

Firm Dynamics and Employment Protection: Evidence from Sectoral Data

(very preliminary, please do not circulate without permission)

Anna Bottasso
University of Genova

Maurizio Conti
University of Genova

Giovanni Sulis
University of Cagliari
CRENoS
IZA

This Version: September 7th, 2015

Abstract

Using the most recent version of the OECD Structural and Business Statistics Database, in this paper we analyse the impact of employment protection legislation (EPL) on firms' entry and exit rates for a large sample of industries of thirteen OECD countries. Using a differences-in-differences identification strategy, we find that more stringent EPL is associated to lower entry and exit rates, particularly in industries that are characterized by higher job reallocation intensity. We also find that both collective and individual dismissal regulations reduce firms' entry and exit rates. Interestingly, our results suggest that the negative effects of EPL is mainly limited to the case of firms between 1 and 9 employees while, in the case of larger ones, we find that different specific provisions tend to have opposite effects on both entry and exit rates, so that the overall effect of EPL is small and not statistically significant. Finally, we provide a series of sensitivity checks that suggest that our results are robust.

Key words: entry & exit, turnover, employment protection legislation, reallocation.

JEL codes: J65, L11, L26.

1. Introduction

Recently, a large and growing empirical and theoretical literature has ascribed to the misallocation of resources an important share of the cross-country differences in incomes and productivity (Restuccia and Rogerson (2008), Hsieh and Klenow (2009) and Bartelsman et al. (2013), among the others). In particular, this literature has highlighted the importance of static allocative efficiency (i.e. the extent to which more productive firms tend to have larger market shares) as a driver of cross-country productivity level differentials (Bartelsman et al. (2013), Andrews and Cingano (2014)). Moreover, other authors (e.g. Foster et al, 2001) have found that, in many countries, a sizeable share of productivity growth derives from reallocation of resources, within narrowly

defined sectors, from low productivity to high productivity establishments (dynamic allocative efficiency).

Reallocation of resources can work through expansion and contraction of existing firms, or via the entry-exit channel: indeed, some studies have found that exiting firms are in general low productivity ones, while, if a sufficient window of time is allowed for, entering firms on average tend to become high productivity producers (or rapidly shrink and exit). As a matter of fact, and leaving aside any measurement error issue (Foster et al, 2001), the “net entry” (i.e. entry less exit) component of reallocation seems to account for a non-negligible share of aggregate productivity growth. For instance, some authors have found that, in the case of the US and over a five or ten-year horizon, at least one quarter of aggregate productivity growth is associated to the net entry component (see Foster et al, 2008 and Foster et al (2001)), i.e. to the exit of low productivity firms and the entry and expansion of high productivity ones.¹ Also in this case, there are non-negligible differences across countries in the contribution of net entry to aggregate productivity growth, which in turn suggests that such cross-country differences might be associated to country-level heterogeneity in government policies and institutions.² As a first step in order to better comprehend whether and how a given set of government policies and institutions affect the contribution of net entry to productivity growth, some authors have studied the impact that labour and product market regulations, barriers to entry, taxation or financial development have on average entry and exit rates.³

In particular, a number of studies have considered the implications of EPL for the incentives of firms to enter and exit. In the case of entry, the consensus generally acknowledges that more rigid labour markets tend to deter entry. For instance, Bertola (1994), by modelling firing costs as an adjustment friction, argues that they reduce the value of the firm and therefore the firms’ incentives to enter, *ceteris paribus*. Similarly, Koeninger and Prat (2007) also find that firing costs reduce firm entry in their model because, by reducing the shadow value of labour, they increase the productivity threshold above which it is convenient to enter. However, Klepper et al (2006) note that rules that restrict employers’ freedom to fire may reduce start-up costs because they protect employees, therefore giving the latter the confidence to join small and untested firms. Moreover, large firms might be more harmed by employment protection rules because the latter are in general tougher in the case of larger firms and this can give more space to start-ups, which are disproportionately small ventures. However, because the costs entailed by EPL have in general fixed components -that are more binding in the case of small firms- a rigid labour market might deter entry, especially in the case of small firms (Bartelsman et al, 2009).

The empirical evidence on entry and EPL is scant and generally referred to single country studies. In particular, Autor et al (2007) find that after the introduction of the good faith exception (a form

¹ In some sectors, its contribution can be even higher. Foster et al (2006) found that virtually all productivity growth in the US retail sector was due to entry of high productivity firms and to the exit of low productivity ones. In general, the contribution of net entry to productivity growth is larger in more technologically advanced sectors (Martin and Scarpetta, 2012).

² Bartelsman et al (2009) show that net entry accounts for between one-fifth and one-half of aggregate productivity growth in a sample of OECD countries.

³ Although cross country differences in average entry and exit rates are not large (Bartelsman et al. (2009)), this could be due to different regulations and/or institutions in place in different countries that have opposite impacts on entry and exit rates.

of common law exception to the “employment-at-will” doctrine consisting in the prohibition to employers to fire workers for a bad cause) the number of entering firms fell significantly. Similarly, Kugler and Pica (2008) found that a 1990 reform in Italy -which increased EPL for small (below 15 employees) firms only- reduced entry of small firms relatively to larger ones. The only study using cross country data is Aghion et al (2007) who found that EPL is associated to smaller entry rates particularly in industries that are naturally characterized by stronger labour reallocation.⁴

By way of contrast, the theoretical literature on EPL and exit does not offer clear-cut conclusions. For instance, Poschke (2009), building on Samaniego (2006), models firing costs as both an adjustment cost and as a tax on exit: his theoretical model shows that, if firing costs are charged only to continuing firms, firing costs reduce the value of continuing operations and therefore increases exit, thereby positively contributing to selection and productivity growth.⁵ By way of contrast, if firing costs are levied also on continuing and exiting firms, they reduce the value of continuing but also the value of exit: however, the latter drops more because firing costs are to be borne immediately, thereby reducing exit, with respect to a benchmark economy with no firing costs. Moreover, there might be other reasons to believe that EPL tends to reduce exit: for instance, in countries with rigid labour markets firms will tend to experiment less because of the adjustment costs entailed by high EPL, especially in sectors where experimentation is more important (e.g. those sectors that naturally require more labour reallocation, or those that use ICT more intensively). If this is indeed the case, firms in high EPL countries will use more stable and already experimented technologies and therefore we might expect fewer failures: therefore, the exit rate might be lower in high EPL countries, particularly in sectors requiring high flexibility. Moreover, by reducing exit and keeping more low productivity firms alive, EPL might also deter entry, because resources (capital and labour) are not liberated by firms that would have otherwise exited in more flexible labour market environments.⁶

The empirical literature on exit rates is really scant and does not offer any firm conclusions. To the best of our knowledge, the only studies available in the literature are the already mentioned single country studies by Autor et al (2007), who used US industry panel data at the state level, and by Kugler and Pica (2008), who used Italian firm level panel data: both studies however did not find any statistically significant effect of EPL on exit rates.

In this paper, we use the latest version of the OECD Structural and Business Statistics Database (ISIC Rev 3) and the standard EPL indicators computed by the OECD, in order to study whether firms’ entry and exit decisions are affected by employment protection legislation (EPL) in a cross section of 36 (27) sectors of 13 OECD (EU) countries during the 2004-2007 period. In particular, we use the Rajan and Zingales’ (1998) differences-in-differences approach as an identification framework in order to analyse whether firms’ entry and exit rates are negatively impacted by firing restrictions, particularly in sectors that naturally require more flexibility in labour force adjustment, the latter proxied by industry level worker reallocation rates in the US.

⁴ See also Scarpetta (2002).

⁵ A similar result is also found in the model of Koeninger and Prat (2007) where firing costs increase the productivity threshold below which it is convenient to exit, because they reduce the shadow value of labour and therefore the option of waiting.

⁶ See Aghion et al. (2008).

The main result of this study is that EPL is associated to both lower entry and exit rates. Moreover, we find that the additional burden that firms have to bear in the case of collective dismissals have an additional negative effect on top of those that are associated to stricter individual dismissal regulations. In turn, difficulty of dismissals seems to be the most important regulatory determinant. Interestingly, we find that the negative effects of EPL is mainly limited to the case of small firms (those between 1 and 9 employees) while, in the case of larger ones (these with 10 or more employees), we find that only specific regulatory provisions affect entry and exit. However, because these different provisions tend to have opposite effects, the overall effect of EPL on both entry and exit rates is small and not statistically significantly different from zero for large firms.

This paper is related to different strands of literature. First, our paper is strictly related to Haltiwanger et al (2014) who find that stricter EPL reduces job reallocation (job creation plus job destruction) particularly in those industries and firm size classes that require “more frequent” labour adjustment. Interestingly, they also find that this effect is particularly strong in the case of job reallocation originated by entry and exit of firms (the extensive margin) with respect to that due to reallocation among continuing firms, which in turn suggests that a further look at the impact of EPL on both firms’ entry and exit rates is warranted. A similar study is that of Bassanini and Garnero (2013) who found, using a difference-in-difference approach similar to ours, that countries with stricter EPL tend to display lower within industry job-to-job transitions.

