WPS7229

Policy Research Working Paper 7229

Labor Market Regulations and Outcomes in Sweden

A Comparative Analysis of Recent Trends

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WORLD BANK GROUP
Development Economics
Global Indicators Group
April 2015

Policy Research Working Paper 7229

Abstract

This paper analyzes recent trends in Sweden's labor market regulations in relation to comparator economies and examines the relationship between labor market regulations and outcomes. The paper finds that the Swedish labor market responded more rapidly to the recent global financial crisis than the majority of the European Union economies, which helped Sweden to recover quickly. Sweden's hiring regulations are more flexible than those of many comparator economies, however, fixed-term contracts of short duration might have adverse consequences for the economy. In addition, Sweden's regulations on work during the weekly holidays and mandatory paid annual leave are stricter than those of the majority of comparator economies. Moreover, among the economies of the Organisation for Economic Co-operation and Development, Sweden has one of the largest differences in employment protection between permanent and temporary employees, which could lead to a segmented labor market, where insiders enjoy high job security and outsiders are largely marginalized. This could be cause for concern, given that Sweden has a higher share of involuntary temporary workers among youth and involuntary part-time workers than both the Nordic and European Union averages. While protecting employees is important, excessive protection, particularly if it differs across different types of employment contracts, has been shown to have adverse effects on welfare and economic performance.

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Labor Market Regulations and Outcomes in Sweden: A Comparative Analysis of Recent Trends[1]

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Keywords: Labor market regulations and flexibility; wage determination; temporary employment; unemployment; productivity.

JEL classification codes: J3, J24, J41, J51, J64, J65.

[1] The corresponding author can be contacted at hulku@worldbank.org. The authors thank Pontus Braunerhjelm, Johan Eklund and Augusto Lopez Claros for their constructive feedback as well as the participants of the launch seminar of the Swedish Economic Forum Report 2014 for their comments and suggestions. The original version of this paper was published in Swedish Economic Forum Report 2014. All remaining errors are ours.

1. Introduction

Increased competition and the greater frequency of global economic crises in recent decades have led many countries to reevaluate their economic institutions and undertake comprehensive structural reforms to keep pace with the changing global economic climate and be better prepared for future crises. Among these reforms, labor market regulations feature prominently. At the onset of the 2008–09 global financial crisis virtually all OECD economies increased the flexibility of their labor markets to varying degrees to curtail high unemployment and recover output losses (Clauwaert and Schömann, 2012).

Having overhauled economic institutions after a devastating crisis in the early 1990s, Sweden rebounded more rapidly from the 2008–09 crisis than other OECD economies. As part of the structural reforms of the 1990s and 2000s, Sweden's labor market underwent a major transformation (Forslund and Krueger, 2008; Erhel and Levionnois, 2013). The main objective was to increase labor market participation by shifting the policy focus from "passive" to "active" labor market activities—to find the right mix of policies to protect the unemployed while at the same time creating incentives for them to search for a job and helping them find a placement (Forslund and Krueger, 2008).

Among the changes in passive labor market programs were reducing the level of unemployment benefits in 1996, introducing a two-tier benefit system in 2001 and raising membership fees for unemployment insurance in 2007, with the last probably being the most controversial. Changes in active labor market programs included the introduction of a work placement program in 1995, adult education training in 1997, trainee replacement schemes during 1991–97 and in-work tax credit reform in 2007. Research shows that these policies increased the job search and placement rate for the unemployed (Forslund and Krueger, 1997; Calmfors et al., 2004; Kjellberg, 2013). Another important change in Sweden's labor market policy was a substantial decrease in public expenditure on labor market programs as a share of GDP between the 1990s and 2000s. This was a legacy of the devastating impact on the labor market of the 1991 crisis, which further strained already limited public finances. In 1992 Sweden had the second highest labor market expenditure in Europe as a share of GDP, at just below 6 percent; in 2010 its level of labor market expenditure was only the 12th highest in Europe, at just below 2 percent of GDP (Erhel and Levionnois, 2013).

Sweden's continued reforms combined with its high levels of human capital and innovation capacity and its stable macroeconomic conditions place the country among the best performing economies in the world. Sweden ranks 10th among 144 economies in the World Economic Forum's 2014 *Global Competitiveness Report*. It placed 14th among 189 economies in the World Bank Group's 2014 Ease of Doing Business ranking, suggesting that its business environment is among the most conducive to private business activity. And its productivity level in manufacturing is among the highest in the world, strengthening its global competitiveness (OECD, 2012). But whether Sweden will be able to sustain its competitiveness over the long term will depend on its ability to maintain high productivity

levels in high-tech manufacturing and service sectors. This will depend critically on, among other things, the smooth functioning of product and labor markets.

Against this backdrop, this paper provides an analysis of recent trends in Sweden's labor market regulations and outcomes relative to those of comparators among OECD high-income economies.[2] The first part of the paper analyzes labor market regulations and labor market flexibility in Sweden in comparison with other economies in the EU15 and Nordic region, the G7 economies and the OECD average. The second part investigates the relationship between different measures of labor market flexibility and labor market outcomes in OECD and European economies. The analysis draws on several sources, including the World Bank Group's *Doing Business* database, Organisation for Economic Co-operation and Development (OECD) data, Fraser Institute's Economic Freedom of the World, the *Global Competitiveness Report* and Eurostat.

2. Labor Market Flexibility

In theory, flexible labor markets promote employment and productivity. They increase the responsiveness of wages to changing economic conditions and promote labor mobility across sectors by reducing the risk and opportunity cost of changing jobs and by providing the right incentive mechanisms for both employers and employees. In addition, they align the unit labor cost with the productivity of employees by lowering the regulatory cost of employment and promoting the ability of the economy to reward the skill sets and productivity levels of individual employees (e.g., Hopenhayn and Rogerson, 1993; Martin and Scarpetta, 2012; Blanchard et al., 2013).

But just as overly protected labor markets adversely affect economies, so do overly flexible labor markets. Where labor markets are excessively flexible, they tend to decrease the productivity and innovative capacity of companies by reducing employers' incentives to invest in employees with short-term contracts and by weakening employees' attachment to their company and discouraging them from investing in company-specific assets (John et al., 2012). In addition, when the labor market flexibility manifests itself in greater use of temporary employees with a low level of employment protection while a high level of protection is maintained for permanent employees, the economy runs the risk of a dual labor market—where permanent employees enjoy high levels of job security and investment in training opportunities and temporary employees are marginalized through low levels of pay, social benefits and training opportunities (Blanchard et al., 2013; John et al., 2012).[3]

[2] Throughout the rest of this paper, OECD high-income economies will be referred to as OECD.

[3] Temporary employees are those with a contract in which it is understood—by both employer and employees—that the termination of the job is determined by objective conditions such as the reaching of a certain date, the completion of an assignment or the return of another employee who has been temporarily replaced. Temporary employment takes multiple forms across countries, the most common of which are fixed-term contracts, seasonal contracts and temporary agency work. Temporary contracts can be full-time or part-time.

The challenge for today's economies, particularly for small open economies like Sweden, is therefore to find the right balance between flexibility of the labor market and protection for employees. The recent literature provides in-depth analysis of these issues and explores new avenues for achieving balanced labor market regulations. One approach that has received much attention from researchers and policy makers is Denmark's flexicurity model, because it provides protection for employees while maintaining the flexibility of the labor market.

The following sections provide a comparative analysis of labor market flexibility in Sweden using key indicators from the theoretical and empirical literature, including indicators relating to the flexibility of wage determination, regulations on hiring and minimum wages, regulations on hours and regulations on redundancy.

2.1. Flexibility of wage determination

Wage flexibility refers to the speed of adjustment in nominal and real wages in response to changes in economic conditions such as price levels, unemployment and the composition of labor (Arpaia and Pichelman, 2007). Economic theories point out that the flexibility of wages is closely linked to the type of wage setting system. They argue that as the role of central collective bargaining in wage determination increases, wages will become higher and more compressed and thus will adjust more slowly to adverse shocks, leading to a higher level of unemployment. It is also argued that in countries with a central collective bargaining system the productivity and skill sets of individual employees will be rewarded to a lesser extent than in those with a firm-level bargaining system.

Empirical research provides strong evidence for a positive association between central collective bargaining systems on the one hand and compressed wages and lower income inequality on the other (e.g., Dahl et al., 2013; Freeman, 2007; OECD, 2004). In addition, studies provide evidence from different OECD countries that while the wages of blue-collar workers are higher under central collective bargaining, the wages of white-collar workers are higher under firm-level bargaining (Dell'Aringa and Lucifora, 1994; Card and de la Rica, 2006; Dahl et al., 2013; Fitzenberger et al., 2008; Magda et al., 2012).[4] In line with the theoretical predictions, these studies also suggest that firm-level bargaining takes into account the productivity and skill sets of workers better than does central collective bargaining. Although the empirical literature does not provide clear-cut guidance on the impact of different wage setting systems on the flexibility of aggregate wages, it suggests that the wages of white-collar workers are more rigid under firm-level bargaining while the wages of blue-collar workers are more rigid under central collective bargaining.

[4] For example, in Italy, Spain, Denmark and Germany wages are higher under localized or firm-level bargaining than under central bargaining, and firm-level bargaining raises wages more for white-collar and skilled workers than for blue-collar workers (Dell'Aringa and Lucifora, 1994; Card and de la Rica, 2006; Dahl et al., 2013; Fitzenberger et al., 2008). Similar results are found in the Czech Republic, Poland and Hungary, where industry agreements increase wages for low-skilled workers while company agreements increase them for medium- and high-skilled workers (Magda et al., 2012).

A comparative overview of wage-setting systems

Wage setting systems vary significantly across OECD economies. At one end of the spectrum are Anglo-Saxon countries—such as Australia, Canada, the United Kingdom and the United States—as well as Japan, where wages are determined at the firm level; at the other end of the spectrum are Belgium and Finland, where wages are determined mainly through central collective bargaining. In most OECD countries, including Denmark, Norway and Sweden, wage bargaining takes place predominantly at the sector level, with varying levels of multilevel bargaining, coordination, tripartite concertation and extension rules (Table 1).[5] Among the EU15 countries where sector-level collective bargaining is dominant, Sweden has a greater degree of decentralization than some others, such as Austria, Finland, Germany, the Netherlands and Spain: in Sweden collective agreements do not extend to other parties, and government involvement in collective bargaining is very rare (Kullander, 2012). Moreover, company-level agreements are becoming more common in Sweden than in some other EU15 countries.

