

DISCUSSION PAPER SERIES

IZA DP No. 16747

**Employment Protection Legislation and
Job Reallocation across Sectors, Firms
and Workers: A Survey**

Pierre Cahuc
Marco G. Palladino

JANUARY 2024

DISCUSSION PAPER SERIES

IZA DP No. 16747

Employment Protection Legislation and Job Reallocation across Sectors, Firms and Workers: A Survey

Pierre Cahuc

Sciences Po, IZA and CEPR

Marco G. Palladino

Banque de France

JANUARY 2024

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

Employment Protection Legislation and Job Reallocation across Sectors, Firms and Workers: A Survey*

This paper provides a review of the existing literature on the effects of employment protection legislation (EPL) on job allocation across industries, firms, and workers, and its implications for innovation and economic growth. We analyze empirical studies to assess how EPL influences resource allocation, firm dynamics, and labor market segmentation. The review highlights the heterogeneous effects of EPL on different firms and workers' groups. Additionally, we discuss the channels identified in the structural literature through which EPL-induced job reallocation affects productivity, innovation, and overall growth. While existing evidence demonstrates the significant influence of EPL on all these outcomes, further quantification of these effects remains a research challenge.

JEL Classification: J08, J23, O47, O31

Keywords: job protection, job allocation, economic growth, productivity, innovation

Corresponding author:

Pierre Cahuc
Department of Economics
Sciences Po
28 rue des Saints-Pères
75007
Paris
France
E-mail: pierre.cahuc@sciencespo.fr

* We thank Stéphane Carcillo and Stefano Scarpetta for their useful comments. We are sole responsible for any mistakes.

1 Introduction

The *raison d'être* of regulations governing the hiring and firing of workers is rooted in ensuring fairness, equity and efficiency in the employment sector. These regulations are designed to balance the power dynamics between employers and employees, protecting the rights and interests of both parties. They protect workers from arbitrary and unjust termination. They contribute to safeguard workers' rights to fair treatment, equality, and dignity in the workplace. By ensuring job security and fair hiring practices, these regulations can improve worker productivity, job satisfaction, reduce anxiety and stress associated with arbitrary job loss. They protect employers by providing clear guidelines on lawful termination and hiring processes, reducing the risk of legal issues and enhancing workforce management. By limiting layoffs, they also limit their cost to society, particularly in the form of unemployment compensation and social transfers, which are not taken into account by employers when they decide to lay off their employees.

However, there are cons to employment protection legislation (EPL). They can limit the flexibility of employers in managing their workforce, especially in cases of economic downturns or organizational restructuring. Compliance with these regulations can impose administrative burdens on companies, leading to increased operational costs detrimental to employment. Stringent regulations can make employers reluctant to hire new employees, impacting job creation, the reallocation of workers across firms and economic growth. The negative consequences of employment protection become more pronounced when such protection leads to a strong segmentation of the labor market, between highly protected permanent jobs and very flexible temporary jobs. In this situation, a portion of the workforce is confined to highly unstable jobs while another part enjoys stable employment, which can have low productivity. The reallocation of workers to the most productive jobs can then become very problematic, as companies are required to retain low-productive job positions and are hesitant to create new potentially productive stable jobs, due to the adjustment costs of permanent employment positions. Moreover, the labor market segmentation induced by EPL can contribute to inequality by disproportionately impacting vulnerable populations. For instance, newcomers to the job market, who are more often

young people, women, or immigrants, face even greater difficulty in securing stable employment with good working conditions, if the labor market is strongly segmented between more or less protected jobs.