Second, this paper is associated to the literature analysing the link between EPL and productivity growth, which generally finds a negative correlation between labour market rigidity and total factor productivity, particularly in sectors with higher reallocation intensity or in more innovative sectors.⁷

Finally, this study is linked to the empirical literature that has sought to study the impact of government regulations on entry rates as well as to the industrial organization literature on entry and exit (Caves (1998)).⁸

This paper contributes to the previous literature on different dimensions. First, it uses the latest version of the OECD Structural and Business Statistics Database, which measures entry and exit on a consistent basis across countries and for a more recent period than virtually all the recent empirical works on firm turnover. Second, unlike previous comparable studies, such as that of Aghion et al (2007), we disentangle the role of different regulations (e.g. individual versus collective dismissals) and, more importantly, ours is, to the best of our knowledge, the first paper that empirically analyses the link between employment protection legislation and firms’ exit using a consistent cross country-cross industry source of data.

The remainder of the study is organized as follows. In Section 2, we discuss the dataset, while in Section 3 we describe our estimation and identification framework. Section 4 contains the empirical results while Section 5 concludes

⁷ See, among the others, Bassanini et al (2009), Cingano et al (2010), Autor et al (2007) and Conti and Sulis (2015). However, see also Belot et al (2007) who found a positive effect of EPL on per capita GDP and Acharya et al (2010). See also Scarpetta and Martin (2012) for a literature review.

⁸ See Klapper et al (2006) and Ciccone and Papaioannou (2007) for the role of entry costs and regulation; Da Rin et al (2011) on the effects of taxation of corporate income and Samaniego (2010) on the role played by technical change and entry costs, among the others.

2. Data

2.1 Country-industry level

We use the last version of the “SDBS Business Demography Indicators (ISIC Rev. 3)” database from the OECD for our dependent variables.⁹ From this dataset, we extract information on birth (entry) and death (exit) rates based on the number of active employer enterprises (see more below) for a set of 13 European countries (Austria, Belgium, Czech Republic, Denmark, Spain, Finland, Hungary, Italy, Netherlands, Norway, Portugal, Slovakia and Sweden) for the period 2004-2007. The dataset provides information on births and deaths based on different sectors of economic activities at the ISIC Rev. 3 version of STAN including manufacturing, electricity and gas, wholesale and retail trade, hotels and restaurants, transport, financial intermediation and real estate activities (more details in Tables 1 and 2). The total number of industries at the 2 digit ISIC Rev 3 level is 36; however, we exclude the remaining countries/sectors available in the database as information was not reliable or missing for the observation period. We end up with 13 countries and 27 sectors; we also calculate the average of our dependent variables over the period 2004-2007. The complete dataset should include 351 observations (13 countries x 27 sectors x 1 year); however, our baseline regressions are run on 332 (293) observations for entry (exit) rates, with data for exit rates for Sweden that are completely missing. For some countries, the number of sectors is below 27, but it never falls below 24. With the relevant exception of sector “Real estate activity” for which we have information available only for 8 countries, other sectors are equally represented across countries, ranging from 10 to 13 country observations (see Tables 1 and 2).

The main advantage of the SDBS dataset is that it allows us to compare cross country data on entry and exit rates. As Bartelsman et al (2009) discuss, this is the most relevant problem when studying firm dynamics using aggregated sectoral data derived from business statistics and business registry. As pointed out in Eurostat (2007), to ease comparability across countries, the statistical unit to be used for firm demography data is the enterprise. In this paper, we use indicators based on the population of “employer enterprises”, i.e., enterprises that have paid employment or at least one employee.¹⁰ For this population of employer enterprises, absolute numbers of births and deaths are provided, and birth (entry) and death (exit) rates are easily calculated and directly made available by the OECD.¹¹

Our regressions include a set of controls that are derived from the same source. In particular, after matching their (slightly) different sectoral classification, from Bassanini and Garnero (2013) we take the country-industry share of self-employed (shself_BG), share of medium educated

⁹ More information on the dataset is available at <http://www.oecd.org/std/business-stats/eurostat-oecdmanualonbusinessdemographystatistics.htm>.

¹⁰ Moreover, there is recognition that this the population of employer enterprises is distinctly different from the population of non-employer businesses. Note that this is not the only possible unit of observations. For example, in a recent paper on the effect of taxation on firm dynamics, Kneller and Macgowan (2012) use the entire population of active enterprises derived from a previous version of the SBDS database, thus including self-employed.

¹¹ See Eurostat (2007) for more details concerning birth and death events.

(sedum_BG), share of low educated (sedul_BG) and the share of temporary contracts (shtemp2_BG). We take the average values of these control variables over the period 2004-2007.¹²

2.2 Industry level

Our measure of labour reallocation (real_BG_US) is directly taken from Bassanini and Garnero (2013), and it is the average level of sectoral worker reallocation over the period 2004-2007. This measure has been calculated by the authors as the sum of hiring and separations over employment using the Displaced workers/Job tenure supplement of the US Current Population Surveys. Similar measures of job or worker reallocations have been used by Haltiwanger et al. (2013) and Bassanini et al. (2009).

Other industry level control variables are obtained from different sources and, otherwise stated, refer to the US. In Tables 4 and 5 we include the share of employment in total economy in 2004 for each country-industry pair from the STAN database (esht_04), the turnover rate in the US calculated as the sum of entry and exit rates from the SDBS dataset (turnover_US), a measure of financial development from Bravo-Briosca et al (2013) (financialdependency), a measure of R&D intensity over value added from the same source (rdva), the average growth rate 93_03 full-time equivalents in the US from the STAN database (fteng_US) and a measure of capital intensity from Bravo-Briosca et al (2013) (capitalintensity). These variables have been interacted with country level variables that are described in the next subsection.

2.3 Country level

Our preferred measure for employment protection legislation is version 2 of this indicator (eprc_v2) available from the OECD. It is calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals (weight of 5/7) and additional provisions for collective dismissals (2/7). The overall index incorporates 12 detailed data items, and in our robustness checks (see Table 6) we combine them to obtain different sub-indicators for EPL.¹³ In our IV regressions we use legal origin (taken from Bassanini et al, 2009) as instrument for EPL.

In our robustness checks we use the following controls at the country level: OECD indices of burden on start-ups e barriers to competition (bte) as in Andrews and Cingano (2014); a measure of financial development taken from the World Bank (fin_dev), a measure of costs for resolving insolvency from the World Bank (res_insolv), a set of controls for other labour market institutions from Bassanini and Garnero (2013): union density (tud_BG), a measure of corporatism (corp), the tax wedge (twcou2_BG), and the gross replacement rate for unemployment benefits (grr_BG). Finally, we use the EPL index from Economic Freedom of the World database.

¹² These are originally obtained from the Labour Force Surveys micro data and are also made directly available on their webpage.

¹³ For more details see <http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>.

3. Estimation and identification

Our empirical framework is based on the difference-in-difference approach proposed by Rajan and Zingales (1998) and subsequently employed in many other empirical applications.¹⁴ This approach is based on the estimation of the following equation:

$$Y_{s,c} = \alpha Real_us_s \times EPRC_c + \beta W_s Z_c + \lambda X_{s,c} + u_c + u_s + v_{s,c} \quad (1)$$

Where $Y_{s,c}$ is the entry or exit rate in sector s of country c , $Real_us_s$ is the worker reallocation rate of sector s in the US, $EPRC_c$ is the level of EPL in country c , W_s is a set of industry characteristics, Z_c is a set of country level variables, $X_{s,c}$ is a set of variables that vary at both country and sector level, u_c is a country fixed effect, u_s is a sector fixed effects and $v_{s,c}$ is an error term.

A negative sign for the coefficient α of the interaction term $real_us_s * EPRC_c$ indicates that countries characterized by stronger EPL tend to have lower entry and exit rates, especially in industries characterized by high reallocation intensity.

The identification assumption behind equation (1) is that EPL is likely to be more binding in more employment reallocation intensive sectors, where the flexibility requirements in the use of labour inputs are likely to play a more important role. In other words, the idea underlying the Rajan and Zingales (1998)'s approach is that there are industries (in this case those that naturally require more flexibility in the use of the workforce) that are more likely to be more "exposed" to a particular policy (employment protection legislation in this case). Industries that are more exposed to EPL can be considered as a sort of "treatment" group, while those that are less exposed act as "control" group.

The use of US industry data as a proxy for reallocation intensity is motivated by the fact that the US labour market is one of the most flexible and therefore it can approximate the "natural" industry need for employment reallocation that would have emerged also in other countries if they were not characterized by higher levels of EPL. It is important to note that it is not necessary that in each country the industry characteristics takes on the same values as in the US, for the US industry data to be a valid proxy for the "natural" exposure of an industry to a particular policy in a given country. Indeed, it is sufficient that the ordering of the industries is about the same across countries. However, even this milder requirement could be violated because each industry is the aggregate of various sub-industries and if there are important differences across countries in the mix of sub-industries, then using US industry data might entail measurement error, resulting in attenuation bias. Moreover, Ciccone and Papaioannou (2010) have argued that in some circumstances also amplification bias might result, especially when the industry characteristics in the benchmark country might be considered as a better proxy for the industry characteristics in more similar countries (e.g. in our paper in the case of countries with more lax employment protection legislation).