Table 1: Characteristics of collective wage bargaining in EU15 countries

		Level of collective bargaining					
		Inter-sectoral	Sectoral	Company	Coordination level	Influence of tripartite concertation	Extension rule
Intersectoral bargaining dominant	Belgium	+++	+++	++	High	Yes	Yes
	Finland	+++	+++	++	High	Yes	Yes
Sectoral bargaining dominant	Denmark	++	+++	++	Medium	No	Yes
	Greece	++	+++	+	Low	No	Yes
	Norway	+++	+++	++	High	Yes	No
	Italy	+	+++	++	Medium	Yes	No
	Netherlands	+	+++	++	Medium	Yes	Yes
	Sweden	+	+++	++	High	No	No
	Spain	+	+++	++	High	Yes	Yes
	Austria	—	+++	+	High	No	Yes
	Germany	—	+++	++	Medium	No	Yes
Company bargaining dominant	Ireland	++	+	+++	Low	Yes	Yes
	France	+	++	+++	Low	No	Yes
	Luxembourg	+	++	+++	Low	—	Yes
	United Kingdom	—	++	+++	Low	No	No

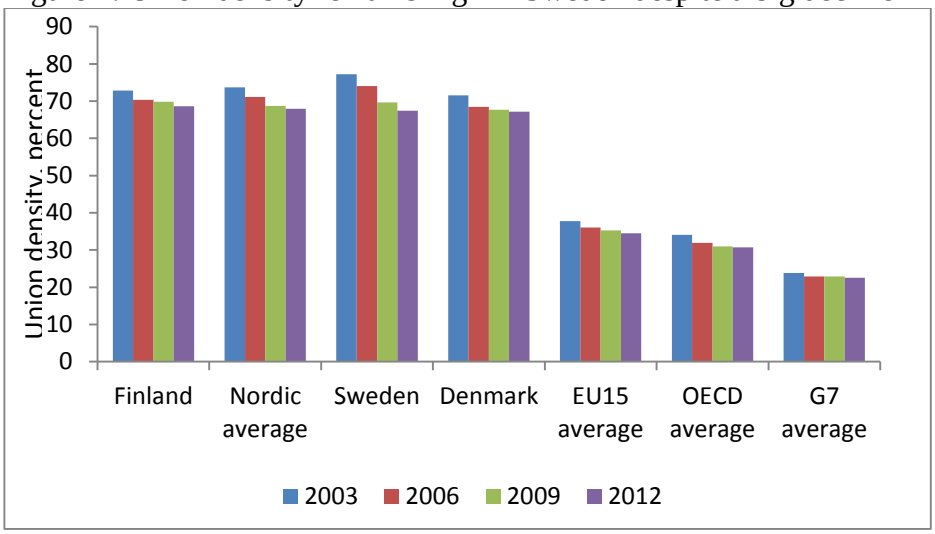
Source: Based on data provided in country profiles in Eurofound 2014 at http://www.eurofound.europa.eu.
Note: All information is as of September 2014. +++ = principal or dominant level of collective bargaining; ++ = important but not dominant level; + = existing but marginal level; — = not applicable.

[5] In tripartite concertation in addition to trade unions and employers' association government is also part of the negotiations. Extension rules refer to the cases where decisions taken through collective agreements are also binding for employees who are not members of the unions or employers' associations.

According to the OECD (2004), since the 1990s not a single OECD country has moved toward centralization in collective bargaining while a considerable number have moved toward greater decentralization. Among these, Denmark, the Netherlands, Sweden and the United Kingdom had the most pronounced decentralization during the period from the 1980s through the 2000s (Lindberg, 2007). The major change in Sweden's collective bargaining system took place in 1997, following the crises of the 1970s and 1991, as the industrial agreement between the three main trade unions and the corresponding employers' associations shifted collective bargaining from the intersectoral to the sectoral level.[6] With the aim of keeping wage increases in line with those in other European countries and maintaining the competitiveness of the Swedish economy, the agreement gave the manufacturing sector the role of setting the standard for wage increases because it was more exposed to international competition than other sectors (Anxo and Niklasson, 2007; Karlson and Lindberg, 2011).

Union density has steadily declined across Europe since the late 1990s. Sweden, Luxembourg, Austria and Germany had the largest declines between 2003 and 2012. But Sweden still has the third highest union density in the OECD, with 67.4 percent of employees belonging to a union (Figure 1). Levels are higher only in Iceland (82.6 percent) and Finland (69.6 percent). Moreover, collective bargaining still covers around 90 percent of employees in Sweden, indicating that collective agreements will continue to determine a large share of labor market regulations, working conditions and wage setting in the country (Lehndorff, 2012).

Figure 1: Union density remains high in Sweden despite a big decline



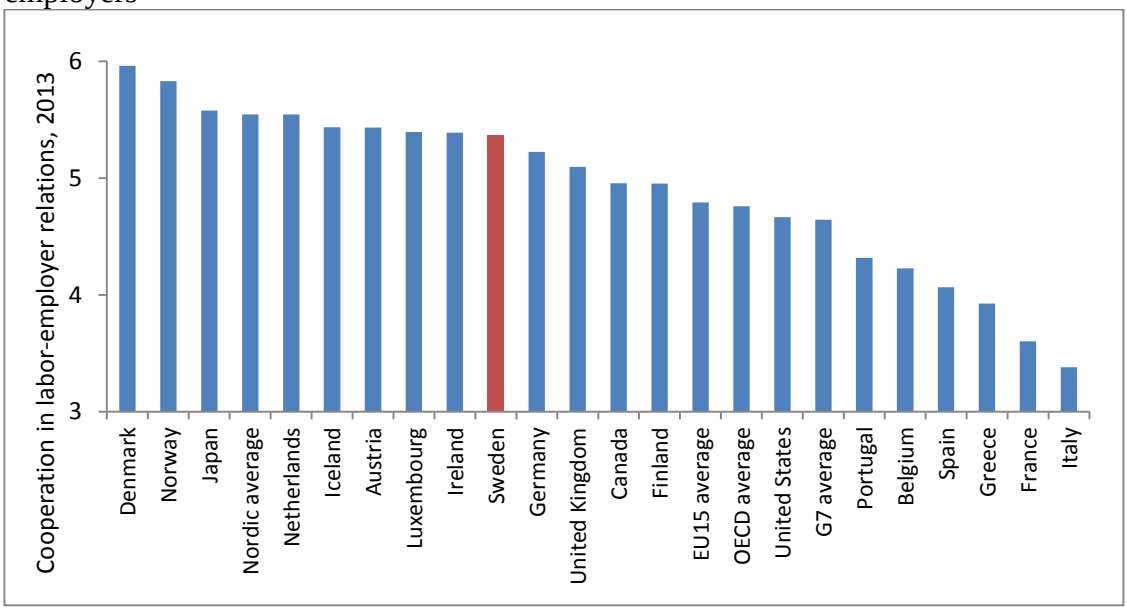
Source: OECD (2014b). Note: Union density is the share of wage and salary earners who are union members. Countries and country groups are in descending order by union density in 2012. The Nordic average excludes Sweden.

[6] These unions are the Swedish Federation of Blue-Collar Workers in the Engineering Industry, affiliated with the LO Confederation; the Swedish Federation of White-Collar Workers in Industry, affiliated with the TCO Confederation; and the Swedish Association of Graduate Engineers, affiliated with the SACO Confederation.

The response of Sweden's wage-setting system to the global financial crisis

Contrary to the widespread view that highly unionized economies respond more slowly to adverse shocks, Sweden's labor market dealt relatively well with the recent global financial crisis. The experience of the social partners with collective bargaining through many turbulent periods, the generally progressive and pragmatic attitude of the Swedish public in dealing with difficulties and the high level of cooperation between unions and employers' associations as well as their recognition of each other's interests were all among the factors that helped the Swedish economy work its way through the crisis (Ahlberg and Bruun, 2005; Blanchard et al., 2013). According to the *Global Competitiveness Report* of World Economic Forum (2014), Sweden has among the highest levels of employee-employer cooperation in the world: the report ranked Sweden 17th in 2013 among 144 countries on its index on the degree of cooperation between employees and employers—above Germany, United Kingdom, Canada, Finland and United States as well as the averages for the EU15, OECD and G7 (Figure 2).

Figure 2: Sweden has one of the highest levels of cooperation between employees and employers

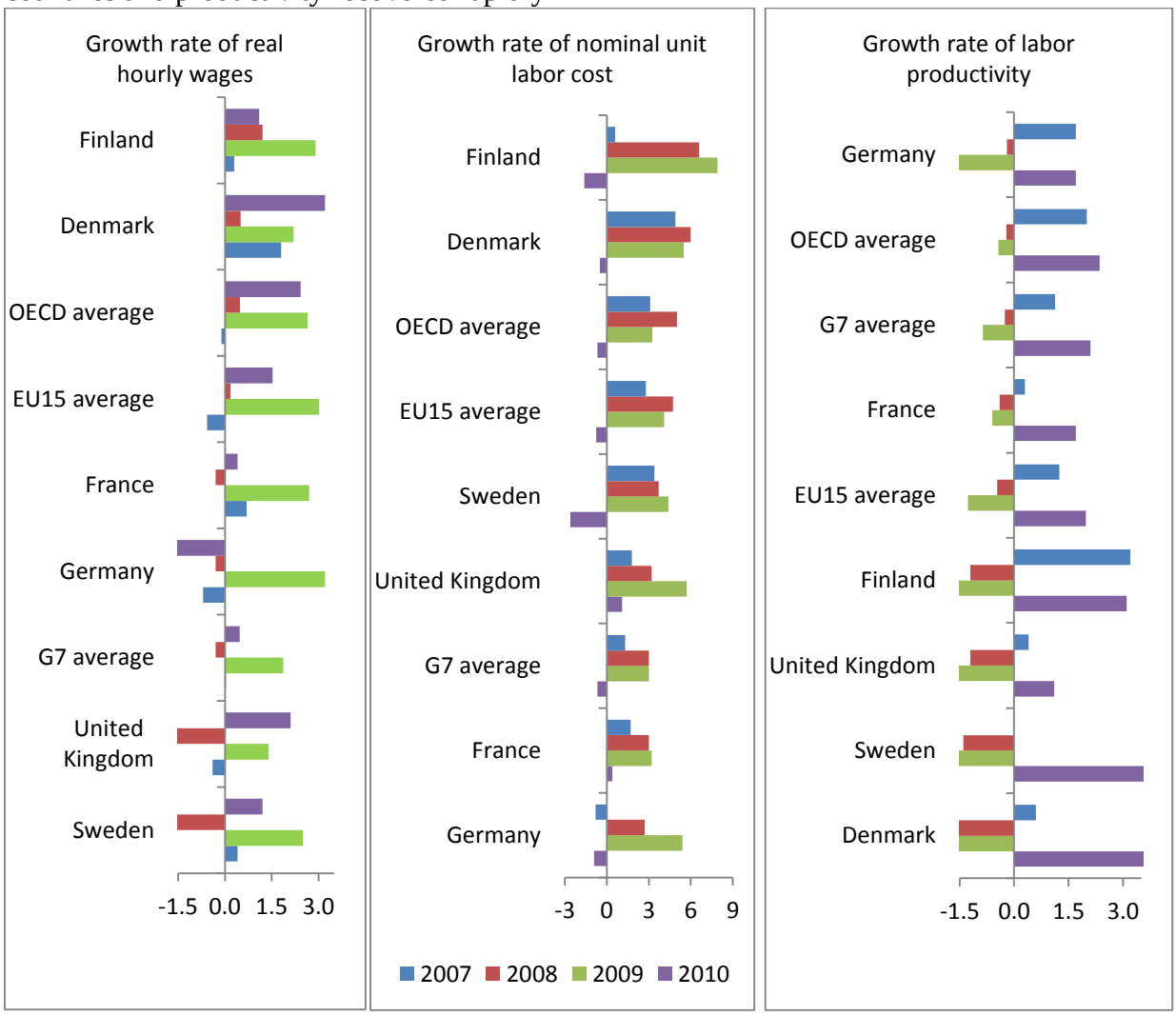


Source: World Economic Forum (2014).
Note: The index is based on the World Economic Forum's Executive Opinion Survey, which gathers perception data from entrepreneurs. It ranges from 1 to 7; higher numbers indicate higher levels of cooperation. The Nordic average excludes Sweden.

During the global financial crisis Sweden had among the highest numbers of industrial agreements to cope with its adverse effects—along with Belgium, France, Germany, Italy, the Netherlands, Spain and the United Kingdom (Johansson and Linderoth, 2012; Glassner et al., 2010). Social partners in Sweden's metal and automotive industry signed agreements at the plant level for temporary layoffs as well as reduced working hours, pay and labor costs. To help mitigate the social

cost and increase the skills of employees, they also agreed on the provision of training for workers (Glassner et al., 2010). Other innovative procedural changes in the agreements included allowing a stepwise increase in wages in accordance with the company's economic situation and a temporary deviation from pay increases set in the sectoral agreement (Glassner et al., 2010).

