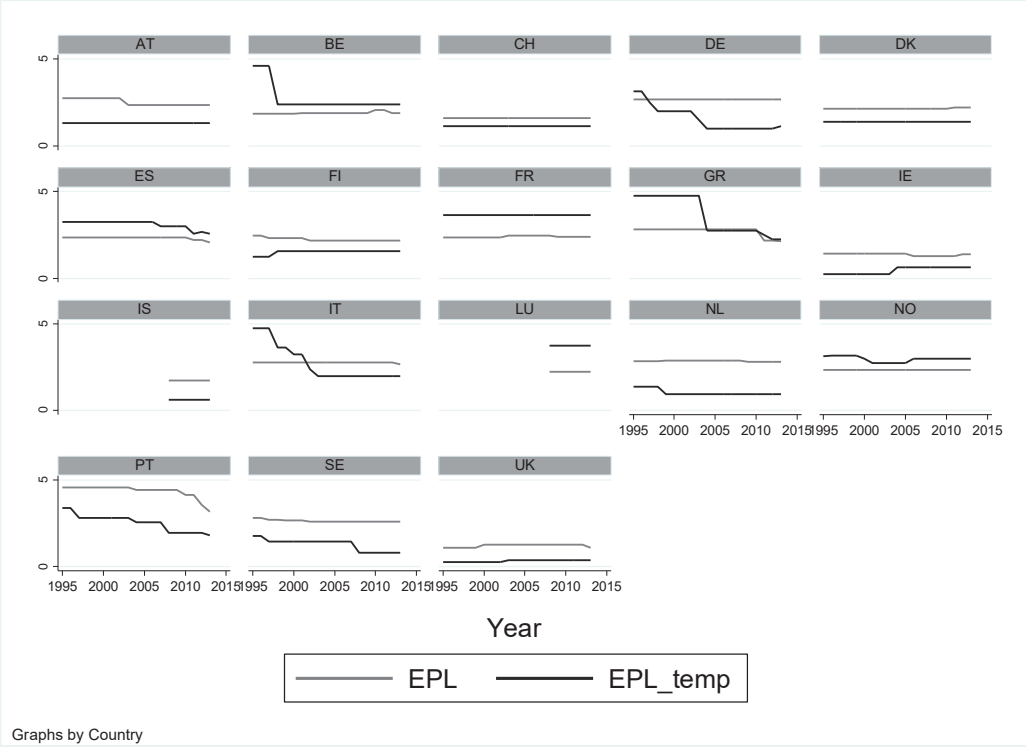
Measuring employment protection legislation is not a straightforward process. While quantitative measures can be readily computed for some aspects like the number of months' notice for termination, other aspects are more difficult to measure precisely, such as the willingness of labour courts to entertain law suits filed by fired workers or judicial interpretation of the notion of "just cause" for termination (Bertola et al 2000). The employment protection legislation indicators for regular and temporary contracts used in the analysis originate from the OECD EPL database[11] (2013). Despite its shortcomings (see Myant and Brandhuber 2016 for an in-depth discussion), its cross-country comparability makes it a very appealing indicator, and its use enables us to compare our findings to previous studies which have employed it.

The indicators measure the procedures and costs involved in dismissing individuals and the procedures involved in hiring workers on fixed-term or temporary work agency contracts. The indicators have been compiled using the OECD Secretariat's own reading of statutory laws, collective bargaining agreements and case law as well as contributions from officials from OECD member countries and advice from country experts. These time-dependent indicators are compiled from 21 items covering different aspect of employment protection legislation, and it takes values between 0 and 6, from less to more protected workers.

[10] We do not have observations on self-employment and country of birth for the period before 1995, in the EU-LFS.
[11] Please see Annex 1 for sub-components. The indicators and details on how they are constructed are available in OECD (1999) and OECD (2004).

Figure 1 presents the evolution of employment protection legislation across the 18 countries under analysis for regular and temporary contracts. There is considerable variation across countries in the degree of strictness. The UK stands out as the least regulated country based on indicators for dismissals of individual workers on permanent contracts, followed by Ireland and Switzerland. By contrast, regulations in Portugal, Germany or the Netherlands seem to be more stringent. There does not seem to be much time variation with countries, however. With a few exceptions (notably Portugal, but also Ireland, Greece, France), most countries have left the regulation of permanent contracts virtually unchanged over the period analysed. Concerning regulation governing temporary contracts, a clear pattern of increased flexibility can be noticed across the board. What is more, countries with stricter EPL seem to have increased flexibility over temporary contracts (see Portugal, Austria, Netherlands, etc.). Thus, that while the protection afforded by regular contracts remains more or less constant over time, more use if being made of temporary contracts. The observation seems in line with Scarpetta's (2014) assessment that in countries with rigid regulations on permanent contracts, the hiring and firing of temporary workers accounts for a large majority of gross worker flows.