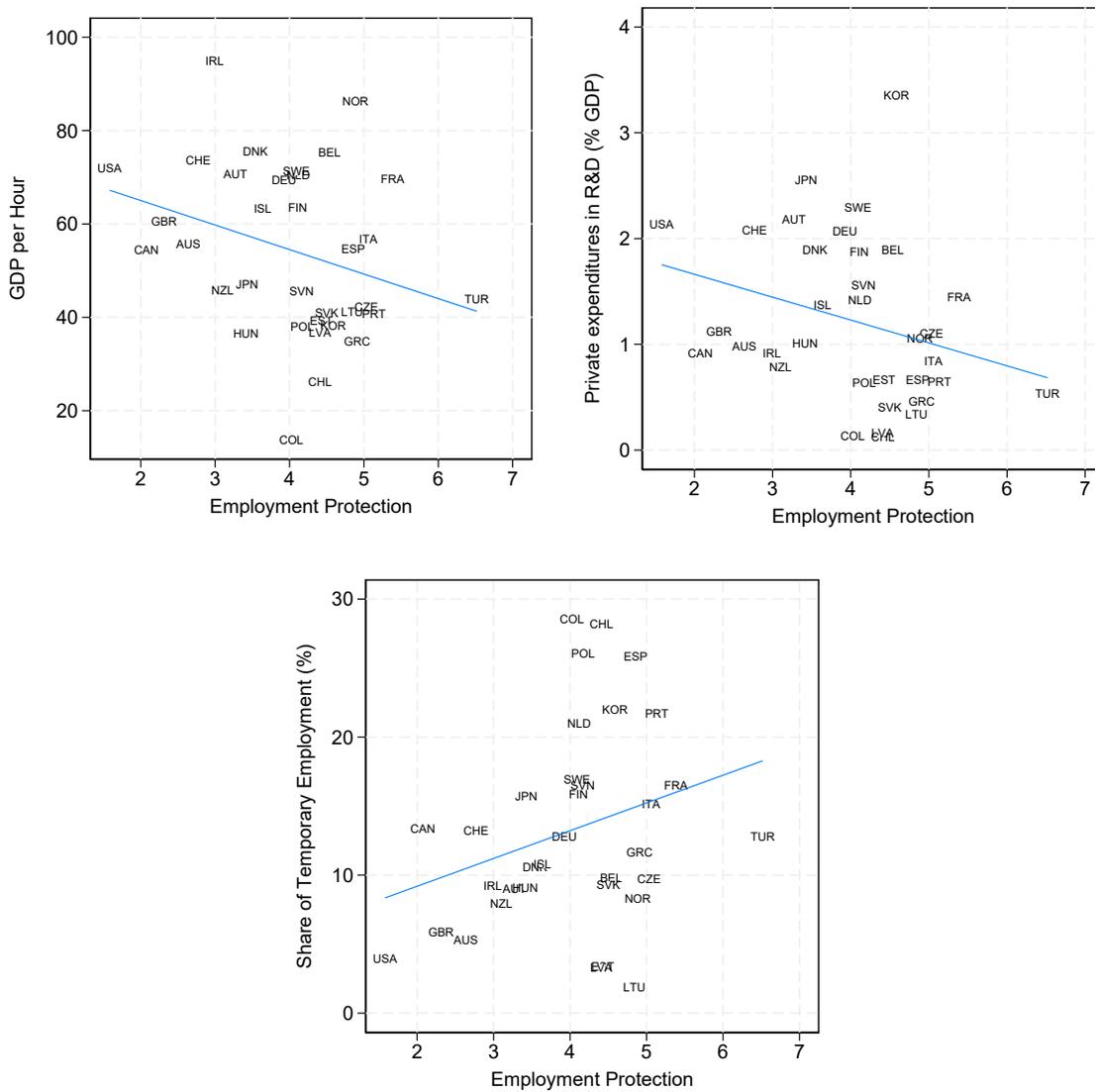
Accordingly, the debate on EPL is not about whether or not to regulate, but about what kind of regulation (permanent vs. temporary, experience rating, job retention schemes, etc.) and how to strike the right balance between protecting workers and allowing firms to adapt to changing economic conditions and technological progress. To shed light on this issue, this paper focuses on the relationship between EPL, job reallocation across sectors, firms and workers, innovation, and aggregate growth. In Figure 1, we plot some cross-country evidence on these relationships using a series of graphs, where we show how the degree of employment protection is negatively correlated with GDP per hour and expenditures in innovation, while positively correlated with the share of temporary employment, which is an indicator of labor market segmentation.