Figure 3: In Sweden real wages responded more quickly to the crisis than in the majority of OECD countries and productivity recovered rapidly

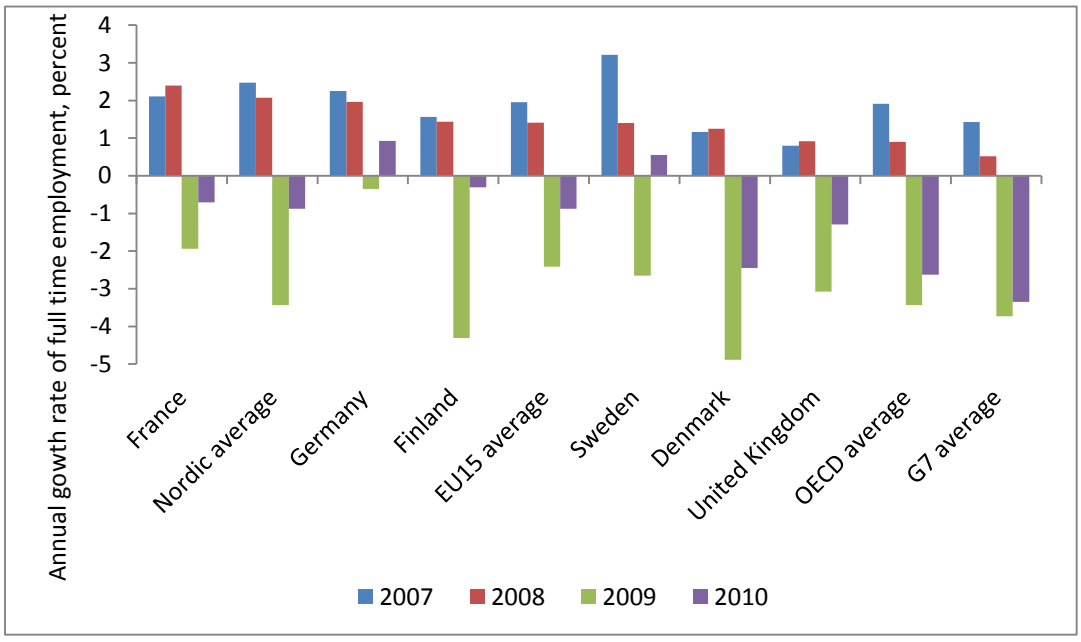


Source: OECD (2014b).
Note: Countries and country groups in each chart are in descending order by the indicator value in 2008. All growth rates are annual.

Sweden's real hourly wages and nominal hourly unit labor cost adjusted to the crisis more quickly than those of the majority of OECD countries. The growth rate of real hourly wages in Sweden decreased substantially with the start of the crisis in 2008, falling from 1.2 percent in 2007 to −1.6 percent in 2008 (Figure 3). Sweden and the United Kingdom had the biggest decreases in the OECD; Denmark and Finland had the smallest. Sweden also had a bigger decrease in the growth rate of the nominal unit labor cost than the majority of OECD countries, including Denmark and Finland. Although Sweden saw one of the biggest declines in the growth rate of labor productivity at the onset of the crisis, it quickly recovered, reaching the highest level in the OECD in 2010 following Denmark.

Owing to the rapid adjustments in wages and labor cost, Sweden had a smaller decline in the growth rate of full-time employment than the majority of OECD economies during the crisis period, despite having had one of the highest growth rates before the crisis. And along with Germany, it had the sixth largest recovery in the growth rate of employment in 2010 among 31 OECD high-income economies—though in both countries it remained below the pre-crisis and early-crisis rates (Figure 4).

Figure 4: Sweden saw a smaller decline in employment growth during the crisis than many other OECD countries—and among the largest recoveries



Source: OECD (2014b).
Note: Countries and country groups are in descending order by the growth rate of employment in 2008. The Nordic average excludes Sweden.

The challenge going forward

In brief, the findings reported in this section show that Sweden's collective bargaining system has many distinguishing characteristics, among which are increasing decentralization, complete independence from government and a high level of cooperation between unions and employers' associations. The recent financial crisis proved the effectiveness of Sweden's unions in curbing unemployment through innovative measures.

Going forward, one challenge for Sweden is to maintain the competitiveness of its export sector, which plays a critical role in the economy and faces an increasingly globalized world where competition is fierce and technology advances faster than ever. The dominance of Sweden's well-developed collective bargaining system puts much of the responsibility for this on the social partners, who have a huge task: they must strike the right balance between promoting labor market flexibility—to help increase labor mobility across sectors, keep unit labor costs in line with those in comparable economies and reward the productivity and skill sets of individual workers—and protecting employees.

2.2. Hiring regulations and minimum wages

The effect on economic outcomes of regulations relating to fixed-term contracts and minimum wages has been extensively discussed in the literature. There is a general consensus that the availability of fixed-term contracts and a lower minimum wage increase labor market flexibility and reduce unemployment (Bentolila and Saint-Paul, 1994). But their impact on productivity and overall economic performance is not clear and appears to depend on how fixed-term contracts and minimum wages are specified (OECD, 2014b).

A review of the research

In theory, the ability to use fixed-term contracts increases labor market flexibility by allowing firms to adjust the amount and composition of their workforce to changing supply and demand conditions. Fixed-term contracts are also expected to increase labor market participation—by providing employment opportunities for people with little or no work experience, low skill levels and atypical working hours—and can serve as a bridge to permanent employment (Booth et al., 2000). But their overall effect on productivity, economic performance and welfare appears to depend on at least two factors: the duration of the fixed-term contracts and the differences in employment protection between temporary and permanent employees.

If fixed-term contracts are too short in duration—allowing too little time for employees to build their skills and acquire experience and for employers to assess employees' performance and invest in them—they could increase volatility in the labor market and reduce job satisfaction, human capital development and productivity (Güell, 2002).

Moreover, large differences in employment protection between temporary and permanent employees have been shown to create a dual labor market, where permanent employees enjoy high levels of job security and training as well as better career prospects while temporary employees are used as a buffer against economic uncertainties, are given low pay and limited training opportunities, and thus are largely marginalized (Booth et al., 2000; Blanchard and Landier, 2002; Dolado et al., 2012). According to the OECD (2014b), job satisfaction among temporary workers declines as the gap between the level of employment protection for temporary employees and that for permanent employees widens. Research shows that these differences also significantly reduce the probability of temporary employees' transitioning to permanent jobs because of the dismissal costs associated with permanent employment (OECD, 2014b).

The effect of a minimum wage on productivity and unemployment depends on its level as well as the ability to account for differences in local settings and in the characteristics of employees (OECD, 2014b). If the minimum wage is set too high, it will reduce employment opportunities for low-skilled workers and increase unemployment. If it is set too low, it will reduce the incomes of low-income workers and adversely affect their incentives and productivity (OECD, 2014b). An effective minimum wage is one that is set at a level at which it does not crowd out low-skilled employees and that accounts for regional differences in income levels as well as in the age, experience and productivity of employees.

Flexibility in hiring regulations and the minimum wage is important to an economy's ability to respond to changing market conditions and keep unemployment low. But the effect of these features of labor market regulation on productivity and economic performance depends largely on how well their unintended negative consequences are taken into account in their design.

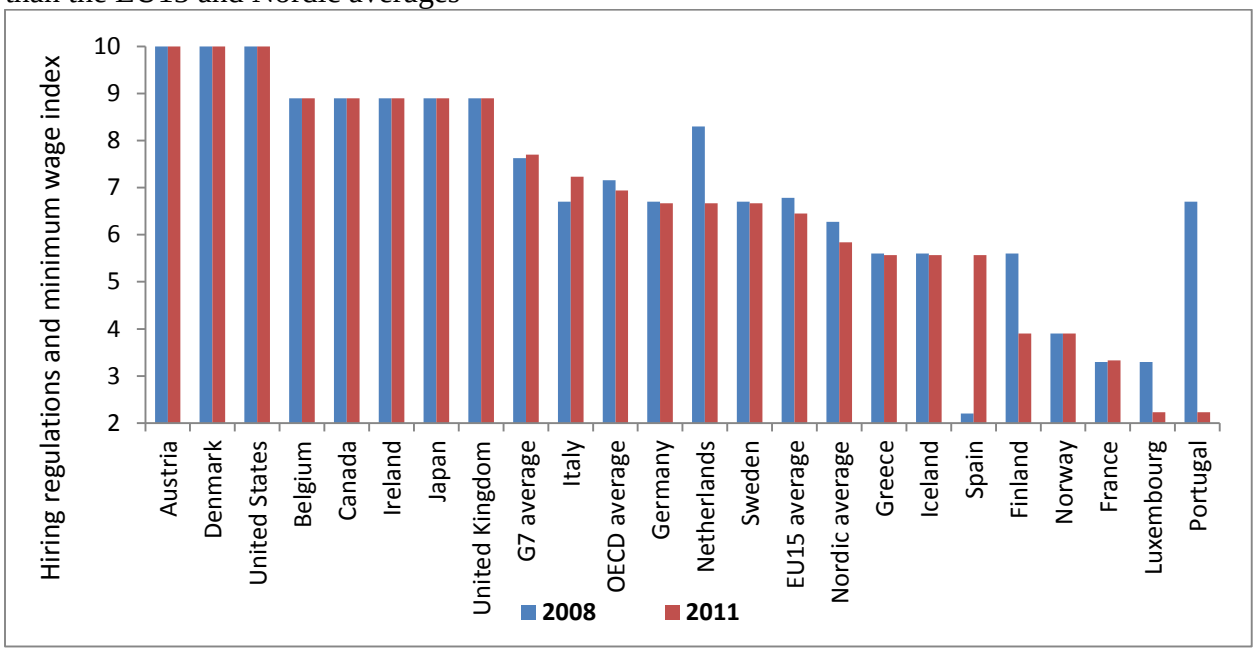
Hiring regulations and the minimum wage in Sweden

The World Bank Group's *Doing Business* project provides annual data on the availability of fixed-term contracts, on the permitted duration of such contracts and on the minimum wage as stipulated in the labor laws of 189 economies. Using *Doing Business* data, the *Economic Freedom of the World* report creates an index to assess the flexibility of hiring regulations and the minimum wage in 144 economies. Values for this index for 2008 and 2011 show no change between those two years for Sweden (Figure 5). Values for 2011 show that Sweden's hiring regulations and minimum wage are more flexible than the averages for the EU15 and other Nordic economies and more flexible than those of Greece, Spain, France, Luxembourg and Portugal. But they are less flexible than the averages for the G7 and OECD and less flexible than those of such competitors as the United States, Japan, and the United Kingdom.

A closer look at the three components of the hiring regulations and minimum wage index in 2013 reveals that Sweden allows fixed-term contracts for permanent tasks and for a maximum duration of

24 months, down from the 36 months allowed until 2008 (Table 2). Although Sweden has no statutory minimum wage (which is reflected by recording a zero for this aspect in the calculation of the index), minimum wages are negotiated as part of the collective agreements at the sectoral level and thus differ across sectors.[7]

Figure 5: Sweden's hiring regulations are less flexible than the OECD average but more flexible than the EU15 and Nordic averages



Source: Gwartney et al. (2013).
Note: The Economic Freedom of the World hiring regulations and minimum wage index is calculated as the average of *Doing Business* data on the three indicators shown in table 2. The index ranges from 1 to 10, higher values indicate more flexible regulations. Countries and country groups are in descending order by the index value in 2011. The Nordic average excludes Sweden.