Therefore, because in principle both attenuation and amplification bias might occur in a given dataset, Ciccone and Papaioannou (2010) have proposed an IV estimator which instruments $real_us_s * EPRC_c$ with a two-step procedure. First, they propose to obtain the predicted industry slopes of EPRC by estimating with OLS for all countries (but the US) the following equation:

$$Y_{s,c} = \rho_s \times EPRC_c + e_c + e_s + e_{s,c} \quad (2)$$

¹⁴ For studies on the impact of EPL, see Bassanini et al (2009), Haltiwanger et al (2013), Bassanini and Garnero (2013) and Conti and Sulis (2015).

Ciccone and Papaioannou (2010) showed that the “true” industry reallocation intensity could be built (netting out country effects) as the predicted industry reallocation intensity for the country with the most flexible labour market (the US) as follows: $\widehat{real}_{US} = \hat{\epsilon}_s + \hat{\rho}_s * EPRC_{US}$. Therefore, we use $\widehat{real}_{US} * EPRC_c$ as an instrument for $real_us * EPRC_c$.¹⁵

It is however important to note that this approach only allows us to identify differential effects between more and less reallocation intensive industries. Still, this differential provides us with some indication on the direction of the average effect of employment protection legislation, subject to the identification assumption that in less employment reallocation intensive sectors the effect of EPRC is of the same sign and smaller than in high employment reallocation intensive industries or, alternatively, zero (Bassanini and Garnero, 2013).

In equation (1) country fixed effects should control for any omitted variable at the country level that has the same effect on the entry or exit rate in all industries, such as the quality of institutions, macroeconomic conditions over the period, social norms, etc. In turn, industry dummies may capture differences in technologies, or sector specific patterns of entry or exit, the different stage of an industry’s life cycles, etc.

Our regression specification takes also into account other possible determinants of entry and exit by including the relevant country and sector interactions W_s and Z_c , such as the country barriers to competition or the cost of insolvency and the industry turnover rates, or the industry dependence on external finance and the country level of financial development. Controlling for the relevant country-industry interactions should allow us to take into account the possibility that W_s (e.g. the industry dependence on external finance) and $Real_US_s$ or Z_c (e.g. the country level of financial development) and $EPRC_c$ are correlated: in this case, the omission of the relevant country-industry interactions would tend to bias the OLS estimate of α .

Furthermore, in order to consider the possibility that employment protection legislation might interact with some other industry characteristics, in some specifications we augment our regressions with interactions between $EPRC_c$ and sector level variables, such as R&D and physical capital intensity. Moreover, there might be country-level variables, potentially correlated with $EPRC_c$, that tend to impact on entry and exit rates particularly in industries that have more important labour flexibility requirements. Hence, in some regression specifications we also include additional interactions between $Real_US_s$ and country level variables such as various labour market institutions, barriers to competition, quality of institutions, levels of economic development, etc.

Finally, because there could be concerns that countries that specialize in low turnover rate as well as low reallocation intensity industries might also be less likely to have stricter employment protection legislation, we also present some IV regressions where we instrument $EPRC_c$ with variables related to the legal origin of each country (see the empirical results section).

4. Empirical results

4.1 Baseline results

In Table 3 we report empirical estimates of the baseline specification of equation 1 for both entry and exit rates. All regressions include the interaction between the US worker reallocation rate at industry level and EPRC ($eprc_v2$), country and sector fixed effects, as well as set of controls that vary at both country and sector level, namely the share of temporary workers, the percentage of

¹⁵ See Bassanini and Garnero (2013) and Conti and Sulis (2015) for an application of this two-step estimator.

self-employed and workers educational attainment (the share of medium and low skilled, with high skilled being the omitted category).¹⁶

In columns 1 and 5 we estimate the baseline difference-in-difference specification in equation (1) with OLS, while in columns 2 and 7 we weight each observation (i.e. each country-industry cell) by the (inverse of) average share of country level employment over the period 2004-2007. Indeed, sectoral data might suffer of measurement error, which is likely to be correlated with the dimension of the sector and by using Weighted Least Squares (WLS) we assess the robustness of OLS results.¹⁷ As results displayed in Table 3 show, the interaction between US reallocation and EPRC is negative and statistically significant at the 5% and 1% confidence levels in the case of the entry and exit regressions, respectively. In the case of the entry regression, the coefficient of -0.04 in the OLS regression implies that the difference in entry rates in an industry with high flexibility requirements (i.e. at the 90th percentile of US worker reallocation intensity, with a value of 57.9) and an industry with low flexibility requirements (i.e. at the 10th percentile of the US worker reallocation rate, with a value of 30) is reduced by about 0.9 percentage points in a country at the 90th percentile of EPRC (Italy, with a value of 3.15) compared to a country at the 10th percentile (Norway, with a value of 2.38).¹⁸ In the case of the WLS regression, the differential in entry rates is slightly larger, namely 1.1 percentage points. How important are these effects? The sample cross-country mean difference in entry rates between the industries at the 90th and 10th percentile of worker flexibility requirements is about 9 percentage points: therefore, a differential of about 1 percentage point is equivalent to about 11% of the cross country mean difference, which might not look a particularly strong effect, although some of the next results point towards larger effects.

In the case of the exit rate, the differential in exit rates between the industry with high and low flexibility requirements is reduced by about 1.2 percentage points in a country with high with respect to a country with low values of EPRC, which is a somewhat stronger effect, if we consider that the cross-country mean difference in exit rates between the industries at the 90th and 10th percentile of US reallocation intensity is about 6 percentage points.

In the next columns we probe the robustness of these results along different dimensions. First, we take into account the possibility that EPRC is endogenous. Indeed, it might happen that EPL and entry (exit) rates are jointly determined if a country that specializes in low turnover and reallocation intensity industries is less likely to adopt strict employment protection legislation rules. In order to address the possible endogeneity of EPRC, we follow Bassanini et al (2009) and instrument it with legal origin dummies: in particular, it is expected that countries with a French legal origin are more likely to have adopted stricter employment protection rules with respect to

¹⁶ We use standard errors robust to heteroscedasticity. We also checked that results are robust to using standard errors robust to clustering along both the country and industry dimensions: results are available from the authors upon request. If we drop the country-industry level controls, the magnitude of the OLS results is barely affected, while standard error are just slightly higher.

¹⁷ We have also estimated the baseline regression with a robust regression technique that drops outliers and weight each observations according to absolute residuals and then re-estimates the regression in an iterative process. Estimation results are very similar to these reported in Table 3 and are available from the authors upon request.

¹⁸ In order to ease the interpretation of this result, we can express the differential in entry rates as follows: $D = a * (\text{Real_US_90} - \text{Real_Us_10}) * (\text{EPRC_90} - \text{EPRC_10})$, where a is the coefficient of the interaction between Real_US and EPRC .

countries with a German or Scandinavian legal origin. We report IV results in columns 4 and 9 in Table 3. First stage results, available from the authors upon request, show that in both regressions excluded instruments are statistically significant and with the expected sign; moreover, the Hansen J test statistics rejects at least at the 5% level of confidence the null hypothesis that the excluded instruments are correlated with the error term, while the Kleibergen-Paap rk Wald F statistics does not seem to indicate major signs of a weak instrument problem. As far as the magnitude of the effect of EPRC is concerned, we note that the coefficient of the interaction terms increases (in absolute value) to -0.075 in the entry regression and to -0.089 in the exit regression, respectively. These coefficients suggest that the differential in entry (exit) rates of the industry with high and low flexibility requirements is reduced by about 1.6 (1.9) percentage points in a country with high with respect to a country with low values of employment protection legislation, which is a somewhat larger effect than that found in the case of the OLS regression.

In columns 5 and 10 we tackle another endogeneity issue associated to possible measurement error of *real_US*. As discussed in Section 3, we follow the two-step IV approach proposed by Ciccione and Papaioannou (2010). Regression results seem to suggest the existence of some form of attenuation bias, particularly in the case of the entry regression, which in turn suggests that we can consider the OLS estimates as a sort of conservative lower bound estimate for the differential effect of EPL on entry and exit rates. Indeed, the coefficients reported in columns 5 and 10 suggest that the entry rate differential between the industries with high and low flexibility requirements would be reduced by about 4.9 percentage points in a country with high with respect to a country with low levels of EPRC. This would be indeed a very large effect, given that the cross-country mean difference in entry rates between the industries with high and low flexibility requirements is about 9 percentage points. Although in the case of the exit regression the difference with the OLS results is less striking, the differential in exit rates would grow to about 2.6 percentage points against 1.3 in the OLS regression.

So far, we have assumed a linear relationship between entry (exit) rates and the independent variables; however, the linearity assumption can be problematic when the dependent variable is fractional, i.e. when it takes on values between zero and one.¹⁹ In this case, following Pepke and Wooldridge (1996), we assume that the conditional mean of the entry (exit) rate is a logit function G of the independent variables and we estimate the following Generalized Linear Model: $\text{Entry} = G(\text{real_us} * \text{EPRC} + X'B + u_c + u_s) + v_{sc}$ by quasi-maximum likelihood, where the quasi-likelihood function is the binary choice log-likelihood.²⁰ Regression results reported in columns 3 and 8 suggest that dealing with the fractional response nature of the dependent variable does not seem to matter: indeed the interaction of reallocation with EPRC is negative and statistically significant. Moreover, once we compute the marginal effects of the interaction term, we find values of -0.041 (-0.052) in the case of the entry (exit) rate regressions, very similar to the OLS coefficients reported in columns 1 and 6.