This paper presents the results of recent research that may help to interpret these correlations. It shows that there is ample empirical evidence indicating that EPL affects the allocation of resources among industries, existing firms, and different groups of workers, as well as the intensity of firm creation and destruction. The impact of EPL on job reallocation has implications for productivity, as it affects the movement of jobs from low-productivity to high-productivity industries and firms. Empirical studies have found that EPL-induced job reallocation decreases total factor productivity and leads to changes in input choices. Assessing the extent of labor misallocation is important to understand the impact of EPL though. Measures of misallocation rely on the dispersion of marginal productivity among firms, but there are challenges in accurately measuring this dispersion, such as the choice of functional form and the presence of measurement errors. General equilibrium models consider the behavior of heterogeneous firms to assess the impact of EPL on aggregate productivity. These models suggest that firing costs reduce steady-state productivity and have a greater impact on dynamic misallocation than static misallocation. Furthermore, EPL can influence innovation and growth by affecting the entry and exit of firms. Entrants experience decreased innovation due to firing costs and labor misallocation, while larger incumbent firms are incentivized to invest more in research and development under more

stringent EPL. The impact of EPL on innovation varies depending on whether it affects entrants or incumbents more, leading to opposing effects on overall growth.

The rest of the paper is organized as follows. Section 2 focuses on job reallocation across sectors, while Section 3 examines job reallocation across firms and its impact on firm-level productivity, misallocation of labor, aggregate productivity, innovation, and growth. Section 4 discusses job reallocation between worker types, with a focus on labor market segmentation and the impact on inequality. Section 5 concludes.

Figure 1: EPL, Productivity, Innovation and Temporary Employment across OECD countries



Notes: Employment Protection is the sum of the OECD strictness of employment protection legislation indicators for permanent and temporary contracts; GDP per Hour comes from The OECD Productivity Database; private expenditures in RD are taken from the OECD Main Science and Technology Indicators Database; the share of temporary employment (as a % of dependent employment) comes from OECD Labour Force Statistics. All country-specific values are averages over the period 2014-2019.

2 Job Reallocation across Sectors

Empirical studies of the impact of EPL at the sectoral level have documented its effects on the allocation of jobs between sectors and its consequences on productivity.

2.1 The allocation of jobs

Empirical studies, such as [Bassanini and Garnero \(2013\)](#) and [ElFayoumi \(2020\)](#), examine the effect of labor market regulations on reallocation across industries by exploiting comparable cross-country information.

[Bassanini and Garnero \(2013\)](#) analyze hiring and separation rates by the type of transition for 24 OECD countries and 23 business-sector industries. They investigate whether dismissal regulations affect where labor resources are reallocated, specifically focusing on job-to-job transitions within the same industry, job-to-job transitions across industries, and transitions from employment to non-employment. The authors employ econometric techniques to analyze the data, controlling for various confounding factors, such as industry and country-level characteristics, and accounting for endogeneity issues that may arise in the analysis. They find that more restrictive regulations reduce job-to-job transitions within the same industry, especially for permanent jobs. [ElFayoumi \(2020\)](#) discusses the persistent productivity gap between countries at different income levels and the factors that influence it by making use of a panel of 44 countries covering developed, emerging, and frontier economies. The author uses a dynamic panel error correction model to estimate the level of policy distortions or institutional costs that restrict the fluidity of labor reallocation. He finds a significant positive association between the pace of labor reallocation across sectors and the freedom level of labor market regulations.

These two studies provide evidence that labor market regulations affect the fluidity of labor reallocation across industries and countries, which is a key factor influencing productivity growth ([OECD, 2009](#)). This is consistent with the findings of [Bassanini et al. \(2009\)](#) and the framework developed by [Bartelsman et al. \(2016\)](#).

2.2 Between sector reallocation and productivity

[Bassanini et al. \(2009\)](#) examine the impact of employment protection legislation on productivity in the OECD, using annual cross-country aggregate data on the degree of regulation and industry-level data on productivity from 1982 to 2003. They adopted a difference-in-differences framework, which exploits likely differences in the productivity effect of dismissal regulations in different industries. Their identifying assumption is that stricter employment protection influences worker or firm behavior, and thereby productivity, more in industries where the policy is likely to be binding than in other industries. The advantage of this approach is that, in contrast to standard cross-country analyses, it can control for unobserved factors that, on average, are likely to have the same effect on productivity in all industries. They found that mandatory dismissal regulations depress productivity growth in industries where lay-off restrictions are more likely to be binding. [Bartelsman et al. \(2016\)](#) develop a two-sector matching model to explain the cross-country relationship between EPL, reallocation across industries, and ultimately productivity growth. The main intuition of their framework is that – in a time of structural transformation – the extent to which an economy benefits from innovative and risky technologies depends on its labor market institutions: the higher the EPL, the higher the cost of job destruction or firm exit option, which both become more important when new technologies become available. The simulated data from the calibrated model and an empirical country/industry panel data analysis show that exploiting new risky opportunities in low-EPL countries is more advantageous. Consequently, they find that countries with strict EPL have relatively small high-risk sectors and low productivity growth.