Among the 20 countries in the EU15, G7 and Nordic region, nine have no limit on the maximum duration of fixed-term contracts, including Denmark, Japan, the United Kingdom and the United States—and therefore have among the most flexible hiring regulations. Among the other economies the maximum length of fixed-term contracts ranges from 12 months in Spain to 60 months in Finland. Like Sweden, three other economies—Germany, Iceland and Luxembourg—set a maximum of 24 months. These figures have remained the same for the majority of the economies since 2008. The exceptions are a few countries that undertook reforms to tighten regulations on

[7] Some examples of sector-level minimum wages are SKr 15,387 for the steel and metal sector, SKr 16,630 for the retail sector and SKr 17,481 for the hotel and restaurant sector (Kullander, 2012). Since the minimum wages set by collective agreements in Sweden do not automatically extend to other sectors, Doing Business takes the labor law as the basis for determining the minimum wage.

hiring—such as Finland, Luxembourg, the Netherlands and Portugal—or to make them more flexible—such as Italy and Spain.[8]

Besides Sweden, Denmark is the only other country in the EU15, G7 or Nordic region that has no statutory minimum wage. Among the other 18 economies the ratio of the minimum wage to the value added per worker ranges from 12 percent in Austria to 41 percent in Italy. There was no substantial change in the minimum wage ratio between 2008 and 2013 in these country groups except in Greece, where the ratio increased by 31 percent in 2011 before changing back to 34 percent in 2013.[9]

Taken together, Sweden's regulations on hiring and the minimum wage are not too restrictive and indeed are more flexible than those in many comparator economies. But the potential adverse consequences of fixed-term contracts of short duration, and the fact that Sweden's labor law stipulates a shorter duration than the labor law of the majority of other economies in the sample, suggest room for policy action.

Table 2: Features of hiring regulations and the minimum wage in countries in the EU15, G7 and Nordic region, 2013

Are fixed-term contracts prohibited for permanent tasks?	Yes: **Finland**, France, Greece, Luxembourg, **Norway**, Portugal, Spain. No: Austria, Belgium, Canada, **Denmark**, Germany, **Iceland**, Ireland, Italy, Japan, Netherlands, **Sweden**, United Kingdom, United States.
What is the maximum cumulative duration of fixed-term contracts?	No limit: Austria, Belgium, Canada, **Denmark**, Greece, Ireland, Japan, United Kingdom, United States. 50–60 months: **Finland**, Portugal. 40–49 months: –Italy, **Norway**. 30–39 months: Netherlands. 20–29 months: Germany, **Iceland**, Luxembourg, **Sweden**. 10–19 months: France, Spain.
What is the minimum wage ratio?[a]	0: **Denmark, Sweden**. 10–19%: Austria, France, Netherlands, United States. 20–29%: Canada, Germany, Greece, Japan, Luxembourg, Portugal, Spain, United Kingdom. 30–39%: Belgium, **Finland**, **Iceland, Ireland, Norway**. 40–49%: Italy.

Source: World Bank Group, *Doing Business* 2014.
Note: The sample consists of all 20 countries in the EU15, G7 and Nordic region.
a. Ratio of the minimum wage for a trainee or first-time employee to the average value added per worker.

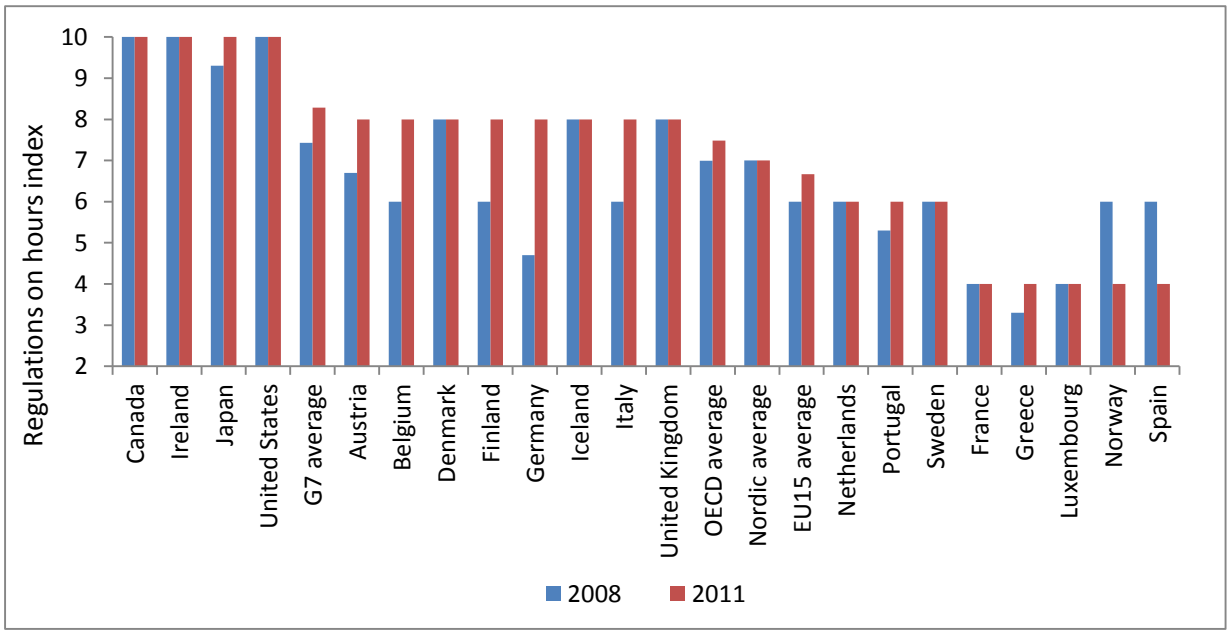
[8] For details on labor market reforms in all economies since 2004, see the *Doing Business* website at http://www.doingbusiness.org.
[9] Other economies with a relatively large increase in the minimum wage ratio between 2008 and 2013 are Italy and Norway with 10 percent, Ireland with 15 percent and Japan with 17 percent.

2.3. Regulations on hours

Overly restrictive regulations on working hours limit the choices of firms and employees in arranging a work schedule that works best for them and can therefore adversely affect their performance. Flexible regulations on working hours—regulations that do not limit the work schedule to the standard workweek and working hours—allow firms to adjust their labor supply to periodic changes in demand and thus better utilize their production capacity and increase their productivity. Such regulations also allow employees to better coordinate their work and life responsibilities and can boost their job performance (Golden, 2011; White et al., 2003).

An index of regulations on hours, based on data for five *Doing Business* indicators, shows that Sweden has stricter regulations on hours than the majority of the countries in the sample—only France, Greece, Luxembourg, Norway and Spain have stricter regulations (Figure 6). Half the countries, including Sweden, have not changed statutory working hours between 2008 and 2011. Eight countries—Japan, Austria, Belgium, Finland, Germany, Italy, Portugal and Greece—undertook reforms making regulations on working hours more flexible between 2008 and 2011, while Norway and Spain made them more restrictive.

Figure 6: Sweden has stricter regulations on hours than the majority of countries in the EU15, G7 and Nordic region



Source: Gwartney et al. (2013).
Note: The Economic Freedom of the World regulations index on hours is calculated as the average of *Doing Business* data on the five indicators shown in table 3. The index ranges from 1 to 10; higher values indicate more flexible regulations. Countries and country groups are in descending order by the index value in 2011. The Nordic average excludes Sweden.

An overview of the 2013 data on the five indicators of regulations on hours reveals that Sweden has no restrictions on night work and that it permits the workweek to be temporarily extended to 50 hours or more when production necessitates (Table 3). But among the sample of 20 countries, Sweden is one of 8—along with France, the Netherlands and Norway—that have restrictions on work on the "weekly holiday". In Sweden workers' weekly rest is required to take place on weekends and exemptions are made only under special circumstances.

With an average of 25 working days of mandatory annual leave for employees with 1, 5 and 10 years of tenure, Sweden is considered to have semi-rigid regulation of annual leave. By comparison, the average is 25 days for other Nordic economies, 23.9 for the EU15 and 18.2 for the G7. In Sweden, along with 4 other economies in the sample, the workweek can extend to 5.5 days, while in 14 it can extend to 6 days. Only in Greece can the workweek not extend beyond 5 days.

Table 3: Features of regulations on hours in countries in the EU15, G7 and Nordic region, 2013

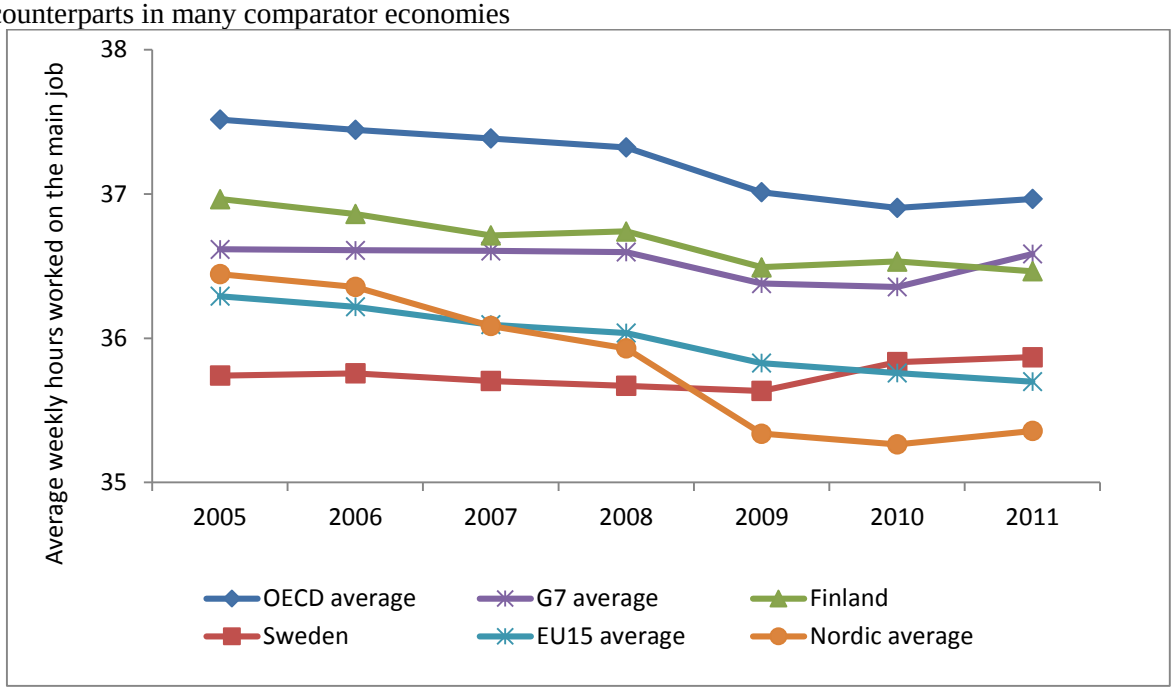
Can the workweek extend to 50 hours or more for 2 months a year to respond to a seasonal increase in production?	Yes: Austria, Belgium, Canada, **Denmark**, **Finland**, Germany, Greece, **Iceland**, Ireland, Italy, Japan, Netherlands, **Norway**, Portugal, Spain, **Sweden**, United Kingdom, United States. No: France, Luxembourg.
Are there restrictions on night work in segments of the manufacturing sector where continuous operations are economically necessary?	Yes: Italy, Netherlands, **Norway**, Spain. No: Austria, Belgium, Canada, **Denmark**, **Finland**, France, Germany, Greece, **Iceland**, Ireland, Japan, Luxembourg, Portugal, **Sweden**, United Kingdom, United States.
Are there restrictions on "weekly holiday" work in segments of the manufacturing sector where continuous operations are economically necessary?	Yes: Belgium, France, Greece, Luxembourg, Netherlands, **Norway,** Portugal, **Sweden**. No: Austria, Canada, **Denmark**, **Finland**, Germany, **Iceland**, Ireland, Italy, Japan, Spain, United Kingdom, United States.
What is the maximum number of working days per week?	6 days: Belgium, Canada, **Denmark**, **Finland**, France, Germany, **Iceland**, Ireland, Italy, Japan, Portugal, **Norway**, United Kingdom, United States. 5.5 days: Austria, Luxembourg, Netherlands, Spain, **Sweden** 5 days: Greece.
What is the mandatory average paid annual leave (in working days) for workers with 1, 5 and 10 years of tenure?	**Finland** and France, 30; United Kingdom, 28; Austria, **Denmark**, Luxembourg and **Sweden**, 25; Germany and **Iceland**, 24; Greece, Spain and Portugal, 22; **Norway**, 21; Belgium, Ireland, Italy and Netherlands, 20; Japan, 15; Canada, 10; United States, 0.