¹⁹ The linearity assumption can be problematic in our case because of the large differences between entry and exit across industries and countries. See Bassanini and Garnero (2013) for a similar observation in the case of workers reallocation rates.

²⁰ See Bassanini and Garnero (2013) and Bassanini and Brunello (2011) for recent empirical applications and Wooldridge (2010) for a theoretical discussion.

Overall, these results suggest that countries with stricter employment protection regulations tend to have lower firms' entry and exit rates, particularly in industries that naturally require more workers' flexibility. While the results for the entry rate confirms those of Aghion et al (2007), the negative impact of EPL on exit rates is, to the best of our knowledge, a novel one. More importantly, our results for the exit rates fit well with the model of Poschke (2009) which predicts a negative effect of EPL on exit, provided that firing costs are levied also on exiting firms. In Poschke's (2009) model, by reducing exit, EPL hampers selection and reduces productivity growth, thereby contributing to undermine the creative destruction process.

4.2 Robustness checks

In this Section, we undertake a series of robustness checks. First, in columns 1 of Tables 4 and 5 we add the share of employment accounted for by each industry in its own country as of 2004 in order to take into account the possibility that the size of the sector plays a role in shaping entry and exit rates. Regression results suggest that this is not the case; moreover, the interaction of `real_US` and `EPRC` is barely altered. In columns 2 of Tables 4 and 5 we consider the role of barriers to entry and exit. In particular, following Andrews and Cingano (2014) we consider in the entry regression the interaction between an indicator of barriers in the product market (defined as the average of the OECD indices of barriers to competition and burden on start-ups) and the US industry level of firms' turnover rates. Indeed, one could argue that barriers in the product market are more likely to display stronger effects in sectors that are naturally characterized by high levels of turnover and the US is in general the country with the most liberalized product market. Similarly, in the case of the exit rate regression, we consider the interaction of turnover rates in the US with an index of the cost of insolvency, as a measure of barriers to exit. Empirical results show that none of them is statistically significant; in turn, the interaction of `real_US` with `EPRC` is negative and statistically significant.

In columns 3 of the two Tables we include the interaction between the US industry level of financial dependency with the country level of financial development, proxied by the ratio of private credit by domestic money banks and GDP (Aghion et al. (2007)). Again, our main results are confirmed, while we do not find any statistically significant effect of financial development.

In the next columns, we explore the possibility that `EPRC` is simply picking up the effect of other country level variables, potentially correlated with `EPRC`, that could affect entry and exit rates particularly in sectors that naturally require more flexibility. In columns 4 we jointly consider the interaction of `real_US` with various labour market variables that have been previously considered as possible confounding factors for EPL, namely union power (measured by union density), the degree of corporatism in the economy, the tax wedge and the gross replacement rate of unemployment benefits. In the case of the entry regressions, we find that the effect of `EPRC` is larger than in the OLS case and that, among the other variables, only the tax wedge seems to matter by reducing entry rates particularly in industries characterized by high flexibility requirements. In turn, in the exit regression we find that union density is associated to higher exit rates in high flexibility requirement sectors, while countries with higher levels of corporatism tend to have lower exit rates. Moreover, we find a slightly smaller effect of EPL, which is also somewhat poorly estimated, with a p value of 0.16.

In columns 5 we include an interaction term between `real_US` and the OECD indicator of barriers in the product market and the costs of insolvency in the entry and exit regression, respectively. Reassuringly, the interaction between EPRC and industry reallocation in the US is always negative and statistically significant; moreover, we find, somewhat counterintuitively, that countries with larger costs of insolvency tend to have higher exit rates in high employment relocation industries.²¹

In the remaining columns, we instead examine whether EPRC continues to display a negative and statistically significant effect when we interact it with other industry characteristics that can be thought to influence entry and exit rates, such as the degree of R&D intensity (column 6), firm turnover intensity (column 7), the growth opportunities in the industry (column 8), physical capital intensity (column 9) and financial dependency (column 10). Reassuringly, we find that the negative effect of the interaction of `US_real` and EPRC is robust, with an order of magnitude very similar to the OLS one.

4.3 Disentangling employment protection legislation

As noted in the data section, the OECD employment protection index that we have been using so far is the weighted average of different legislative provisions related to severance pay, notification procedures, procedural inconveniences, difficulty of dismissals as well as the additional regulations concerning collective versus individual dismissals. Bassanini and Garnero (2013) have found that only some of these provisions matter in shaping the effects of EPL on worker flows; therefore it might be worth trying to disentangle the effects of the main provisions behind the OECD EPRC indicator on firms' entry and exit rates.

We start in columns 1 and 5 of Table 6 by breaking down the OECD EPRC index into its individual (`epr_v1`) and collective (`epc`) regulation components. Empirical results show that both components have a negative and statistically significant effect: this suggests that regulations of collective dismissals do impose an additional burden on firms and that therefore should receive by policymakers at least as much interest as regulations on individual dismissals.

In columns 2 and 6 we break down the individual dismissal index into three components, namely procedural inconveniences (`proc_inc`), notice and severance payments (`not_sev`) and difficulty of dismissals (`diff_dismiss`). Empirical results show that neither procedural inconveniences nor notice and severance payments seem to influence entry and exit rates, while difficulty of dismissal has a negative and statistically significant effect on exit rates and a weakly significant negative effect (the p value is 0.11) on entry rates. Moreover, the indicator for collective dismissals is still negative and statistically significant. If we further disentangle the effect of difficulty of dismissal into its main components (columns 3 and 7), namely definition of unfair dismissal (`reg5`), possibility of reinstatement (`reg8`), compensation for unfair dismissal (`reg7`) and length of trial period (`reg6`), we find that it is only the length of trial period that matters in reducing entry rates, while in the case of exit rates it is the definition of unjust or unfair dismissal that matters. While we should be cautious in our ability to accurately distinguish the effect of these separate provisions on entry and

²¹ In not reported regressions, but available from the authors upon requests, we have controlled for interactions between `real_US` and country per capita GDP, the ICGR index of the quality of institutions and the degree of openness to trade. Our main results are confirmed.

exit rates, our results suggest it might be important for policymakers to focus on the difficulty of dismissal as perhaps the main element of EPL that impose a significant burden on firms.

Finally, in columns 4 and 8 we assess the robustness of previous results by using a different EPL indicator, namely the hiring and firing regulation index of the Economic Freedom of the World database: reassuringly, we find that yet again a more regulated labour market is associated to lower entry and exit rates particularly in industries with more labour flexibility requirements.

4.4 Firm size

Our results so far suggest that EPL might indeed deter firms' entry and exit; however, it is possible that the effect we have found masks some heterogeneity along the firm-size dimension. Indeed, it might be the case that firms react to the burden imposed by EPL either reducing entry (and exit) or by entering in the market with a larger scale in order to spreading the fixed costs component of EPL on a larger capital base. By way of contrasts, in some countries some regulations are imposed only on large firms, therefore EPL might reduce firm turnover particularly in the case of large firms. While it would be interesting to be able to split the sample into many different size classes, sample size considerations allow us a meaningful split into two size classes only, namely 1-9 employees and 10 plus employees: nevertheless, our data, as well as these of Klapper et al (2006), suggest that in most countries and industries the bulk of entering firms falls into the 1-9 category.

In Tables 7 and 8 we report the baseline regressions for both entry and exit rates. Regression results for the 1-9 category suggest that EPRC has a negative and statistically significant effect on both entry and exit rates: interestingly, the magnitude of the effect is, especially in the case of entry rates, substantially larger than in the whole sample, suggesting that EPL tends to reduce firm turnover particularly in the case of small firms.²² This fits quite well with previous literature, which has highlighted how firms in the US tend to enter on a smaller scale than in the case of most continental European countries. Regression results in Table 8 show that in the case of larger firms, EPL does not seem to have a sizeable impact on both entry and exit rates. Only when we apply the benchmarking bias approach of Ciccone and Papaioannou (2010) we find some evidence that EPL might reduce firms turnover, although only in the case of the exit rate it is estimated with enough precision.

In Table 9 and 10 we instead replicate the regressions reported in Table 6. In the case of the 1-9 size class, our main results for the whole sample are broadly confirmed: both individual and collective dismissal seem to matter and difficulty of dismissals is the group of provisions that are likely to matter the most in affecting both entry and exit rates.

By way of contrast, we find some interesting results in the case of the 10 plus category: in particular, there is some empirical evidence that procedural inconveniences, compensation and reinstatement following unfair dismissal reduce entry rates, while notice and severance pay, definition of unfair dismissal and length of trial period raise entry rates. In turn, exit rates are negatively affected by procedural inconveniences and compensation following unfair dismissal,

²² However, the cross country differentials in entry and exit in the sectors with low and high employment reallocation rates are also higher, so that, in relative terms, the effect of EPL is quite similar to that identified in the case of the overall sample.

while they are positively affected by definition of unfair dismissal and reinstatement after unfair dismissal.