Although the studies mentioned above shed light on how labor market regulations affect the movement of workers across different sectors, it is crucial to delve deeper into the effects on job reallocation across individual firms. Doing so would provide a more comprehensive understanding of the microeconomic mechanisms that underpin the macro consequences of EPL.

3 Job Reallocation across Firms

Harmonized firm-level databases including 16 industrial, emerging, and transition countries over the 1990s shows that EPL reduces job reallocation across firms (Haltiwanger et al., 2014). Stringent labor regulations reduce the intensive margin by reducing hiring and separations in continuing firms. The decrease in separations arises from fewer layoffs. Empirical evidence suggests that it also arises from fewer quits: workers are less likely to quit their job in countries with more job protection (Gielen and Tatsiramos, 2012) and lower severance pay make workers who may expect to be displaced in the near future more likely to voluntarily leave their employers (Garcia-Louzao, 2022). The drop in recruitment comes from the anticipation of the cost of separation which increases the discounted cost of labor. But Haltiwanger et al. (2014) find that the larger quantitative impact of EPL is on the extensive margin, i.e. on the creation and destruction of firms, which fall when EPL is more stringent.

The impact of EPL on job reallocation is likely to have effects on productivity by reducing job flows from low-productivity to high-productivity firms. This issue has motivated many contributions in several directions in the last two decades. A first series of works directly assesses the impact of employment protection using reduced-form estimates that consist of comparing firms, sectors, or regions directly affected by EPL with others that are not. This approach makes it possible to highlight part of the causal impact of EPL on reallocations and on productivity. But it cannot assess its consequences in the economy as a whole, because EPL has effects that potentially spread throughout the entire economy, in the short-medium term and in the long term. These considerations motivate work that develops models to assess the extent of the misallocation of factors of production, including labor, and the impact of EPL on this misallocation, to explore its consequences on productivity and growth.

3.1 EPL and Firm-Level Productivity

Several studies relying on natural experiments have found that the reallocation of jobs induced by EPL affects the productivity of firms. From the 1970' to the 1990' US states

introduced wrongful-discharge protection, which raised the stringency of EPL. EPL reduced annual employment fluctuations and the entry of new establishments in adopting states (Autor et al., 2007). It raised capital investment and increased the share of non-production workers. These changes in input choices led to a decline in total factor productivity. Caggese et al. (2022) exploits a natural experiment to study the impact of firing costs on productivity in Belgium, where a 2013 law increased firing costs for blue-collar workers, but made them more ambiguous for white-collar workers. The authors find that blue-collar firms experienced a significant decline in revenue TFP, averaging 5.6%, compared to white-collar firms. The effect is mainly driven by a distortion in optimal firing and hiring policies rather than capital deepening and capital-labor substitution. In Italy, a reform that introduced unjust-dismissal costs for firms below 15 employees, leaving firing costs unchanged for larger firms, induced an increase in the capital-labor ratio and a decline in total factor productivity in small firms relative to larger firms. Capital deepening was more pronounced at the low end of the capital distribution, where the reform hit arguably harder, and among firms endowed with a larger amount of liquid financial resources (Cingano et al., 2016).

Insofar as EPL leads to a reallocation of jobs that can affect all firms, including those that are not directly affected by EPL, the evaluations comparing groups directly and indirectly affected by EPL only partially shed light on the consequences of EPL. From this point of view, it is important to examine the contribution of studies that assess the impact of EPL on the economy as a whole.

3.2 The Extent of Misallocation of Labor

Assessing the extent of labor misallocation is a prerequisite to examining how it is impacted by EPL. In principle, markets that work perfectly induce an efficient allocation of labor for which the marginal productivity of labor is equal in all firms. Starting from this observation, a strand of research evaluates the extent of misallocation by measuring the dispersion of marginal productivity among firms (Restuccia and Rogerson, 2017). According to Restuccia and Rogerson (2008) the main insight of this literature is that for misallocation

to have large effects, it needs to depress inputs systematically at high-productivity producers. However, besides this finding, the insight of this approach is quite limited insofar as the measurement of marginal productivity is difficult and suffers several limitations.