Source: World Bank Group, *Doing Business* 2014.
Note: The sample consists of all 20 countries in the EU15, G7 and Nordic region.

In brief, Sweden's regulations on hours—encompassing rules on weekly hours of work, night work, work on the weekly holiday and mandatory paid annual leave—are stricter than those of the majority of comparator economies. This appears to be a result of more restrictive regulations on work on the weekly holiday and paid annual leave. It should be noted, however, that *Doing Business* measures

the statutory restrictions on hours, and de facto hours can therefore differ from the hours that it reports. According to Kullander (2012), the maximum statutory length of the workweek in Sweden has always been 40 hours. But the agreed length of the workweek in 2011 was 37.2 hours and the actual number of weekly hours worked on the main job by full-time employees averaged 35.8.[10] Until 2009 Sweden had a lower number of weekly hours worked on the main job than the averages for the OECD, G7 and EU15 and for other Nordic economies (Figure 7). But during the crisis the number of hours worked rose above the Nordic and EU15 averages, reflecting the agreements between unions and employers to allow longer hours to save jobs.

Figure 7: Full-time employees work fewer hours per week on their main job in Sweden than their counterparts in many comparator economies



Source: OECD (2014b). Note: The Nordic average excludes Sweden.

2.4. Regulations on redundancy

The main objective of regulations on redundancy is to protect employees from unfair dismissals, though they can also have other benefits for both employees and employers. For example, they can lead to higher productivity by increasing the job security and satisfaction of employees, the cooperation between employee and employer and the training incentives of both parties because they

[10] Doing Business records only the regulations stipulated in labor law. The only exception is when collective bargaining agreements cover more than 50 percent of the manufacturing sector and the agreed terms automatically extend to firms that are not party to the agreements, in which case Doing Business records the regulations set by the collective bargaining agreements. Since this is not the case in Sweden, the labor law is taken as the basis.

are in a permanent contractual agreement with high dismissal costs (von Below and Thoursie, 2008; Mortensen and Pissarides, 1999).

Redundancy regulations have been shown to have two opposing effects on employment: on the one hand they increase employment by decreasing layoffs; on the other hand they decrease employment by decreasing turnover and the incentives of firms to hire new employees. Their impact on total employment is therefore ambiguous (Lazear, 1990; von Below and Thoursie, 2008). But there is strong evidence that overly restrictive redundancy rules distort the production choices of firms and reduce labor mobility and productivity (Kugler and Saint-Paul, 2004; Autor et al., 2007; Bassanini and Marianna, 2009). When redundancy is too costly, firms will retain unproductive workers at the expense of productive new hires (Blanchard and Portugal, 2001). And where the last-in-first-out rule applies, labor mobility will decline because the risk of changing jobs increases, since employees will lose the privileges of seniority in the new job (von Below and Thoursie, 2008).

A comparative overview of redundancy regulations

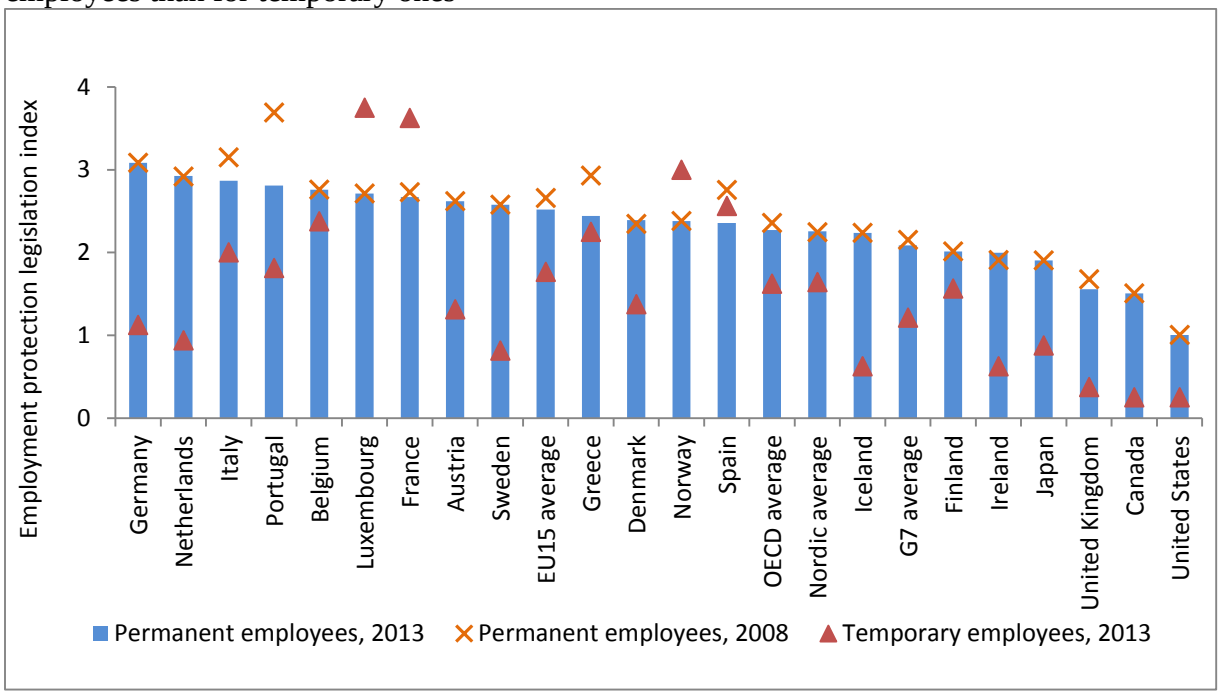
Sweden's labor law stipulates a high level of protection for permanent employees compared with that in many other OECD countries. Among the 20 EU15, G7 and Nordic economies, Sweden provides the ninth highest level of protection for permanent employees as measured by the OECD employment protection legislation index – commonly referred to as EPL (Figure 8). Comparison of the level of employment protection for permanent employees in 2008 and 2013 reveals that six of the economies—France, Greece, Italy, Portugal, Spain and the United Kingdom—responded to the 2008–09 crisis by relaxing the redundancy rules for permanent employees. Eleven others, including Sweden, made no changes, while Denmark, Ireland and the Netherlands made the redundancy rules slightly stricter.

A distinguishing feature of Sweden's employment protection legislation is that it provides high protection for permanent employees but very low protection for temporary employees. Indeed, among the EU15, G7 and Nordic economies, Sweden has the third largest difference in protection levels between permanent and temporary employees after the Netherlands and Germany (see Figure 8). While the majority of the countries have stricter redundancy rules for permanent employees than for temporary ones, the difference is less pronounced than in these three economies. Only four countries in the sample—France, Luxembourg, Norway and Spain—provide a higher level of protection for temporary employees than for permanent ones.

As will be analyzed in depth subsequently in this paper, a large disparity in protection levels between permanent and temporary employees can increase the share of temporary workers in total employment and create a dual labor market in which permanent employees enjoy secure and stable jobs with greater training opportunities and better prospects while temporary workers—who tend to be young, female and low skilled—bear the burden of economic adjustments and are largely

marginalized (Boeri and van Ours, 2013; OECD, 2013, 2014b). It has also been shown that where temporary employees have much lower levels of employment protection than their permanent peers, they also have lower job satisfaction (OECD, 2014b). In addition, in countries with very high levels of protection for permanent employees, the probability of transitioning from temporary to permanent employment is lower (Güell and Petrongolo, 2007), productivity is lower, and inequality is higher (Bassanini et al., 2008; Dolado et al., 2012; OECD, 2014b).

Figure 8: Sweden provides a much higher level of employment protection for permanent employees than for temporary ones



Source: OECD (2014b).
Note: The OECD employment protection legislation index ranges from 0 (least stringent) to 6 (most stringent). Countries and country groups are in descending order by level of protection for permanent employees in 2013. The Nordic average excludes Sweden.

Evidence on redundancy regulations from the Doing Business data

Doing Business provides detailed data on redundancy rules and the cost of redundancy that are similar to those used in calculating the OECD employment protection legislation index for permanent employees. The *Doing Business* data include 10 indicators on notification, priority and retraining rules as well as notice periods and severance payments stipulated in labor laws. According to these data, among the 20 EU15, G7 and Nordic countries, 12, including Sweden, do not require employers to notify or get the approval of a third party (such as a government agency) before dismissing one redundant worker (Table 4). Thirteen of the countries, including Sweden, require

employers to notify a third party before dismissing a group of workers, though among these only Greece and the Netherlands require employers to obtain the approval of the third party.

Table 4: Features of regulations on redundancy in countries in the EU15, G7 and Nordic region, 2013

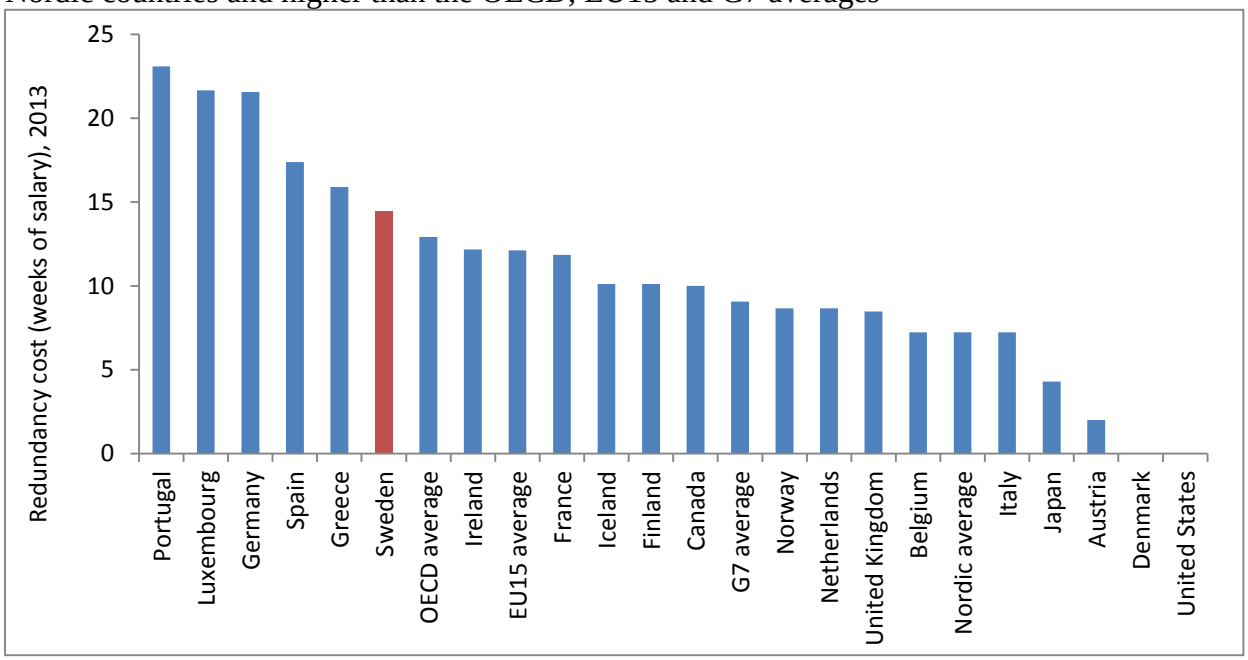
Is dismissal due to redundancy allowed by law?	Yes: All countries in EU15, G7 and Nordic region. No: 0 countries in the sample.
Is the notification of a third party required for the dismissal of one worker?	Yes: Austria, **Finland**, Germany, Japan, Luxembourg, Netherlands, Portugal, Spain. No: Canada, Belgium, **Denmark**, France, Greece, **Iceland**, Ireland, Italy, **Norway**, **Sweden**, United Kingdom, United States.
Is the approval of a third party required for the dismissal of one worker?	Yes: Netherlands. No: All but Netherlands.
Is the notification of a third party required for the dismissal of a group of workers?	Yes: Austria, **Finland**, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, Portugal, Spain, **Sweden** No: Canada, Belgium, **Denmark**, **Iceland**, **Norway**, United Kingdom, United States.
Is the approval of a third party required for the dismissal of a group of workers?	Yes: Greece and Netherlands. No: All but Greece and Netherlands.
Is the employer required to retrain an employee before he or she can be made redundant?	Yes: **Finland**, France, Germany, Italy, Japan, Netherlands, **Norway**, Portugal, **Sweden**. No: Austria, Belgium, Canada, **Denmark**, Greece, **Iceland**, Ireland, Luxembourg, Spain, United Kingdom, United States.
Are there priority rules in redundancy?	Yes: Austria, **Finland**, France, Germany, Greece, Italy, Netherlands, **Norway**, **Sweden**. No: Belgium, Canada, **Denmark**, **Iceland**, Ireland, Japan, Luxembourg, Portugal, Spain, United Kingdom, United States.
Are there priority rules in reemployment?	Yes: Austria, **Finland**, France, Italy, Luxembourg, **Norway**, Portugal, **Sweden**. No: Belgium, Canada, **Denmark**, Germany, Greece, **Iceland**, Ireland, Japan, Netherlands, Spain, United Kingdom, United States.
What is the notice period for a redundancy dismissal (in weeks of salary)?[a]	Luxembourg, 17.3; **Sweden**, 14.4; **Finland** and **Iceland**, 10.1; Germany, 10; Netherlands and **Norway**, 8.7; Portugal, 7.9; Belgium, France and Italy, 7.2; United Kingdom, 5.3; Canada, 5; Japan, 4.3; Ireland, 4; Spain, 2.1; Austria, 2; Denmark and United States, 0. Averages: EU15, 6.9; G7, 5.6; Nordic, 7.2.
What is the severance payment for a redundancy dismissal (in weeks of salary)?[a]	Greece, 15.9; Portugal and Spain, 15.2; Germany, 11.6; Ireland, 8.2; Canada, 5; France, 4.6: Luxembourg, 4.3; United Kingdom, 3.1; Austria, Belgium, **Denmark**, **Finland**, **Iceland**, Italy, Japan, Netherlands, **Norway**, **Sweden** and United States, 0. Averages: EU15, 5.2; G7, 3.5; Nordic, 0.