It is not easy to explain the contrasting effects that individual features of EPL have on entry and exit rates for firms in the 10 plus size category. In principle, the positive effect of notice and severance pay, the definition of unfair dismissal and the length of trial period on entry rates might be explained by recalling that firms might choose to enter on a larger scale in order to split some of the fixed costs of EPL on a larger capital base (in the US entering and exiting firms are on average smaller than in Europe, as noted by Bartelsman et al (2013) and Bartelsman, Scarpetta and Schvardi (2003)). In turn, the negative effects of both reinstatement provisions might be explained recalling that in some countries (e.g. Italy or France) small firms are exempt from reinstatement (see for instance Garicano et al, 2013) and therefore these provisions negatively matter only in the case of larger firms.

However, it is not immediately clear while the effect of some of those provisions have different effects in the case of the exit rate: on this, more research is needed. Of course, it is possible that the 10 plus category includes too much heterogeneity in firms' dimensions to be able to draw any firm conclusion.

5. Conclusions

In this paper, we have studied the role of employment protection legislation in shaping firms' incentives to enter and exit. Our main empirical result is that both entry and exit rates are reduced by stricter EPL, particularly in industries that are characterized by higher employment reallocation intensity. These results are robust to various robustness checks such as those stemming from reverse causality and measurement error associated to using US data as a proxy of an industry's employment reallocation rates.

We also find that both individual and collective dismissal regulations have negative effects on entry and exit rates and that difficulty of dismissal seems to be the component of EPL most likely to affect firms' turnover. However, we also find that these results are mainly associated to firms in the 1-9 category, the bulk of firms that enter or exit in most countries and industries. In the case of larger firms, EPL does not seem to affect firms' turnover rates: however, this finding seems to be largely explained by the fact that different regulatory provisions have opposite impacts on firms' incentives to enter or exit. This in turn raises an important point in empirical studies that use aggregate indices of EPL, namely that different provisions might have different effects on firms' behaviour and that these differences might be associated to the scale of the firms.

References

1. Acharya, V. V., Baghai, R. P. and Subramanian, K. V. (2010). Labour laws and innovation. NBER working paper series, 16484.
2. Aghion, P., Fally T. and Scarpetta, S. (2007). Credit constraints as a barrier to entry and post-entry growth of firms. *Economic Policy*, 22, 52, 731-779.
3. Aghion P., Bartelsman, E., Perotti, E. and Scarpetta, S. 2008. Barriers to exit, experimentation and comparative advantage. LSE RICAFF2 working paper, 056.

4. Andrew, D. Cingano F. 2014. Public policy and resource allocation: evidence from firms in OECD countries. *Economic Policy*, 253-296.
5. Autor, D., Kerr, W. and Kugler, A. 2007. Does employment protection reduce productivity? Evidence from US States. *The Economic Journal* 117,F189–F217.
6. Bartelsman E., Scarpetta S. and Schivardi F. 2005. Comparative analysis of firm demographics and survival: evidence from micro-level sources in OECD countries. *Industrial and Corporate Change*, 14, 3, 365-391.
7. Bartelsman E. Haltiwanger J and Scarpetta S. 2013. Cross-country differences in productivity: the role of allocation and selection. *American Economic Review*, 103(1): 305-34.
8. Bartelsman E. Haltiwanger J and Scarpetta S. 2009. Measuring and analysing cross-country differences in firm dynamics. In Dunne, T., Jensen J. and Roberts M. (eds), *Producer Dynamics: new evidence from micro data*. University of Chicago Press.
9. Bassanini, A., Brunello G. 2011. Barriers to entry, deregulation and workplace training: a theoretical model with evidence from Europe. *European Economic Review*, 55, 8, 1152-1176.
10. Bassanini, A., Garnero, A. 2013. Dismissal protection and worker flows in OECD countries: evidence from cross-country/cross-industry data. *Labour Economics* 21, 25–41.
11. Bassanini, A, Nunziata, L. and Venn, D. 2009. Job protection legislation and productivity growth in OECD countries. *Economic Policy* 24, 349–402.
12. Bravo-Biosca, A., C. Criscuolo and C. Menon (2013), “What Drives the Dynamics of Business Growth?”, OECD Science, Technology and Industry Policy Papers, No. 1, , available at <http://dx.doi.org/10.1787/5k486qtttq46-en>
13. Belot, M., Boone, J. and van Ours, J. 2007. Welfare-improving employment protection. *Economica* 74, 381–396.
14. Bertola, G., 1994. Flexibility, investment, and growth. *Journal of Monetary Economics* 34 (2), 215–238.
15. Caves, R.E. (1998). Industrial organization and new findings on the turnover and mobility of firms. *Journal of Economic Literature*, 36(4), 1947-82.
16. Ciccone, A., Papaioannou, E. 2007. Red tape and delayed entry. *Journal of the European Economic Association*, 5(2-3), 444-458.
17. Ciccone, A., Papaioannou, E. 2010. Estimating Cross-Industry Cross-Country Models Using Benchmark Industry Characteristics. University Pompeu Fabra. Mimeo.
18. Cingano,F., Leonardi, M., Messina,J. and Pica,G. 2010. The effects of employment protection legislation and financial market imperfections on investment: evidence from a firm-level panel of EU countries. *Economic Policy*, 25 ,117–163.
19. Conti, M., Sulis, G. 2015. Human capital, employment protection and growth in Europe. *Journal of Comparative Economics*, <http://dx.doi.org/10.1016/j.jce.2015.01.007>, in press.
20. Da Rin, M., Sembenelli A. and Di Giacomo M. (2011). Entrepreneurship, firm entry and the taxation of corporate income: evidence from Europe. *Journal of Public Economics*, 95, 1048-1066.
21. Eurostat (2007) Eurostat-OECD Manual on Business Demography Statistics, OECD, Paris.
22. Foster L., Haltiwanger J and Krizan C.J. (2001). Aggregate productivity growth. Lessons from microeconomic evidence. In Hulten C., Dean E. and Harper M. (eds), *New developments in productivity analysis*, University of Chicago Press.

23. Foster, L., Haltiwanger, J. and Krizan, C.J. 2006, Market selection, reallocation and restructuring in the U.S. retail trade sector in the 1990s. *The Review of Economics and Statistics*, 88(4), pp. 748-758.
24. Foster, L, Haltiwanger J. and Syverson, C. 2008. Reallocation, Firm Turnover, and Efficiency: Selection on Productivity or Profitability? *American Economic Review*, 98: 394-425.
25. Garicano L., LeLarge C. and Van Reenen, J. (2013). Firm size distortions and the productivity distribution: evidence from France. NBER Working Paper, 18841.
26. Haltiwanger J. Scarpetta, S. and Schweiger, H. (2014). Cross country differences in job reallocation: the role of industry, firm size and regulations. *Labour Economics*, 26, 11-25.
27. Hsieh C. and Klenow P. (2009). Misallocation and Manufacturing TFP in China and India. *The Quarterly Journal of Economics*, CXXIV, 4.
28. Klapper, L., Laeven, L. and Rajan R. 2006. Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics*, 82, 591-629.
29. Kneller R. and Macgowan D. (2012) Tax Policy and Firm Entry and Exit Dynamics: Evidence from OECD Countries, Bangor Business School Research Paper No. 12/006, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2103056##
30. Koeniger W., Prat, J. (2007). Employment protection, product market regulation and firm selection. *The Economic Journal*, 117, F302-F332.
31. Kugler A. Pica G. 2008. Effects of employment protection on worker and job flows: evidence from a 1990's Italian reform. *Labour Economics*, 15, 78-95.
32. Martin J.P., Scarpetta S. 2012. Setting it right: employment protection, labour reallocation and productivity. *De Economist*, 160, 89-116.
33. Papke, L.E., Wooldridge, J.M., 1996. Econometric methods for fractional response variables with an application to 401(k) plan participation rates. *Journal of Applied Econometrics*, 11, 619-632.
34. Poschke, Markus, 2009. Employment protection, firm selection, and growth. *Journal of Monetary Economics*, 56 (8), 1074–1085.
35. Rajan, R., Zingales, L., 1998. Financial dependence and growth. *American Economic Review* 88 (3), 559-586.
36. Restuccia, D., Rogerson, R. 2008. Policy distortions and aggregate productivity with heterogeneous establishments. *Review of Economic Dynamics* 11(4),707–720
37. Samaniego R. (2006). Do firing costs affect the incidence of firm bankruptcy? *Macroeconomic Dynamics*, 10, 467-501.
38. Samaniego R. (2010). Entry, exit and investment specific technical change. *American Economic Review*, 100: 1, 164-192.
39. Scarpetta, S., Hemmings, P., Tressel, T. and Jaejoon W. 2002. The role of policy and institutions for productivity and firm dynamics. *OECD Working Papers*, 329.