First, this measurement relies on the choice of a functional form for the production function and the assumption of homogeneity of some parameters of the production function across firms (Hsieh and Klenow, 2009). In particular, using Cobb-Douglas production functions (unit elasticities) instead of accounting for low input substitutability (less-than-one elasticities) leads to overestimating the productivity loss induced by the misallocation of inputs by a large factor that can go to 1.8 according to Osotimehin and Popov (2023).

Second, how measurement errors are taken into account can have a significant impact on the results. For instance, Bils et al. (2021) propose a way to estimate the dispersion of marginal products across plants in the presence of additive measurement errors in revenue and inputs (labor, capital and intermediate products). Accounting for correction errors with this method implies that the average potential gains from reallocation fell by 60% on US data.

Third, in the presence of transitory firm-specific shocks and adjustment costs of inputs, the marginal product of labor can optimally differ across firms. Therefore differences in the dispersion of marginal productivity can be consistent with efficient allocations (Asker et al., 2014).

Bartelsman et al. (2013) provide an alternative approach to evaluate the extent of misallocation of labor. They show that firm-level labor and total factor productivity on one hand, and firm size on the other hand exhibit a positive correlation. Following Olley and Pakes (1996), they decompose the (firm size) weighted average firm-level log of industry productivity as the sum of an unweighted firm-level average and a covariance term between firm size and firm productivity. In this framework, the covariance term measures the gap between the observed average productivity of the industry and the average productivity if employment shares were randomly allocated across firms. To put it differently, the extent of misallocation of labor is larger when the covariance term – which can be negative – is smaller. They find that the average US manufacturing industry is 50 percent higher than it would be if employment shares were randomly allocated within industries, and that this

gap is smaller in countries of Continental, Central and Eastern Europe. However, the calibration of a model yields mixed evidence about the link between labor market distortions induced by regulations that increase labor costs and the extent of misallocation.

3.3 EPL and Aggregate Productivity

In order to assess the impact of EPL on aggregate productivity, it is possible to use general equilibrium models that take into account the behavior of heterogeneous firms. In this context, [Hopenhayn and Rogerson \(1993\)](#) elaborate a model with entries and exits of firms and find that firing costs equal to one year's wages reduces steady-state productivity by roughly 2 percent compared with a situation without firing costs. In the same vein, [Da-Rocha et al. \(2019\)](#) find that, relative to the benchmark economy with no firing costs, aggregate TFP in the economy with a firing cost of 6 months' wages is reduced by 3 percent; and by 21 percent in the economy with 5 year's wages. The decomposition of the total effect of firing costs on aggregate TFP between static misallocation and dynamic misallocation (as changes in the productivity distribution of establishments), suggests that dynamic misallocation accounts for around 80% of the total effect.

3.4 EPL and Innovation and Growth

EPL can impact the steady state level of productivity through the induced reallocation of labor across firms. Another possible channel is the impact on innovations, which triggers consequences for the reallocation of inputs across firms and growth. This issue is explored by [Poschke \(2009\)](#) who analyzed the effect of firing costs on productivity growth in a model of growth through firm selection accounting for job turnover, firm heterogeneity, and the contribution of entry and exit to aggregate productivity growth. In the model, growth occurs endogenously due to selection among incumbents and imitation by entrants. In this setting, firing costs induce a misallocation of labor, reduce firm value and discourage entry, and discourage exit of low-productivity firms. This congests the selection process and slows down growth. However, as first remarked by [Samaniego \(2006\)](#), if exiting firms are exempt from firing costs, the exit of low-productivity firms is promoted, strengthening