Source: World Bank Group, Doing Business 2014. Note: The sample consists of all 20 countries in the EU15, G7 and Nordic region. The Nordic average excludes Sweden. a. Average for workers with 1, 5 and 10 years of tenure.

Along with Finland and Norway, Sweden is among the nine countries in the sample that require employers to give priority to workers based on their seniority, marital status or other specific criteria—and also among the nine countries that require employers to retrain redundant workers before they can be dismissed (see Table 4). Sweden's priority rule is based on the seniority principle: the employee hired last will be dismissed first. This last-in-first-out principle was changed in 2001 to allow employers with 10 or fewer employees to exempt two employees from the seniority rule (von Below and Thoursie, 2008). Again along with Finland and Norway, Sweden is one of the eight economies in the sample that require employers to first offer available positions to workers previously dismissed for redundancy. Thus it can be said that Sweden's notification rules are more relaxed while its priority rules are stricter than those of the majority of the other 19 countries in the EU15, G7 and Nordic region.

The mandatory notice period and severance payment together make up the redundancy cost measure, expressed in weeks of salary, which is calculated as the average for workers with 1, 5 and 10 years of tenure. Sweden's mandatory notice period, at 14.4 weeks of salary, is the second highest in the sample after Luxembourg's, at 17.3 weeks of salary (see Table 4). The average notice period is only 6.9 weeks in the EU15, 5.6 in the G7 and 7.2 in the other Nordic countries. Denmark and the United States require no notice before dismissing a redundant worker.

Figure 9: The cost of making a worker redundant in Sweden is higher than the cost in all other Nordic countries and higher than the OECD, EU15 and G7 averages



Source: World Economic Forum (2014), based on Doing Business 2014. Redundancy cost is the average mandatory notice period and severance payment for workers with 1, 5 and 10 years of tenure. The Nordic average excludes Sweden.

Along with 10 other countries, including all other Nordic countries, Sweden has no legal requirement for severance payments. In Sweden collective bargaining agreements provide for fee-based insurance schemes, funded by employer contributions. Employers therefore do not need to provide a severance package when making a worker redundant. These insurance schemes, viewed as best practice by the OECD, ease the cost of redundancy for employers while ensuring that workers receive some compensation after their employment ends (World Bank, 2014). The average severance payment is 5.2 weeks of salary in the EU15, 3.5 in the G7 and 0 in the Nordic region (Table 4).

Data combining the mandatory notice period and severance payment into the overall cost of redundancy, as published in the World Economic Forum's *Global Competitiveness Report 2014*, show that Sweden has the sixth highest cost in the sample, at 14.4 weeks of salary (Figure 9). This surpasses the averages for the OECD (12.9), EU15 (12.1), G7 (9.1) and other Nordic countries (7.2). Portugal has the highest redundancy cost, at 23.1 weeks of salary, followed by Luxembourg (21.7) and Germany (21.6). Denmark and the United States have no redundancy cost.

Implications for policy

All in all, the data on redundancy regulations from the OECD and Doing Business reveal that some aspects of redundancy rules in Swedish labor law are much stricter than those in some comparator economies. These include a longer notice period, priority rules applying for dismissals and reemployment and a requirement to retrain redundant workers before they can be dismissed. Another important issue is that Sweden's redundancy regulations provide strong protection for permanent employees at the expense of temporary employees, increasing the risk of a fragmented labor market in which permanent employees enjoy high security and promising job prospects while temporary employees are largely marginalized.

Because rigid redundancy regulations and dual labor markets have been shown to impose significant costs on the economy, these issues may need the urgent attention of policy makers. One recommendation that resonates in the recent literature is to equalize the redundancy regulations for all types of contracts at a lower level. But relaxing redundancy regulations for all employees without appropriate measures to protect the unemployed may not be compatible with the Swedish tradition of strong solidarity and social awareness. A possible solution is offered by Denmark's flexicurity model, which makes it easy to dismiss an employee but provides a strong safety net for the unemployed through unemployment insurance. The flexicurity model essentially combines three policies: flexible hiring and redundancy rules, a generous social safety net and active labor market policies (Andersen, 2012). This model has already been implemented in Sweden to a certain extent and thus could be further explored and developed to address the current issues in the country's labor market.

3. The Relationship between Labor Market Regulations and Outcomes

Employment protection legislation is intended to protect workers from unfair treatment by employers, to counter imperfections in financial markets that limit workers' ability to insure themselves against job loss and to encourage workers' commitment to firms and firms' investment in human capital. At the same time, however, employment protection legislation that is too strict can hinder the mobility in the labor market and the allocation of labor to the most productive jobs, reducing productivity and growth (Scarpetta, 2014).

Several studies suggest that excessively strict employment protection legislation reduces workers' exit rates from employment and unemployment. Such employment protection legislation is found to reduce employment, with the most adverse impact being on youth, marginal workers and unskilled workers (Heckman and Pagés, 2004). High levels of protection for permanent employees can also contribute to greater inequality in the labor market, exacerbating the differences between workers with stable, long-term employment and workers in insecure, temporary jobs with no easy access to permanent employment.

During recent years, in response to the 2008–09 crisis, several EU and OECD countries have undertaken substantial reforms in labor market legislation with the aim of containing the short-term impact of the crisis while at the same time tackling more structural concerns (OECD, 2013). These reforms included employment protection legislation measures aimed at decreasing the discrepancy in the degree of protection between permanent and temporary employees to reduce labor market segmentation. Between 2008 and 2013 there was a visible reduction in the level of protection for permanent employees—as measured by the OECD employment protection legislation index—in several countries, including Greece, Italy, Portugal, Spain and the United Kingdom.[11] In Sweden, by contrast, the level of employment protection as measured by the OECD index remained constant, as it did in such countries as Austria, Belgium, Finland and Luxembourg (European Commission, 2013).

The analysis that follows focuses on the links between labor regulations and several labor market outcomes in Sweden: the unemployment rate and annual hours worked per worker; temporary and part-time employment (voluntary and involuntary); and entrepreneurship and self-employment.

3.1. Labor cost and unemployment

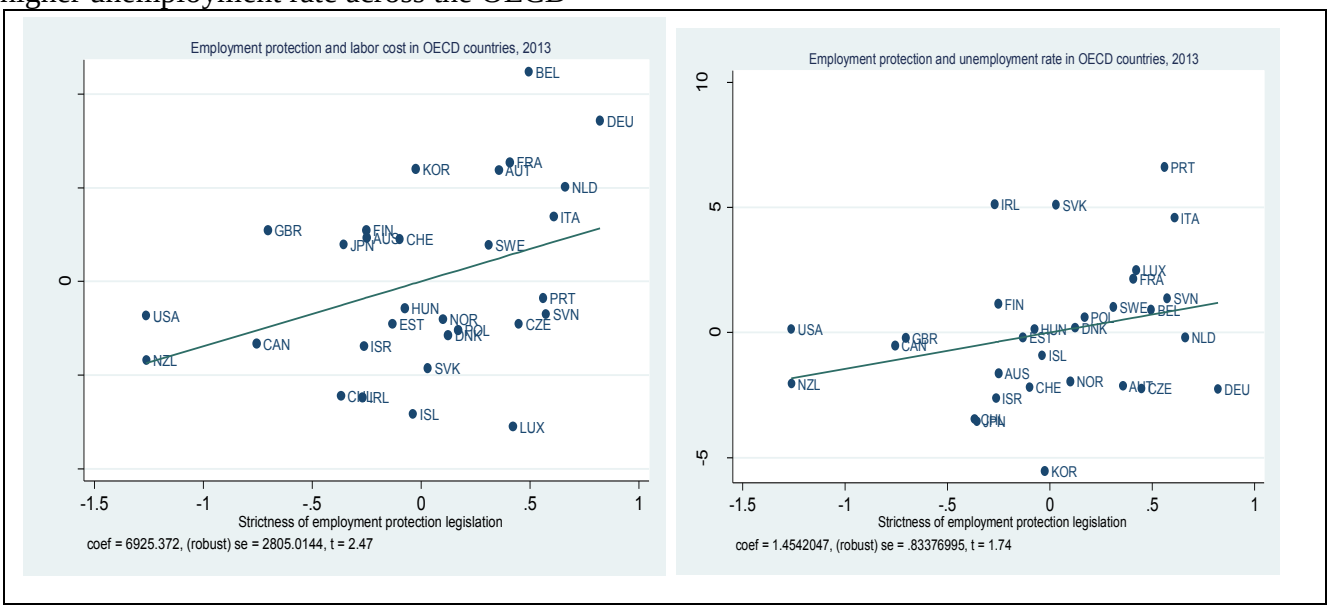
Economic theory does not provide clear-cut guidance on the net effect of employment protection laws on unemployment because such laws both decrease layoffs, which *reduces* unemployment, and decrease the demand for new hires because of the lower number of separations and higher cost of

[11] There was also a visible reduction in the level of protection for permanent employees as measured by the OECD employment protection legislation index in Estonia, Greece, Hungary, Italy, the Slovak Republic, Slovenia and Spain.

employment, which *increases* unemployment (Lazear, 1990; Hopenhayn and Rogerson, 1993). But a large number of empirical studies provide strong evidence that the net impact of strict employment protection laws on unemployment is to increase it (Blanchard and Wolfers, 2000; Addison and Teixeira, 2001; Botero et al., 2004; Blanchard, 2006; Feldmann, 2009; Blanchard et al., 2013). This effect is shown to be particularly strong for structural unemployment as well as for youth and female unemployment.