Figure 1. Evolution of EPL and EPL_temp, 1995-2013



Source: OECD Indicators of Employment Protection Legislation, 2017

Union density

Most EPL indicators are based on the legal constraints that apply in each country, which makes them less suited for tracking asymmetries across countries and over time in the degree of enforcement of employment protection (Bertola et al 2000). For this reason, we add to our analysis a measure of union density, employed here as a proxy for the degree of enforcement of employment protection. The source of the indicator is the OECD Database.

Unemployment rate

A number of studies suggest that the rate of self-employment may be related to the rate of unemployment. 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 source of the indicator is the OECD Database.

GDP per capita

To measure the effect of economic development on migrant self-employment, we use the level of GDP per capita, originating from the OECD Database. GDP per capita 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 result 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).

Interest rates

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.

We also include as a control variable the self-employment rate of the native population, which proxies other unobserved characteristics of the business environment, including opportunities and barriers.

3.1 Empirical model

To discern the effects that employment protection legislation has on migrant self-employment rates, we estimate the following model:

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

where Y_{it} is the dependent variable, namely migrant self-employment rates (and native self-employment rates for comparative purposes), X represents the independent variable, first employment protection legislation for regular contracts followed by employment protection legislation for temporary contracts, t refers to the time units, i to the cross-national units, and ε is the error term. Z represents a vector of control variables which have been found to be associated with self-employment in the existing literature.

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. We also add time fixed effects to eliminate the potentially spurious effect of aggregate trends.

3. Results

This section presents the results of our empirical analysis, in two stages, investigating first the effect of EPL for regular contracts and then the effect of EPL for temporary contracts.

We begin by exploring the correlation between immigrant self-employment with the variables used in our empirical specifications (table 1). Most notably, migrant self-employment seems to be negatively correlated with GDP per capita, and positively correlated with the native self-employment rates. The correlation with employment protection legislation seem to be

relatively low. The variables do not display signs of collinearity[12], thus using all the controls identified above at the same time should not constitute an issue.

Table 1. Correlation matrix

	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
1. Migrant SER	1						
2. Native SER	0.3832	1					
3. GDP per cap	-0.4116	-0.4589	1				
4. Unemployment	0.395	0.4415	-0.388	1			
5. EPL	0.0474	0.3631	-0.3398	0.0122	1		
6. EPL temp	0.0767	0.2763	-0.1466	0.3013	0.3808	1	
7. Interest rates	0.1498	0.3322	-0.4606	0.4364	0.115	0.1106	1

Note: SER= self-employment rate

Table 2 presents the estimates of the effect that EPL for regular contracts has on migrant self-employment rates. The first column, a parsimonious model in which we only include EPL is the only one where we find significant effect. Employment protection legislation for regular contracts seems to have a negative effect on migrant self-employment rates, effect that, however, does not hold when we introduce control variables. Rather, it seems that most of the variation in our dependent variable is explained by the level of GDP per capita, which seems to be positively associated with migrant self-employment rates. Union density, our proxy for the level of monitoring and enforcing of EPL, seems to have a negative effect, reinforcing the effect of EPL itself. Our results confirm previous studies (see Robson 2003; Torrini 2005), which have found that the relationship does not hold in a multivariate context.

We expect the relationship between EPL and immigrant self-employment to not be linear, and the effect of EPL to change after a certain level, which is why we introduce a quadratic[13] term in column 3. Neither the term nor the quadratic term appear significant in this model, although the direction of the effect would suggest an inverted U-shaped pattern, where the turning point is 2.1 (on an EPL scale of 0-6).

[12] We test for both collinearity and multicollinearity and find no indication of it being present.
[13] Mean-centering the EPL and quadratic EPL yields the same results.

In column 4, we take a look at the effect of EPL on native self-employment rates, for a comparative perspective. In this case too, employment protection legislation does not seem to have a significant effect, although in this case too, unions seem to play a significant role.