selection, and increasing growth relative to the frictionless economy. Calibration of the model to the U.S. business sector shows that introducing firing costs of one year's wages only to continuing firms promotes selection and raises growth by 0.1 percentage points. Charging them to exiting firms, too, reduces growth by the same amount compared to the benchmark, showing that the treatment of exiting firms is crucial for the growth effects of EPL. The impact of EPL on innovation and growth has also been analyzed by [Mukoyama and Osotimehin \(2019\)](#) who model innovation as a process of creative destruction: entrants displace the incumbent producers when they successfully innovate. Firms decide on entry, production, employment, and on investments that enhance their productivity. In this framework, firing costs can have opposite effects on entrants' innovation and incumbents' innovation. Firing costs reduce entrants' innovation whereas they may enhance incumbents' innovation. The entrants' innovation declines because firing costs and misallocation of labor reduce expected future profits. For incumbent firms larger than their optimal size, innovating has the added benefit of allowing them to reduce the risk of paying the firing tax. Accordingly, these firms invest more in RD when EPL is more stringent. By contrast, for firms that are smaller than their optimal size, the drop in expected profits and the misallocation induced by EPL discourage innovation. In addition, the rate at which entrants innovate affects the incumbents' incentive to innovate. As a result, firing costs change the composition of innovation. The quantitative results show the overall effect of EPL on growth is negative when entrants' innovation is the main driver of growth but can have opposing effects if incumbents' innovation is the main driver.

4 Reallocation across Worker Types and Job Security

The ultimate aim of EPL is to provide workers with job security and bargaining power. For political economy reasons, many countries in Europe developed a dual EPL system over the years: while the regulation of temporary contracts was largely relaxed, the employment protection measures associated with permanent positions remained unchanged ([Bentolila et al., 2020](#)). Intuitively, in these contexts, stringent regulation of permanent jobs makes them more protected at the expense of higher instability of temporary jobs, with an

ambiguous impact on overall job security which is detrimental to labor market entrants.

Hijzen et al. (2017) use a regression discontinuity design to exploit the differences in EPL provisions for permanent jobs between small and large firms in Italy. The study finds that EPL tends to increase worker reallocation – measured as excessive worker turnover – which may reduce rather than increase job security. The authors also show that the impact of EPL on worker reallocation is entirely explained by the *churning* of workers on temporary contracts. Overall, the authors estimate that EPL accounted for about 12% of the total incidence of temporary work in Italy in 2008/2009.

This equilibrium has been illustrated in search and matching models with temporary and permanent jobs in place (Blanchard and Landier, 2002; Cahuc and Postel-Vinay, 2002; Cahuc and Carcillo, 2006). This result holds significance as temporary jobs generally have lower wages and wage growth (Daruich et al., 2023) and provide less training (Bratti et al., 2021) compared to permanent positions. Moreover, individuals in temporary employment tend to report lower levels of job satisfaction compared to their counterparts in permanent jobs (Booth et al., 2002).

4.1 Reallocation Across Workers of Different Tenures

One of the dimensions of this duality is tenure, particularly when firing costs are increasing in it. Cingano et al. (2016) exploit the same discontinuity as in Hijzen et al. (2017) and find that stricter EPL in Italy raises the share of high-tenure workers as well as average seniority in larger firms. Cahuc et al. (2019) exploit a discontinuity in the relationship between employees' job tenure and the compensation they receive for unfair dismissals to study and quantify the procedural costs faced by firms in the event of a firing. In their empirical context, job protection reduces the expected duration of employment at the time of hiring. The negative impact of employment protection on job tenure is induced by the anticipation effect: firms, anticipating that they will have to bear higher costs in the future, prefer to bring forward the decision to lay off rather than take the risk of continuing the relationship. The anticipation effect, which leads to the destruction of low-seniority jobs – predominantly for low-skilled workers – is counterbalanced by labor retention, which

reduces the separation rate for long-term jobs.

4.2 Reallocation Detrimental to Labor Market Entrants

Importantly, theoretical models further suggest that the allocation of temporary jobs within the labor force is not random. When substantial firing costs are associated with permanent positions, employers tend to be less willing to hire new entrants for these positions. As a result, new entrants are more likely to be placed in temporary jobs, so that their productivity can be assessed before considering a permanent employment offer. [Kahn \(2007\)](#) examines the impact of employment protection mandates on the demographic patterns of temporary employment. The findings show a positive association between the strength of regular employment protection and the prevalence of temporary employment, with a particular concentration among young workers, native women, immigrant women, and low cognitive ability workers. Reforms that widened the gap in EPL between permanent and temporary workers have been found to disproportionately harm labor market entrants, particularly women, youth, and low-skilled workers who experience intermittent employment ([Barbieri and Cutuli, 2016](#); [Cazes and Tonin, 2010](#)), resulting in higher rates of youth unemployment and an increase in precarious forms of employment ([Bentolila et al., 2012](#); [Boeri and Garibaldi, 2007](#)).