Table 1. Descriptive Statistics, Sector Level. Total and by Size

Sector code ISIC	All after regressions				Size 1-9 after regressions				Size 10 Plus after regressions				
Rev 3	obs	mean en	obs	mean ex	real_US	obs	mean en	obs	mean ex	obs	mean en	obs	mean ex
15_16	13	5.7	12	6.45	39.22	12	7.94	12	8.63	12	1.49	12	2.21
17_18	12	7.23	11	10.08	41.87	12	9.13	11	12.86	12	1.9	11	3.51
21_22	13	7.06	12	7.41	34.37	11	9.51	11	9.75	11	1.57	11	2.56
27_28	13	7.18	12	6.19	32.43	13	9.55	12	7.98	13	1.7	12	1.92
30_33	13	6.41	12	6.67	31.61	12	8.76	11	8.85	12	1.35	11	1.97
34_35	12	6.63	11	5.6	27.64	12	10.55	11	8.66	11	1.53	10	1.85
36_37	13	6.8	12	7.36	45.21	12	8.48	12	9.25	11	1.51	11	2.38
40	10	9.04	5	4.22	15.51	8	14.34	4	6.45	8	1.73	3	2.94
41	10	5.53	5	3.11	15.51	8	9.02	5	5.73	9	1.42	4	3.5
45	13	11.44	12	9.24	57.3	13	13.15	12	10.42	13	2.61	12	3.1
50	12	7.36	11	6.44	57.89	12	8.46	11	7.31	12	1.44	11	1.71
51	12	9.1	11	7.93	38.04	12	10.66	11	9.22	12	1.43	11	1.76
52	13	9.55	12	9.11	62.64	13	10.4	12	9.94	13	2.06	12	2.22
55	13	11.66	12	10.66	85.87	13	12.81	12	11.69	13	3.15	12	2.8
60	13	9.43	12	8.5	41.17	13	10.99	12	9.78	13	1.71	12	2.33
61	13	10.3	11	9.75	41.17	12	12.67	10	12.33	13	2.44	10	2.54
62	13	9.56	11	8.18	41.17	11	14.09	10	13.09	11	1.9	11	2.04
63	13	9.6	12	7.22	41.17	13	11.71	12	8.73	12	2.42	12	2.33
64	12	16.5	11	12.83	30.09	12	20.41	10	15.94	12	3.14	10	3.46
65	13	10.64	12	6.47	39.35	12	14.59	11	9.5	12	2.07	11	2.27
66	13	5.97	12	4.67	39.35	11	11.85	10	9.88	12	2.14	11	1.2
67	13	12.76	12	9.91	39.35	13	13.85	11	11.3	13	2.73	11	3.21
70	8	13.79	7	9.36	45.91	7	15.99	6	10.83	7	3.66	6	4.8
71	13	12.11	12	9.91	43.14	12	14.2	11	11.69	13	2.41	12	2.64
72	13	13.37	12	9.57	43.14	12	15.24	12	10.65	13	2.24	12	2.16
73	13	15.27	12	11.08	43.14	12	20.61	11	14.56	12	1.93	10	1.93
74	10	15.39	7	10.32	43.14	2	14.2	2	9.88	2	3.96	1	2.36

Notes: Descriptive statistics have been calculated on the sample used in baseline regressions (Tables 3, 7, 8, col. 1). For ISIC Rev 3 labels of sector codes see <http://www.oecd.org/sti/ind/40729523.pdf>. Definitions: mean en is birth rate of employer enterprises, mean ex is death rate of employer enterprises; real_US (real_BG_US) is directly taken from Bassanini and Garnerò (2013), and it is the average level of sectoral worker reallocation over the period 2004-2007. See Section 2 for more details.

Table 2. Country Level Variables. Entry and Exit rates and EPL, by size

Used for regressions					
Country					
ISO3	N(b_r_empl)	mean(b_r_~l)	N(d_r_empl)	mean(d_r_~l)	mean(eprc~2)
AUT	27	8.11	27	7.64	2.62
BEL	24	3.98	22	2.69	2.76
CZE	26	8.92	24	8.1	2.92
DNK	26	10.21	26	10.89	2.45
ESP	27	10.2	27	7.54	2.76
FIN	27	9.95	24	8.57	2.08
HUN	22	13.12	20	11.4	2.4
ITA	27	10.49	27	7.78	3.15
NLD	27	11.55	25	8.51	2.92
NOR	24	6.75	24	4.43	2.38
PRT	24	13.1	24	13.94	3.98
SVK	24	10.77	23	7.13	2.66
SWE	27	9.99	0		2.58
Size 1-9 after regressions					
Country					
ISO3	N(b_r_empl)	mean(b_r_~l)	N(d_r_empl)	mean(d_r_~l)	mean(eprc~2)
AUT	27	10.13	27	9.59	2.62
BEL	18	4.38	14	2.58	2.76
CZE	25	12.24	25	11.08	2.92
DNK	26	13.37	26	13.55	2.45
ESP	21	11.65	20	9.18	2.76
FIN	27	12.46	25	9.8	2.08
HUN	21	15.16	19	13.16	2.4
ITA	26	13.38	25	9.65	3.15
NLD	26	14.91	24	11.78	2.92
NOR	24	9.21	24	5.95	2.38
PRT	23	15.52	23	16.4	3.98
SVK	23	12.58	23	8.27	2.66
SWE	18	12.28	0		2.58
Size 10 Plus after regressions					
Country					
ISO3	N(b_r_empl)	mean(b_r_~l)	N(d_r_empl)	mean(d_r_~l)	mean(eprc~2)
AUT	27	1.82	27	1.44	2.62
BEL	18	0.66	15	0.61	2.76
CZE	25	2.42	23	1.83	2.92
DNK	26	2.2	26	4.55	2.45
ESP	22	2.31	19	2.5	2.76
FIN	27	1.82	24	3.63	2.08
HUN	21	2.46	19	3.17	2.4
ITA	26	1.84	25	1.56	3.15
NLD	26	2.64	24	2.45	2.92
NOR	24	1.51	24	0.89	2.38
PRT	23	2.11	23	2.43	3.98
SVK	23	4.03	23	3.6	2.66
SWE	19	0.67	0		2.58

Notes: Descriptive statistics have been calculated on the sample used in baseline regressions (Tables 3, 7, 8, col. 1). Definitions: eprc_v2 is the OECD indicator calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals. See Section 2 for more details.

Table 3. Baseline Regression

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	-9	-10
VARIABLES	b_r_empl	b_r_empl	b_r_empl_2	b_r_empl	b_r_empl	d_r_empl	d_r_empl	d_r_empl_2	d_r_empl	d_r_empl
	OLS	Weights	GLM	IV	Ben. Bias	OLS	Weights	GLM	IV	Ben. Bias
real_eprc_v2	-0.0403** (0.0199)	-0.0502** (0.0216)	-0.00484** (0.00202)	-0.0747* (0.0427)	-0.231** (0.0936)	-0.0607*** (0.0196)	-0.0524*** (0.0174)	-0.00723*** (0.00167)	-0.0889*** (0.0292)	-0.122*** (0.0351)
shself_BG	0.0144 (0.0326)	0.0243 (0.0379)	0.00154 (0.00350)	0.0247 (0.0327)	0.103* (0.0550)	0.00453 (0.0231)	-0.0160 (0.0215)	0.000921 (0.00290)	0.0137 (0.0223)	0.0166 (0.0251)
sedum_BG	-0.00133 (0.0426)	-0.0637 (0.0465)	1.81e-05 (0.00454)	-0.00554 (0.0393)	-0.109** (0.0515)	0.0387 (0.0284)	0.00543 (0.0256)	0.00580* (0.00331)	0.0349 (0.0261)	-0.0147 (0.0245)
sedul_BG	0.00502 (0.0398)	-0.0332 (0.0378)	0.00272 (0.00416)	0.00476 (0.0372)	-0.0442 (0.0347)	0.0403 (0.0315)	0.0190 (0.0293)	0.00716** (0.00324)	0.0394 (0.0288)	0.0121 (0.0262)
shtemp2_BG	0.114* (0.0684)	0.0712* (0.0430)	0.00846 (0.00586)	0.119* (0.0640)	0.113*** (0.0395)	0.120** (0.0551)	0.0476* (0.0283)	0.0114** (0.00478)	0.125** (0.0512)	0.0680** (0.0283)
country dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Constant	16.85** (6.956)	24.78*** (6.438)	-1.595*** (0.429)	19.90*** (0.119*)	34.16*** (11.76)	2.026 (0.120**)	20.54*** (0.0476*)	-2.051*** (0.288)	15.10*** (0.125**)	18.11*** (4.496)
Observations	332	328	332	332	328	293	293	293	293	293
R-squared	0.602	0.702		0.601	0.633	0.732	0.823		0.730	0.807
Robust standard errors in parentheses										
*** p<0.01, ** p<0.05, * p<0.1										

Note: dependent variable in columns 1-5 (6-10) is birth (death) rate of employer enterprises over the period 2004-2007. Real (real_BG_US) is sectoral US worker reallocation and it is taken from Bassanini and Garnero (2013). EPRC_v2 is the OECD indicator, it is calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals and additional provisions for collective dismissals. Other controls are the country-industry share of self-employed (shself_BG), share of medium educated (sedum_BG), share of low educated (sedul_BG) and the share of temporary contracts (shtemp2_BG). The above are taken from Bassanini and Garnero (2013) and are calculated as average values over the period 2004-2007. Country and industry dummies included. In cols. 1 and 6 estimation method is OLS; in cols. 2 and 7, weights are share of employment in 2004; in cols. 3 and 8 estimation is GLM; in cols. 4 and 9 instruments are legal origins, and are taken from Bassanini et al (2009); in cols. 5 and 10, estimation method is two-step IV estimator proposed by Ciccone and Papaioannou (2011).