Table 2. The effect of EPL for regular contracts

VARIABLES	(1) Migrant self-employment	(2) Migrant self-employment	(3) Migrant self-employment	(4) Native self-employment
EPL	-1.984*	-2.591	-1.081	-2.299
	(1.122)	(1.675)	(4.340)	(1.615)
Native SER		0.770***	0.784***	
		(0.182)	(0.186)	
GDP per cap		5.72e-05**	5.82e-05**	4.03e-06
		(2.64e-05)	(2.66e-05)	(9.79e-06)
Unemployment		-0.0133	-0.0156	0.120***
		(0.0798)	(0.0802)	(0.0273)
Union density		-0.208***	-0.211***	-0.112***
		(0.0798)	(0.0807)	(0.0290)
Interest rates		0.0509	0.0549	0.0591
		(0.120)	(0.121)	(0.0450)
EPL^2			-0.257	0.747***
			(0.681)	(0.250)
Constant	16.55***	12.67**	10.59	19.61***
	(2.798)	(5.392)	(7.716)	(2.531)
Observations	263	257	257	273
R-squared	0.123	0.256	0.256	0.339
Number of countries	17	17	17	18
Country FE	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes

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

Our estimates for the effect of EPL for temporary contracts are presented in Table 3. If we disregard for a moment the lack of significance when introducing control variables, it becomes immediately striking that EPL for temporary contracts, unlike EPL governing regular contracts, has a positive effect on migrant self-employment rates. The effect carries on for native self-employment rates too, although of a somewhat lower magnitude. This second analysis confirms the important role that GDP per capita – a proxy for the level of economic development of a country, and, implicitly of the opportunities available for business creation – has on immigrant self-employment.

This time too, the sign of the quadratic term suggests an inverted U-shaped relationship between the strictness of EPL and immigrant self-employment rate, with a 3.8 turning point. We expect thus the positive effect of EPL for temporary contracts to decline past this point. Therefore, for countries with EPL for temporary contracts with values below this ceiling (all in our sample), additional increases would lead to more immigrant self-employment, however, beyond the 3.8 point (and a scale of 0-6), stricter EPL for temporary contracts imposes costs that would discourage migrant self-employment. IT would seem, thus, that higher migrant self-employment rates would appear in countries with moderate levels of employment protection legislation, at least for temporary contracts.

Table 3. The effect of EPL for temporary contracts

	(1)	(2)	(3)	(4)
VARIABLES	Migrant self-employment	Migrant self-employment	Migrant self-employment	Native self-employment
EPL_temp	0.669*	0.330	2.045	0.276
	(0.391)	(0.416)	(1.617)	(0.522)
Native SER		0.705***	0.680***	
		(0.178)	(0.179)	
GDP per cap		4.93e-05*	4.86e-05*	1.12e-05
		(2.67e-05)	(2.67e-05)	(1.03e-05)
Unemployment		0.0229	0.0334	0.0999***
		(0.0783)	(0.0788)	(0.0281)
Union density		-0.247***	-0.271***	-0.0971***
		(0.0744)	(0.0774)	(0.0292)
Interest rates		0.148	0.131	-0.00234
		(0.109)	(0.110)	(0.0429)
EPL_temp^2			-0.268	-0.0491
			(0.244)	(0.0809)
Constant	10.14***	7.481	6.989	18.50***
	(1.146)	(5.037)	(5.055)	(1.421)
Observations	263	257	257	273
R-squared	0.122	0.250	0.254	0.278
Number of countries	17	17	17	18
Country FE	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes

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

Lastly, table 4 presents the estimates of model 3 in which we include both indicators and an interaction term. As noticed elsewhere, there is a high degree of complementarity between the two indicators, as oftentimes temporary contracts are a way to meet the need for flexibility for firms and ease the constraints imposed by the regulation of regular contracts (Scarpetta 2014). When taken together, in a parsimonious model (column 1), both indicators are significant and maintain the magnitude of their effect; EPL seems however to explain more of the variation in our dependent variable. Colum 2 introduces the interaction term, which seems to increase the effect of EPL for regular contracts. However, when we account for control variables, both indicators, again, lose all significance.

Table 4. The effect of the interaction between EPL and EPL for temporary contracts

	(1)	(2)	(3)
VARIABLES	Migrant self-employment	Migrant self-employment	Migrant self-employment
EPL	-2.576**	-3.707*	-2.051
	(1.144)	(1.931)	(2.197)
EPL_temp	0.880**	-0.0612	-0.492
	(0.399)	(1.354)	(1.338)
EPL#EPL_temp		0.373	0.349
		(0.513)	(0.512)
GDP per cap			5.63e-05**
			(2.78e-05)
Unemployment			0.0929
			(0.0810)
Union density			-0.293***
			(0.0813)
Interest rates			0.116
			(0.125)
Constant	15.88***	18.55***	24.94***
	(2.791)	(4.605)	(6.138)
Observations	263	263	257
R-squared	0.141	0.143	0.199
Number of countries	17	17	17
Country FE	Yes	Yes	Yes
Time FE	Yes	Yes	Yes