To sum up, higher EPL – and particularly a high-EPL gap – affects the composition of employment and unemployment. These findings highlight the distributional effects of EPL reforms, indicating non-negligible costs for certain segments of the workforce. This labor market segmentation contributes to inequality by disproportionately impacting vulnerable groups, such as women, youth, and low-skilled workers.

5 Conclusion

A significant portion of recent research has centered around the potential effects of EPL on overall employment and unemployment rates, yielding mixed findings ([Bentolila et al., 2020](#)). In contrast, this paper summarizes the state of knowledge on the impact of EPL on labor market dynamics, particularly its connection to job and worker movements across

sectors and firms, and the resulting impact on aggregate growth. There is ample evidence that EPL has a significant impact on the allocation of jobs across industries, firms and workers. It is clear that EPL raises labor market segmentation between stable jobs and unstable ones, more frequently occupied by young people and low-skilled individuals. Research has also documented the channels through which the reallocation of jobs induced by EPL can influence productivity, innovation and growth. EPL-induced job reallocation hinders the movement of jobs from low- to high-productivity firms, leading to a decrease in total factor productivity and influencing input choices. Assessing labor misallocation is crucial for understanding the effects of EPL, although accurate measurement poses challenges. General equilibrium models indicate that firing costs associated with EPL reduce steady-state productivity and have a greater impact on dynamic misallocation. Additionally, EPL can affect innovation and growth by influencing the entry and exit of firms. The impact is negative when entrants' innovation is the primary driver, but it can have divergent effects if incumbents' innovation plays a more significant role. We conclude that the quantification of these effects remains to a large extent an open question.

References

- ASKER, J., A. COLLARD-WEXLER, AND J. D. LOECKER (2014): "Dynamic Inputs and Resource (Mis)Allocation," *Journal of Political Economy*, 122, 1013–1063.
- AUTOR, D. H., W. R. KERR, AND A. D. KUGLER (2007): "Does Employment Protection Reduce Productivity? Evidence from US States," *The Economic Journal*, 117, F189–F217.
- BARBIERI, P. AND G. CUTULI (2016): "Employment protection legislation, labour market dualism, and inequality in Europe," *European Sociological Review*, 32, 501–516.
- BARTELSMAN, E., J. HALTIWANGER, AND S. SCARPETTA (2013): "Cross-Country Differences in Productivity: The Role of Allocation and Selection," *American Economic Review*, 103, 305–34.
- BARTELSMAN, E. J., P. A. GAUTIER, AND J. DE WIND (2016): "Employment protection, technology choice, and worker allocation," *International Economic Review*, 57, 787–825.
- BASSANINI, A. AND A. GARNERO (2013): "Dismissal protection and worker flows in OECD countries: Evidence from cross-country/cross-industry data," *Labour Economics*, 21, 25–41.
- BASSANINI, A., L. NUNZIATA, AND D. VENN (2009): "Job protection legislation and productivity growth in OECD countries," *Economic Policy*, 24, 349–402.
- BENTOLILA, S., P. CAHUC, J. J. DOLADO, AND T. LE BARBANCHON (2012): "Two-tier labour markets in the great recession: France Versus Spain," *The Economic Journal*, 122, F155–F187.
- BENTOLILA, S., J. J. DOLADO, AND J. F. JIMENO (2020): "Dual Labor Markets Revisited," in *Oxford Research Encyclopedia of Economics and Finance*, 1–34.
- BILS, M., P. J. KLENOW, AND C. RUANE (2021): "Misallocation or Mismeasurement?" *Journal of Monetary Economics*, 124, S39–S56.
- BLANCHARD, O. AND A. LANDIER (2002): "The Perverse Effects of Partial Labour Market Reform: Fixed-Term Contracts in France," *The Economic Journal*, 112, F214–F244.
- BOERI, T. AND P. GARIBALDI (2007): "Two tier reforms of employment protection: a honeymoon effect?" *The Economic Journal*, 117, F357–F385.