Table 4. Robustness. Dep. Var. Birth Rate of Employer Enterprises. Industry and Country Level Controls.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	b_r_empl	b_r_empl	b_r_empl	b_r_empl	b_r_empl	b_r_empl	b_r_empl	b_r_empl	b_r_empl	b_r_empl
real_eprc_v2	-0.0441** (0.0200)	-0.0406** (0.0202)	-0.0399* (0.0224)	-0.0678* (0.0368)	-0.0439** (0.0218)	-0.0418* (0.0232)	-0.0510* (0.0287)	-0.0489** (0.0244)	-0.0483** (0.0221)	-0.0406** (0.0196)
real_tw				-0.00521** (0.00246)						
real_corp				-0.00550 (0.0279)						
real_ud				-0.000275 (0.000990)						
real_gr				0.000933 (0.00147)						
esht_04	-0.00813 (0.204)									
turnover_bte		0.0140 (0.104)								
fin_int_fin_dev			-0.00112 (0.0235)							
real_res_insol					0.000841 (0.00173)					
rdva_eprc_v2						6.601 (4.440)				
turnover_US_eprc_v2							0.0692 (0.128)			
fteng_US_eprc_v2								14.97 (35.68)		
cap_int_eprc_v2									0.241 (0.344)	
fin_dep_eprc_v2										-4.928*** (1.750)
controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
country dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Constant	9.928*** (3.514)	16.15* (8.605)	16.72** (7.904)	12.45** (4.879)	16.49** (7.086)	21.53*** (6.473)	13.76* (8.006)	18.29*** (6.100)	14.22 (9.292)	17.22** (6.878)
Observations	301	332	332	305	332	306	332	332	319	332
R-squared	0.694	0.602	0.602	0.628	0.602	0.640	0.603	0.603	0.647	0.628
Robust standard errors in										
*** p<0.01, ** p<0.05, * p										

Notes: Real is sectoral US worker reallocation (real_BG_US); EPRC_v2 is calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals and additional provisions for collective dismissals. Controls are the country-industry share of self-employed (shself_BG), share of medium educated (sedum_BG), share of low educated (sedul_BG) and the share of temporary contracts (shtemp2_BG). Other controls: the share of employment in total economy in 2004 for each country-industry pair (esht_04), the turnover rate in the US calculated as the sum of entry and exit rates (turnover_US), a measure of financial development (financialdependency), a measure of R&D intensity over value added (rdva), the average growth rate 93_03 full-time equivalents in the US (fteng_US) and a measure of capital intensity (capitalintensity). These variables have been interacted with country level variables: indices of burden on start-ups e barriers to competition (bte); a measure of financial development (fin_dev); a measure of costs for resolving insolvency (res_insol); a set of controls for other labour market institutions: union density (tud_BG), a measure of corporatism (corp), the tax wedge (twcou2_BG), and the gross replacement rate for unemployment benefits (grr_BG).

Table 5. Robustness. Dep. Var. Death Rate of Employer Enterprises. Industry and Country Level Controls.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	d_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl
real_eprc_v2	-0.0753*** (0.0199)	-0.0611*** (0.0195)	-0.0533*** (0.0201)	-0.0395 (0.0284)	-0.0703*** (0.0190)	-0.0498** (0.0218)	-0.0729*** (0.0260)	-0.0742*** (0.0212)	-0.0672*** (0.0198)	-0.0621*** (0.0192)
real_tw				0.000996 (0.00186)						
real_corp				-0.0483** (0.0212)						
real_ud				0.00140** (0.000685)						
real_gr				-0.000241 (0.00147)						
esht_04	0.0993 (0.116)									
turnover_bte		0.0145 (0.0657)								
fin_int_fin_dev			-0.0192 (0.0134)							
real_res_insolv					0.00228* (0.00131)					
rdva_eprc_v2						11.33** (5.540)				
turnover_US_eprc_v2							0.0846 (0.125)			
fteng_US_eprc_v2								26.31 (23.22)		
cap_int_eprc_v2									0.0292 (0.240)	
fin_dep_eprc_v2										-2.483** (1.117)
controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
country dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Constant	8.910*** (2.644)	1.621 (3.054)	0.539 (2.667)	2.654 (3.305)	0.947 (2.479)	3.947* (2.210)	0.178 (3.650)	4.171 (2.573)	21.48*** (5.176)	1.607 (2.410)
Observations	276	293	293	268	293	269	293	293	281	293
R-squared	0.755	0.732	0.737	0.750	0.734	0.781	0.732	0.734	0.779	0.742
Robust standard errors in parentheses										
*** p<0.01, ** p<0.05, * p<0.1										

Notes: Real is sectoral US worker reallocation (real_BG_US); EPRC_v2 is calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals and additional provisions for collective dismissals. Controls are the country-industry share of self-employed (shself_BG), share of medium educated (sedum_BG), share of low educated (sedul_BG) and the share of temporary contracts (shtemp2_BG). Other controls: the share of employment in total economy in 2004 for each country-industry pair (esht_04), the turnover rate in the US calculated as the sum of entry and exit rates (turnover_US), a measure of financial development (financialdependency), a measure of R&D intensity over value added (rdva), the average growth rate 93_03 full-time equivalents in the US (fteng_US) and a measure of capital intensity (capitalintensity). These variables have been interacted with country level variables: indices of burden on start-ups e barriers to competition (bte); a measure of financial development (fin_dev); a measure of costs for resolving insolvency (res_insolv); a set of controls for other labour market institutions: union density (tud_BG), a measure of corporatism (corp), the tax wedge (twcou2_BG), and the gross replacement rate for unemployment benefits (grr_BG).

Table 6. Robustness. Different EPL indicators

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	b_r_empl	b_r_empl	b_r_empl	b_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl
real_proc_inc		-0.0292 (0.0209)	-0.0335 (0.0224)			-0.0178 (0.0134)	-0.00666 (0.0143)	
real_not_sev_pay		0.0105 (0.00963)	0.00743 (0.0103)			-0.00460 (0.00827)	-0.00904 (0.00928)	
real_reg5			-0.00253 (0.00908)				-0.0248*** (0.00636)	
real_reg6			-0.0277* (0.0147)				-0.00880 (0.00891)	
real_reg7			-0.0152 (0.0127)				0.0104 (0.00914)	
real_reg8			0.000710 (0.00522)				-0.000280 (0.00363)	
real_epc	-0.0195* (0.0114)	-0.0364** (0.0168)	-0.0358** (0.0174)		-0.0262** (0.0104)	-0.0334*** (0.0121)	-0.0431*** (0.0130)	
real_diff_dismiss		-0.0209 (0.0131)				-0.0235** (0.00952)		
real_epr_v1	-0.0265* (0.0145)				-0.0416*** (0.0150)			
real_hir_fir_reg				-0.0212** (0.00858)				-0.0209*** (0.00570)
controls	yes	yes	yes	yes	yes	yes	yes	yes
country dummies	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes
Constant	18.41** (7.108)	29.14*** (10.66)	37.56*** (11.64)	-1.053 (5.406)	2.330 (2.390)	5.166* (2.834)	4.458 (2.911)	-1.462 (2.197)
Observations	332	332	332	332	293	293	293	293
R-squared	0.603	0.606	0.609	0.606	0.732	0.734	0.739	0.734
Robust standard erro								
*** p<0.01, ** p<0.05								

Notes. dependent variable in columns 1-4 (5-8) is the average birth (death) rate of employer enterprises over the period 2004-2007. Controls and other main variables are defined in Table 3. Real (real_BG_US) is sectoral US worker reallocation. For more details on different items of employment protection legislation indicator see <http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>. See also section 4.3 in the paper. In cols. 4 and 8, EPL index is from Economic Freedom of the World database.

Table 7. Baseline Regressions. Firm Size 1-9 employees

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	-9	-10
VARIABLES	b_r_empl	b_r_empl	b_r_empl_2	b_r_empl	b_r_empl	d_r_empl	d_r_empl	d_r_empl_2	d_r_empl	d_r_empl
	OLS	Weights	GLM	IV	Ben. Bias	OLS	Weights	GLM	IV	Ben. Bias
real_eprc_v2	-0.0718** (0.0318)	-0.0505** (0.0237)	-0.00624** (0.00272)	-0.185*** (0.0682)	-0.342*** (0.126)	-0.0849*** (0.0204)	-0.0621*** (0.0187)	-0.00783*** (0.00157)	-0.0954*** (0.0293)	-0.136*** (0.0384)
shself_BG	0.00531 (0.0390)	0.0249 (0.0317)	-0.000186 (0.00350)	0.0415 (0.0435)	0.170** (0.0717)	-0.00775 (0.0286)	-0.0253 (0.0212)	-0.00129 (0.00303)	-0.00426 (0.0275)	0.0127 (0.0265)
sedum_BG	0.0256 (0.0523)	-0.00602 (0.0346)	0.00239 (0.00473)	0.00967 (0.0482)	-0.0906* (0.0494)	0.0547 (0.0338)	0.00438 (0.0240)	0.00625* (0.00351)	0.0532* (0.0311)	-0.0190 (0.0240)
sedul_BG	-0.00760 (0.0543)	-0.00288 (0.0408)	0.00127 (0.00470)	-0.00948 (0.0509)	-0.0267 (0.0413)	0.0404 (0.0347)	0.0212 (0.0268)	0.00564* (0.00332)	0.0400 (0.0318)	0.0129 (0.0239)
shtemp2_BG	0.116 (0.0797)	0.0698** (0.0354)	0.00814 (0.00610)	0.131* (0.0742)	0.153*** (0.0475)	0.0747 (0.0532)	0.0242 (0.0271)	0.00562 (0.00436)	0.0768 (0.0492)	0.0519** (0.0258)
country dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	305	301	305	305	301	275	275	275	275	275
R-squared	0.587	0.728		0.575	0.527	0.708	0.827		0.707	0.810
Robust standard errors in p										
*** p<0.01, ** p<0.05, * p<										