There also appears to be a strong positive correlation between strict employment laws and the duration of unemployment (Blanchard et al., 2013). The reason is that strict employment protection, by decreasing the risk of being dismissed, increases the bargaining power of employed workers and thus pushes up wages, raises the cost of labor and reduces firms' demand for new hires. The impact of strict employment protection on the probability of being hired seems to be particularly strong for workers with no experience or no strong credentials indicating their productivity level, such as new labor market entrants or the long-term unemployed.

Figure 10: Stricter employment protection legislation is associated with a higher labor cost and a higher unemployment rate across the OECD



Source: OECD (2014b).
Note: Greece and Spain are excluded from the regression because they are outliers; the relationship is stronger when they are included. The analysis controls for the effect of GDP per capita on the unemployment rate and labor cost. The Employment protection legislation index of OECD ranges from 0 (least stringent) to 6 (most stringent). Labor cost refers to the total gross labor cost before taxes (in USD PPP exchange rate). Unemployment rate is the annual rate of unemployment in percent.

Figure 10 provides supporting evidence for the view that stricter employment protection is associated with a higher cost of labor and higher unemployment rate across OECD economies. In addition, while these results are for 2013, they also hold for the pre-crisis period and, for the unemployment rate, are stronger during that period. As shown in Figure 10, Sweden has higher employment protection than all other Nordic economies and, with only one exception, both a higher unemployment rate and a higher labor cost. Another point of concern for Sweden is its high labor cost compared with that in many other OECD economies, which might have alarming consequences for its future competitiveness.

3.2. Temporary and part-time employment

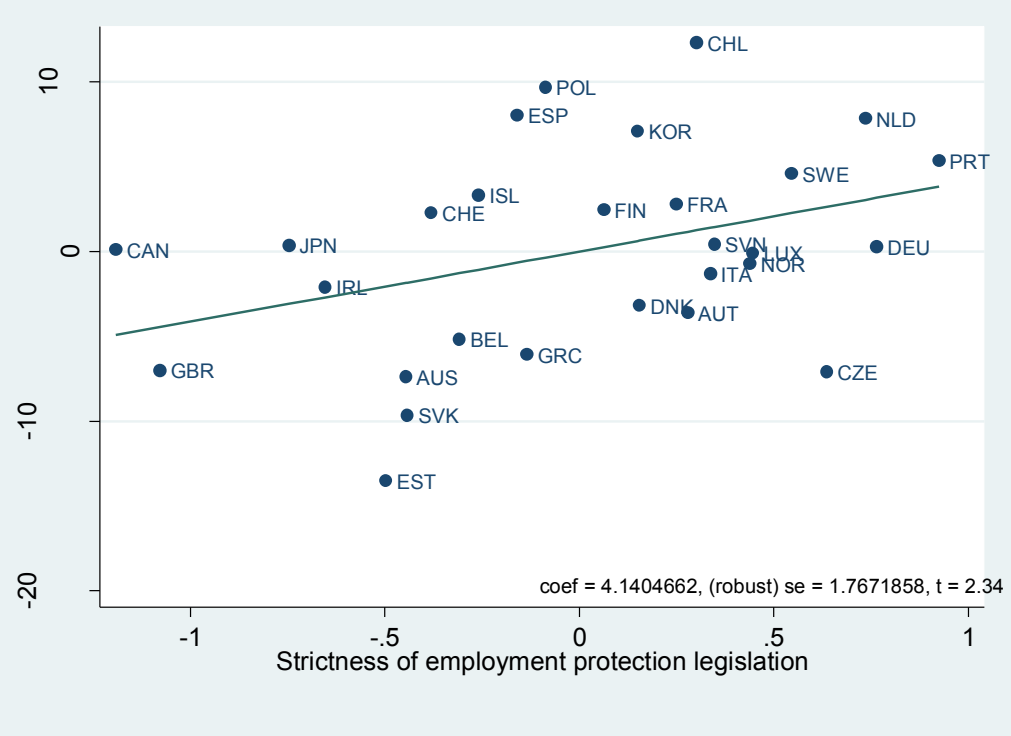
In recent decades most European and OECD economies implemented labor market reforms inspired by the belief that greater labor market flexibility would lead to the creation of more new jobs and thus to a lower unemployment rate. One aspect of these reforms was increased flexibility in the use of temporary contracts and part-time employment. These contracts were considered to be a stepping-stone toward stable jobs for youth and new labor market entrants. But greater flexibility to hire workers through fixed-term or part-time contracts, when not coupled with greater flexibility in employment regulations applying to all employed workers, may lead to segmentation in the labor market. Strict employment protection for permanent employees may in fact induce firms to circumvent restrictive regulations relating to hiring and redundancy by contracting out work to temporary or part-time workers.

Temporary employment

Analysis confirms the hypothesis that a high level of protection for permanent employees increases the use of temporary contracts, showing that stricter employment protection legislation for permanent employees is associated with a higher share of temporary workers in total employment in OECD economies (Figure 11). Sweden, along with Portugal and the Netherlands, stands out as having both a higher level of employment protection for permanent employees and a higher share of temporary employment than other EU economies.

In 2013 workers with a temporary contract made up 16 percent of the total employment in Sweden, almost three times the share in the United Kingdom (6 percent) and higher than the averages for the EU15 (14 percent) and other Nordic economies (12 percent). In Sweden, as in other European countries, temporary employment bore much of the impact of the recent global financial crisis. Temporary employment decreased substantially as a share of total employment after 2008, absorbing the impact of the deterioration in the Swedish economy. It grew slightly with the moderate economic recovery in 2010 and 2011, then stopped growing in 2012 with the worsening of market conditions.

Figure 11: Stricter employment protection legislation is associated with a higher share of temporary workers in the OECD



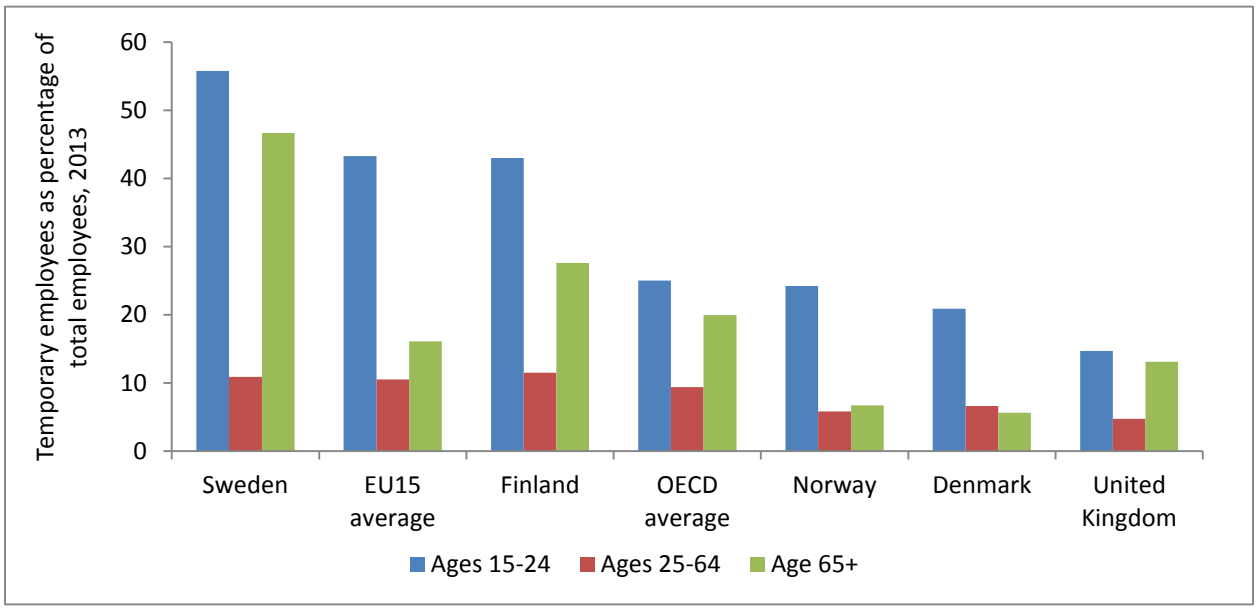
Source: OECD Employment and Labour Market Statistics database, 2014 edition; World Bank, World Development Indicators database, 2014 edition.
Note: The strictness of employment protection legislation is measured using the OECD index on the strictness of regulations on individual and collective dismissals of permanent employees. The index is a synthetic indicator of the strictness of procedures and costs involved in dismissing individuals or groups of workers on regular contracts, with higher values indicating stricter regulations. Data are for 2013. The relationship is significant at the 5 percent level after controlling for GDP per capita.

The incidence of temporary contracts varies across age groups and is particularly high among youth (ages 15–24). In Sweden 55 percent of employed youth have a temporary contract, more than twice the share in Denmark (21 percent) and more than three times the share in the United Kingdom (15 percent). The share of employed youth with a temporary contract in Sweden is also higher than the already high average in the EU15 countries (43 percent) and twice the share in OECD countries (25 percent) (Figure 12).

The large share of young workers with a temporary contract raises concerns about social cohesion, because half of young workers face very different labor market conditions than their pair. Workers with temporary contracts tend to have "second-best jobs" in terms of both employment conditions and job stability, and to be paid less. When there is asymmetry of legislation between temporary and permanent contracts, temporary workers tend to have a higher risk of unemployment, unclear career

progression, narrower access to social protection and pension schemes, limited access to unemployment benefits, unequal access to training and lower wages (Cazes and de Laiglesia, 2014).

Figure 12: Sweden has the highest share of temporary employment among both young workers and older workers in the OECD

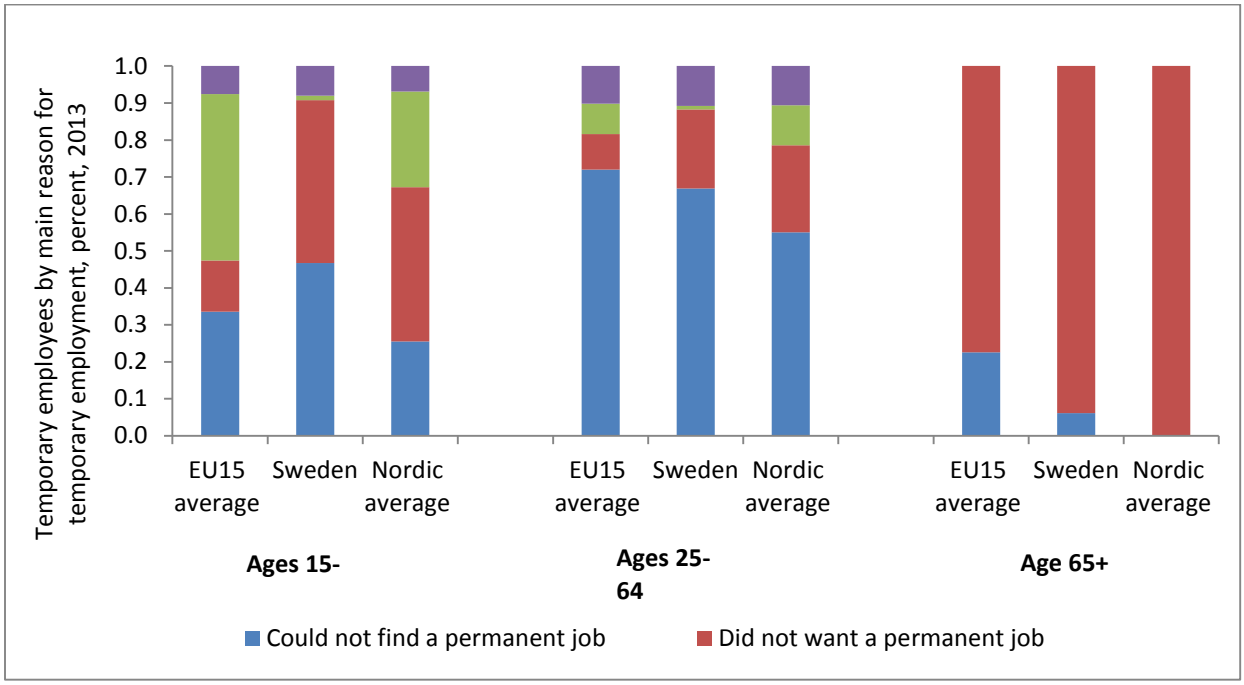


Source: Eurostat, Labour Force Survey database, 2014 edition; OECD Employment and Labour Market Statistics database, 2014 edition.