- BOOTH, A., M. FRANCESCONI, AND J. FRANK (2002): "Temporary Jobs: Stepping Stones Or Dead Ends?" *The Economic Journal*, 112, F189–F213.
- BRATTI, M., M. CONTI, AND G. SULIS (2021): "Employment protection and firm-provided training in dual labour markets," *Labour Economics*, 69, 101972.
- CAGGESE, A., O. GULER, M. MARIATHASAN, AND K. MULIER (2022): "Firing Costs and Productivity: Evidence from a Natural Experiment," *Economics Working Papers, Department of Economics and Business, Universitat Pompeu Fabra*.
- CAHUC, P. AND S. CARCILLO (2006): "The Shortcomings of a Partial Release of Employment Protection Laws: The Case of the 2005 French Reform," *International Monetary Fund Working Papers*.
- CAHUC, P., F. MALHERBET, AND J. TRAPP (2019): "L'effet des coûts de licenciement sur la durée des emplois des travailleurs peu qualifiés en France," *Revue française d'économie*, XXXIV, 15–43.
- CAHUC, P. AND F. POSTEL-VINAY (2002): "Temporary jobs, employment protection and labor market performance," *Labour Economics*, 9, 63–91.
- CAZES, S. AND M. TONIN (2010): "Employment protection legislation and job stability: A European cross-country analysis," *International Labour Review*, 149, 261–285.
- CINGANO, F., M. LEONARDI, J. MESSINA, AND G. PICA (2016): "Employment Protection Legislation, Capital Investment and Access to Credit: Evidence from Italy," *The Economic Journal*, 126, 1798–1822.
- DA-ROCHA, J.-M., M. M. TAVARES, AND D. RESTUCCIA (2019): "Firing costs, misallocation, and aggregate productivity," *Journal of Economic Dynamics and Control*, 98, 60–81.
- DARUICH, D., S. DI ADDARIO, AND R. SAGGIO (2023): "The Effects of Partial Employment Protection Reforms: Evidence from Italy," *The Review of Economic Studies*, 90, 2880–2942.
- EI-FAYOUMI, K. (2020): "The Role Of Labor Market Frictions In Structural Transformation," 26, 1239–1263.
- GARCIA-LOUZAO, J. (2022): "Workers' job mobility in response to severance pay generosity," *Labour Economics*, 75, 102–143.
- GIELEN, A. C. AND K. TATSIRAMOS (2012): "Quit behavior and the role of job protection," *Labour Economics*, 19, 624–632.

- HALTIWANGER, J., S. SCARPETTA, AND H. SCHWEIGER (2014): "Cross country differences in job reallocation: The role of industry, firm size and regulations," *Labour Economics*, 26, 11–25.
- HIJZEN, A., L. MONDAUTO, AND S. SCARPETTA (2017): "The impact of employment protection on temporary employment: Evidence from a regression discontinuity design," *Labour Economics*, 46, 64–76.
- HOPENHAYN, H. AND R. ROGERSON (1993): "Job Turnover and Policy Evaluation: A General Equilibrium Analysis," *Journal of Political Economy*, 101, 915–938.
- HSIEH, C.-T. AND P. J. KLENOW (2009): "Misallocation and Manufacturing TFP in China and India," *The Quarterly Journal of Economics*, 124, 1403–1448.
- KAHN, L. (2007): "The Impact of Employment Protection Mandates on Demographic Temporary Employment Patterns: International Microeconomic Evidence," *The Economic Journal*, 117, 333–356.
- MUKOYAMA, T. AND S. OSOTIMEHIN (2019): "Barriers to Reallocation and Economic Growth: The Effects of Firing Costs," *American Economic Journal: Macroeconomics*, 11, 235–70.
- OECD (2009): "Employment Outlook," *OECD Publishing*.
- OLLEY, G. S. AND A. PAKES (1996): "The Dynamics of Productivity in the Telecommunications Equipment Industry," *Econometrica*, 64, 1263–1297.
- OSOTIMEHIN, S. AND L. POPOV (2023): "Misallocation and intersectoral linkages," *Review of Economic Dynamics*, 51, 177–198.
- POSCHKE, M. (2009): "Employment protection, firm selection, and growth," *Journal of Monetary Economics*, 56, 1074–1085.
- RESTUCCIA, D. AND R. ROGERSON (2008): "Policy distortions and aggregate productivity with heterogeneous establishments," *Review of Economic Dynamics*, 11, 707–720.
- (2017): "The Causes and Costs of Misallocation," *Journal of Economic Perspectives*, 31, 151–74.
- SAMANIEGO, R. M. (2006): "Do firing costs affect the incidence of firm bankruptcy?" *Macroeconomic Dynamics*, 10, 467–501.