Note: dependent variable in columns 1-5 (6-10) is the average birth (death) rate of employer enterprises over the period 2004-2007. Real is sectoral US worker reallocation and it is taken from Bassanini and Garnero (2013). EPRC_v2 is the OECD indicator, it is calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals and additional provisions for collective dismissals. Other controls are the country-industry share of self-employed (shself_BG), share of medium educated (sedum_BG), share of low educated (sedul_BG) and the share of temporary contracts (shtemp2_BG). The above are taken from Bassanini and Garnero (2013) and are calculated as average values over the period 2004-2007. Country and industry dummies included. In cols. 1 and 6 estimation method is OLS; in cols. 2 and 7, weights are share of employment in 2004; in cols. 3 and 8 estimation is GLM; in cols. 4 and 9 instruments are legal origins, and are taken from Bassanini et al (2009); in cols. 5 and 10, estimation method is two-step IV estimator proposed by Ciccone and Papaioannou (2011).

Table 8. Baseline Regressions. Firm Size 10 Plus employees

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	-9	-10
	b_r_empl	b_r_empl	b_r_empl_2	b_r_empl	b_r_empl	d_r_empl	d_r_empl	d_r_empl_2	d_r_empl	d_r_empl
	OLS	Weights	GLM	IV	Ben. Bias	OLS	Weights	GLM	IV	Ben. Bias
real_eprc_v2	0.00120 (0.00892)	0.00179 (0.00718)	-0.000184 (0.00356)	0.0265 (0.0180)	-0.135 (0.116)	-0.00459 (0.0111)	-0.0114 (0.00931)	-0.00194 (0.00370)	0.00784 (0.0186)	-0.101** (0.0480)
shself_BG	0.00218 (0.0172)	-0.0171 (0.0106)	-0.00302 (0.00806)	-0.00583 (0.0168)	0.0514 (0.0521)	-0.0226 (0.0148)	-0.0325*** (0.0118)	-0.00888 (0.00736)	-0.0267* (0.0143)	0.0146 (0.0253)
sedum_BG	-0.0377** (0.0148)	-0.0331*** (0.0122)	-0.0181** (0.00739)	-0.0342** (0.0136)	-0.0725** (0.0343)	-0.0353* (0.0188)	-0.0337** (0.0141)	-0.0157** (0.00670)	-0.0336** (0.0168)	-0.0606*** (0.0206)
sedul_BG	-0.0146 (0.0145)	-0.0223 (0.0136)	-0.00786 (0.00677)	-0.0142 (0.0134)	-0.0331* (0.0193)	-0.00280 (0.0173)	-0.0122 (0.0156)	-0.00247 (0.00624)	-0.00258 (0.0158)	-0.0204 (0.0173)
shtemp2_BG	0.0671*** (0.0234)	0.0786*** (0.0227)	0.0310*** (0.00699)	0.0637*** (0.0215)	0.118*** (0.0369)	0.0606*** (0.0230)	0.0605*** (0.0126)	0.0205*** (0.00731)	0.0584*** (0.0209)	0.0929*** (0.0177)
country dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	307	303	307	307	303	276	276	276	276	272
R-squared	0.455	0.682		0.448	0.301	0.560	0.720		0.559	0.588
Robust standard errors in parentheses										
*** p<0.01, ** p<0.05, * p<0.1										

Note: dependent variable in columns 1-5 (6-10) is the average birth (death) rate of employer enterprises over the period 2004-2007. Real is sectoral US worker reallocation and it is taken from Bassanini and Garnero (2013). EPRC_v2 is the OECD indicator, it is calculated as the weighted sum of sub-indicators concerning the regulations for individual dismissals and additional provisions for collective dismissals. Other controls are the country-industry share of self-employed (shself_BG), share of medium educated (sedum_BG), share of low educated (sedul_BG) and the share of temporary contracts (shtemp2_BG). The above are taken from Bassanini and Garnero (2013) and are calculated as average values over the period 2004-2007. Country and industry dummies included. In cols. 1 and 6 estimation method is OLS; in cols. 2 and 7, weights are share of employment in 2004; in cols. 3 and 8 estimation is GLM; in cols. 4 and 9 instruments are legal origins, and are taken from Bassanini et al (2009); in cols. 5 and 10, estimation method is two-step IV estimator proposed by Ciccone and Papaioannou (2011).

Table 9. Robustness Regressions. Firm Size 1-9 employees

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	b_r_empl	b_r_empl	b_r_empl	b_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl
real_proc_inc		-0.0483 (0.0396)	-0.0401 (0.0332)			-0.0177 (0.0134)	-0.000721 (0.0170)	
real_not_sev_pay		0.00670 (0.0123)	-0.00240 (0.0128)			-0.0132 (0.00907)	-0.0193* (0.0103)	
real_reg5			-0.00288 (0.0131)				-0.0259*** (0.00839)	
real_reg6			-0.0551** (0.0239)				-0.00854 (0.0114)	
real_reg7			-0.0113 (0.0118)				0.0128 (0.0113)	
real_reg8			0.000830 (0.00755)				-0.00531 (0.00395)	
real_epc	-0.0292** (0.0148)	-0.0500** (0.0243)	-0.0356 (0.0249)		-0.0193 (0.0119)	-0.0231 (0.0145)	-0.0299* (0.0160)	
real_diff_dismiss		-0.0257 (0.0178)				-0.0320*** (0.0108)		
real_epr_v1	-0.0490** (0.0231)				-0.0613*** (0.0152)			
real_hir_fir_reg				-0.0242* (0.0128)				-0.0244*** (0.00740)
controls	yes	yes	yes	yes	yes	yes	yes	yes
country dummies	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes
Constant	12.75** (5.389)	10.86* (6.312)	20.50*** (5.957)	6.962 (4.989)	23.72*** (6.096)	27.05*** (7.698)	25.38*** (8.452)	-0.853 (3.194)
Observations	305	305	305	305	279	279	279	279
R-squared	0.588	0.592	0.599	0.589	0.718	0.719	0.723	0.717
Robust standard errors in parentheses								
*** p<0.01, ** p<0.05, * p<0.1								

Notes. dependent variable in columns 1-4 (5-8) is the average birth (death) rate of employer enterprises over the period 2004-2007. Controls and other main variables are defined in Table 3. Real is sectoral US worker reallocation. For more details on different items of employment protection legislation indicator see the address <http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>. In cols. 4 and 8, EPL index is from Economic Freedom of the World database.

Table 10. Robustness Regressions. Firm Size 10 Plus employees

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	b_r_empl	b_r_empl	b_r_empl	b_r_empl	d_r_empl	d_r_empl	d_r_empl	d_r_empl
real_proc_inc		-0.00821 (0.00682)	-0.0222*** (0.00780)			-0.0273*** (0.00738)	-0.0440*** (0.00984)	
real_not_sev_pay		0.00600 (0.00368)	0.0109*** (0.00353)			-0.000323 (0.00538)	0.00557 (0.00426)	
real_reg5			0.00701** (0.00350)				0.0115* (0.00602)	
real_reg6			0.0118* (0.00691)				0.00788 (0.00830)	
real_reg7			-0.0120*** (0.00286)				-0.0157*** (0.00555)	
real_reg8			-0.00281* (0.00168)				0.00534*** (0.00195)	
real_epc	0.00290 (0.00638)	-0.00243 (0.00696)	-0.00745 (0.00639)		0.000442 (0.00638)	-0.00693 (0.00899)	-0.00976 (0.00689)	
real_diff_dismiss		-0.00235 (0.00608)				0.0128 (0.00890)		
real_epr_v1	0.000189 (0.00606)				-0.00361 (0.00768)			
real_hir_fir_reg				-0.00270 (0.00478)				-0.00755 (0.00604)
controls	yes	yes	yes	yes	yes	yes	yes	yes
country dummies	yes	yes	yes	yes	yes	yes	yes	yes
industry dummies	yes	yes	yes	yes	yes	yes	yes	yes
Constant	3.725*** (1.351)	4.612*** (1.463)	3.986** (1.561)	4.101*** (1.303)	5.106* (2.743)	4.898** (2.341)	4.208* (2.338)	4.610** (1.902)
Observations	307	307	307	307	276	276	276	276
R-squared	0.456	0.459	0.483	0.456	0.560	0.582	0.599	0.566
Robust standard errors in parentheses								
*** p<0.01, ** p<0.05, * p<0.1								

Notes: dependent variable in columns 1-4 (5-8) is the average birth (death) rate of employer enterprises over the period 2004-2007. Controls and other main variables are defined in Table 3. Real is sectoral US worker reallocation. For more details on different items of employment protection legislation indicator see the address <http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>. In cols. 4 and 8, EPL index is from Economic Freedom of the World database.