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

4. Discussion

This paper has investigated the relationship between migrant self-employment rates and the strictness of employment protection legislation, across 18 European countries, in a longitudinal analysis. In a similar fashion to Torrini (2005) and Robson (2003), we find that neither EPL for regular contracts nor EPL for temporary contracts has a significant effect, in a multivariate context. One important finding of our paper is the different effect that employment protection has on migrant self-employment, when we distinguish between these two types of contracts. While the strictness of protection for regular contracts seems to be associated with less immigrant self-employment, the effect of employment legislation for temporary contracts seems to go in the other direction. This has important policy implications: the indicators of the strictness of the regulation of temporary contracts measure how easily firms can resort to alternative types of contract to meet their need for flexibility and ease the constraints imposed by regulations on regular contracts, thus, this type of self-employment might be triggered by contracting out of the previously employment (Scarpetta 2014), resulting in increased shares of dependent self-employment. Moreover, liberalizing temporary contracts while retaining stringent regulation of permanent contracts tends to contribute to increased labour market segmentation; there is a positive correlation between the strictness of regulation on temporary contracts and the strictness of regulation for regular contracts (Scarpetta 2014). This in turn can contribute to further inequality between the different demographic groups affected unevenly by the regulations. As previously noted, as the outsiders, migrants may find it all the more difficult to get into paid employment, turning to self-employment as a last resource.

However, further progress in understanding the relationship between EPL and immigrant self-employment requires more research into other factors too, such as the link between labour

and product market regulation because policies that make it more difficult to start and operate a business will limit the growth in self-employment, and the opportunity cost of self-employment, including the relative level of security contributions that have to be to the self-employed (Addison and Teixeira 2003).

An important corollary of our findings is the fact that differences in the strictness of employment protection could explain variation in immigrant self-employment rates across countries.

No study is without limitation and the present one is, of course, no exception. Firstly, we have decided to use the OECD indicators because of their comparability across countries and across studies, however, we recognize their shortcomings. As mentioned previously, employment protection legislation entails a complex and varied array of measures, many different types of atypical contracts and many country-specific idiosyncrasies, which makes harmonizing all this information, a difficult task. It is perhaps not surprising, then, that the number of previous studies have not reached a conclusion with regards to its effect. Our findings, thus, should be interpreted considering this fact in mind. Secondly, as in any cross-country comparison, our findings could be driven by the presence of other labour market variables whose effect is difficult to disentangle from the effect of employment protection. Nevertheless, after introducing fixed and time fixed effects, and thus controlling for time trends and time-invariant country differences, we are confident are results are rather robust. Lastly, we use indicators on employment protection that are aggregated at the country level. However, as Liebregts and Stam (2016) point, this might be misleading, because, for instance, in the Netherlands, most employment protection regulations are laid down in collective agreements, in

addition to the existing legislation. This should not be a significant problem, nevertheless, since sectoral or collective agreements should reflect the ones set up at the national level.

4.1 Policy implications

While fairly clear from a theoretical standpoint, the effects of EPL on migrant self-employment are rather difficult to measure in practice because of the complex and elusive nature of the existing information, and of the EPL concept itself (Bertola et al 2000). This difficulty is quite obvious in the sometimes contradictory, often confusing results of previous studies, which do not reach a consensus with regards to the effect that EPL has on self-employment, or broader labour market dynamics for that matter. This lack of concrete evidence has made the design and implementation of suitable policy responses quite difficult.

Policy recommendations regarding EPL should be formulated with care, because of its complex multi-dimensional nature. Moreover, as our results show, the different aspect of employment protection are interdependent and changes in one sphere should be accompanied by changes in the other.

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Annex A. Sub-components of EPL for regular and temporary contracts

Strictness of employment protection – individual dismissals (regular contracts)	Procedural inconvenience	Notification procedures
		Delay involved before notice can start
	Notice and severance pay for no-fault individual dismissal	Length of the notice period at 9 months tenure
		Length of the notice period at 4 years tenure
		Length of the notice period at 20 years tenure
		Severance pay at 9 months tenure
		Severance pay at 4 years tenure
		Severance pay at 20 years tenure
	Difficulty of dismissal	Definition of justified or unfair dismissal
		Length of trial period
		Compensation following unfair dismissal
		Possibility of reinstatement following unfair dismissal
		Maximum time to make a claim of unfair dismissal
Strictness of employment protection – temporary employment	Fixed-term contracts	Valid cases for use of fixed-term contracts
		Maximum number of successive fixed-term contracts
		Maximum cumulated duration of successive fixed-term contracts
	Temporary work agency employment	Types of work for which temporary work agency (TWA) employment is legal
		Restrictions on the number of renewals of TWA assignments
		Maximum cumulated duration of TWA assignments
		TWA: authorisation or reporting obligations
		Equal treatment of regular and agency workers at the user firm

Source: OECD 2004


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