Unlike other European and OECD countries, Sweden also has a high share of temporary contracts among workers age 65 or above—the highest among Nordic countries. Forty-seven percent of all workers in this age group in Sweden have a temporary contract, compared with 20 percent on average in OECD countries and 28 percent in Finland, the Nordic country with the second highest incidence. The higher concentration of temporary employment among more fragile groups, such as older workers, less educated workers and non-EU immigrants, reinforces the concern about the risk of duality in the labor market already discussed for youth (OECD, 2012).

If temporary employment is the result of voluntary sorting determined by individual preferences and career choices, it is of less concern for researchers and policy makers. A good indicator in this regard is the number of involuntary temporary workers as a percentage of total temporary workers. This percentage is particularly high in Sweden, especially among youth (Figure 13). Fifty-five percent of youth in temporary employment in Sweden did not choose to work with a temporary contract (they either could not find a permanent job or were in a probationary period), compared with an average of 41 percent in the EU15 and 36 percent in other Nordic countries. This confirms the disadvantaged position of youth in the Swedish labor market.

Figure 13: The incidence of involuntary temporary employment is higher in Sweden than in other Nordic countries across age groups



Source: Eurostat, Labor Force Survey database, 2014 edition.
Note: The Nordic average excludes Sweden.

The percentage of adult temporary workers (ages 25–64) in involuntary temporary employment is also higher in Sweden than in other Nordic countries (78 percent of adult temporary workers in Sweden are on involuntary temporary contracts, compared with an average of 69 percent for other Nordic countries). Across all EU15 and Nordic countries, involuntary temporary employment is very low among workers age 65 or above. The fact that most temporary employment for older workers is voluntary mitigates the concern about duality of the labor market for this age group. But achieving some convergence in employment protection legislation between temporary and permanent employment is an important step to facilitate the integration of other fragile groups into the Swedish labor market.

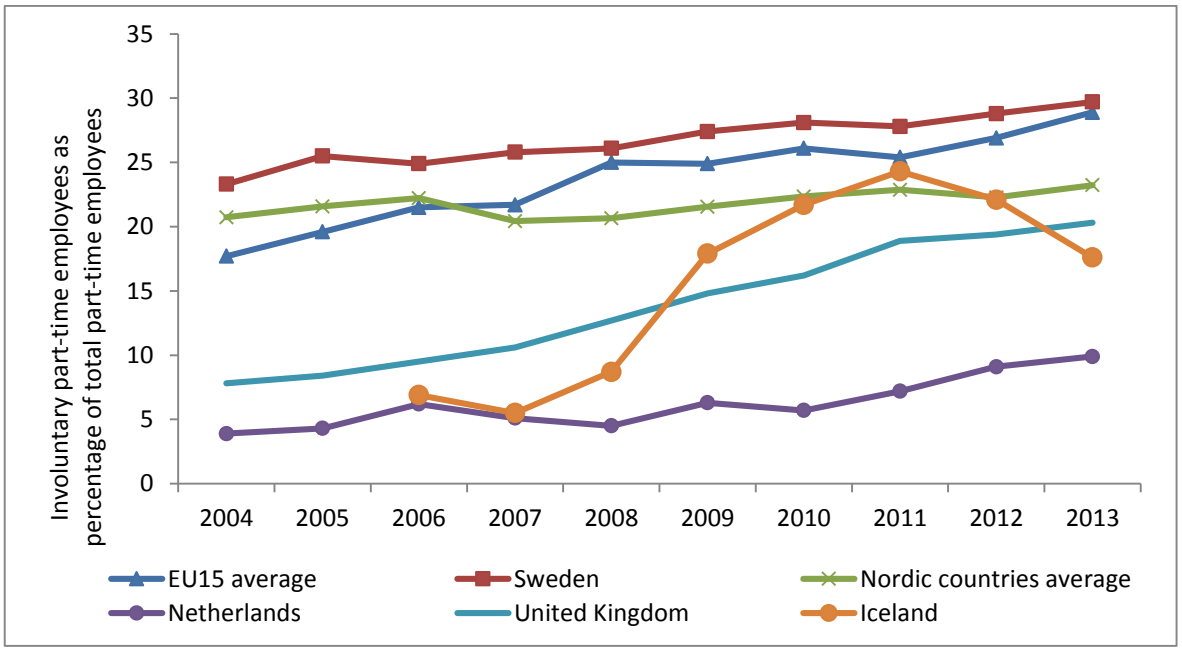
Part-time employment

Another form of nonstandard employment commonly used in EU and OECD countries is part-time employment. Just as with temporary employment, part-time employment can also be the result of a choice made by workers—often with the aim of reconciling work and other commitments, such as education or family life—or the result of a decision made by companies. For example, companies might reduce working hours to cope with changing business conditions or to deal with strict labor regulations and high labor costs. An indicator that can help distinguish whether part-time

employment is driven largely by workers' choices or by dysfunctions in the labor market is the number of involuntary part-time employees as a percentage of total part-time employees.

In 2013, 25 percent of the workforce in Sweden was employed part-time, a percentage similar to the averages in the EU15 (23 percent) and in other Nordic countries (22 percent). In Sweden, however, almost 30 percent of part-time employment was involuntary, compared with an average of 23 percent in other Nordic countries (Figure 14). Among the EU15 countries the Netherlands had the highest share of workers with part-time employment (50 percent). In this country, however, only 10 percent of part-time workers reported being in part-time employment involuntarily. The EU15 countries with the smallest shares of workers with part-time employment were Greece (8 percent) and Portugal (10 percent).

Figure 14: In Sweden growth in involuntary part-time employment was slower than the EU15 average but faster than the Nordic average



Source: Eurostat, Labor Force Survey database, 2014 edition.
Note: The Nordic average excludes Iceland and Sweden.

The evolution of the share of involuntary part-time employment between 2004 and 2013 is interesting in this regard. Involuntary part-time employment in Sweden grew at a remarkably slower pace (increasing from 23 percent of total part-time employment in 2004 to 30 percent in 2013) than the EU15 average (which grew from 18 percent to 29 percent) but faster than the average in other Nordic countries (which rose from 21 percent to 23 percent)—resulting in a wider gap between Sweden and the neighboring countries (see Figure 14). The share of involuntary part-time workers in Sweden is also higher than in comparator countries that experienced significant increases. In the

United Kingdom, for example, the share of part-time workers in involuntary part-time employment grew rapidly over the period, from 8 percent in 2004 to 20 percent in 2013. Yet despite this rapid growth, the United Kingdom still had a smaller share of involuntary part-time workers in 2013 than Sweden did.

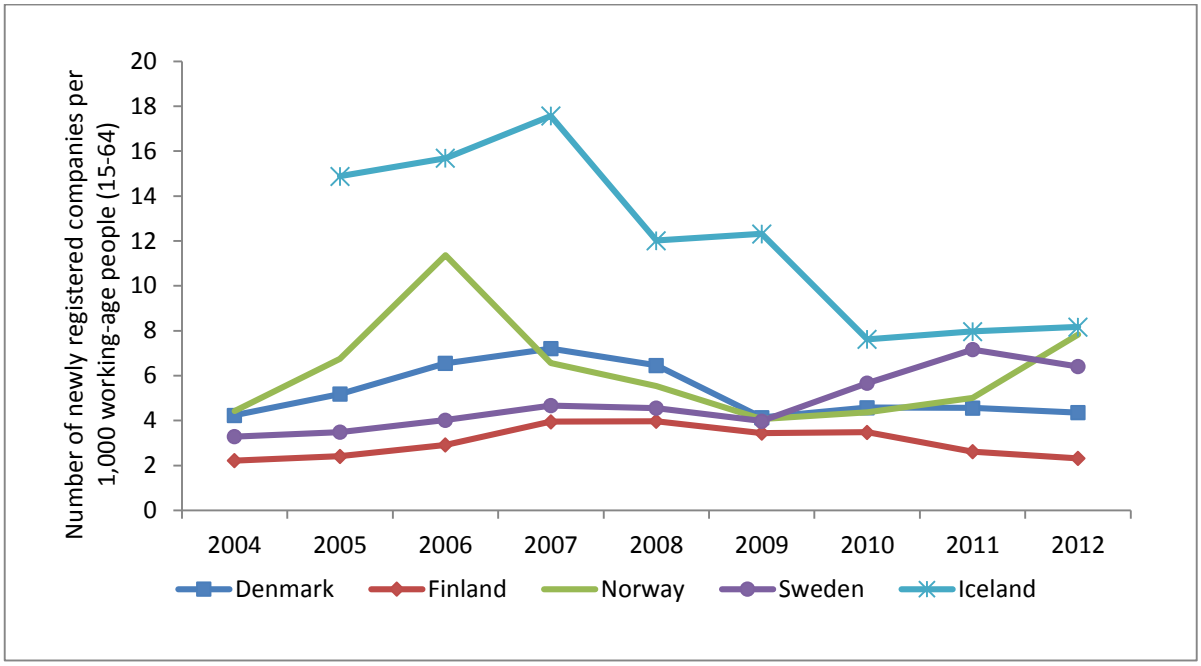
3.3. Entrepreneurship, firm size and self-employment

Entrepreneurship and entrepreneurs are the engines of innovation, economic growth and employment around the world. In the aftermath of the economic crisis, as countries recover from a long period of slow growth and high unemployment, promoting entrepreneurial activities is critical to boost growth and job creation.

In Sweden the entrepreneurship rate is lower than that in other innovation-driven economies (Andersson and Klepper, 2013). This appears to be the result of a combination of factors, including welfare state policies that have tended to encourage and favor employment rather than entrepreneurship (Hansen, 2011). As several studies show, however, labor market regulations can also play an important part. Good labor market regulations promote new business and can help shift workers to the formal sector, where higher productivity boosts economic growth. Restrictive labor market regulations, by contrast, can discourage the development of formal businesses or prevent the growth of existing ones (La Porta and Shleifer, 2008). In more regulated economies those with better business skills and those who know other entrepreneurs are less likely than their counterparts in less regulated economies to become entrepreneurs to pursue a business opportunity. Tighter regulation also exacerbates fear of failure, further discouraging business start-up (Ardagna and Lusardi, 2008).

As discussed in the previous section, Sweden's labor market regulations are characterized by several restrictions. Better understanding the effect of those restrictions on the entrepreneurship rate and improving the policy and regulatory framework underpinning the activities of the private sector are important for promoting entrepreneurship (World Bank, 2014). Some encouraging signs of a more vibrant entrepreneurship environment are visible. Although Sweden lags behind many other OECD economies in the total number of firms and has relatively higher barriers to business entry (World Bank, 2014), the country has shown a good pattern of recovery in new business formation since the crisis. The start-up rate, which remains below precrisis levels in most EU15 countries, has regained pre-crisis levels in Sweden and is even displaying a positive trend (OECD, 2014a). The number of new limited liability companies registered each year in Sweden has increased since 2009, reflecting greater dynamism than in Denmark and Finland and more resilience than in Iceland and Norway (Figure 15).

Figure 15: Sweden saw a big increase in the number of newly registered limited liability companies after the financial crisis

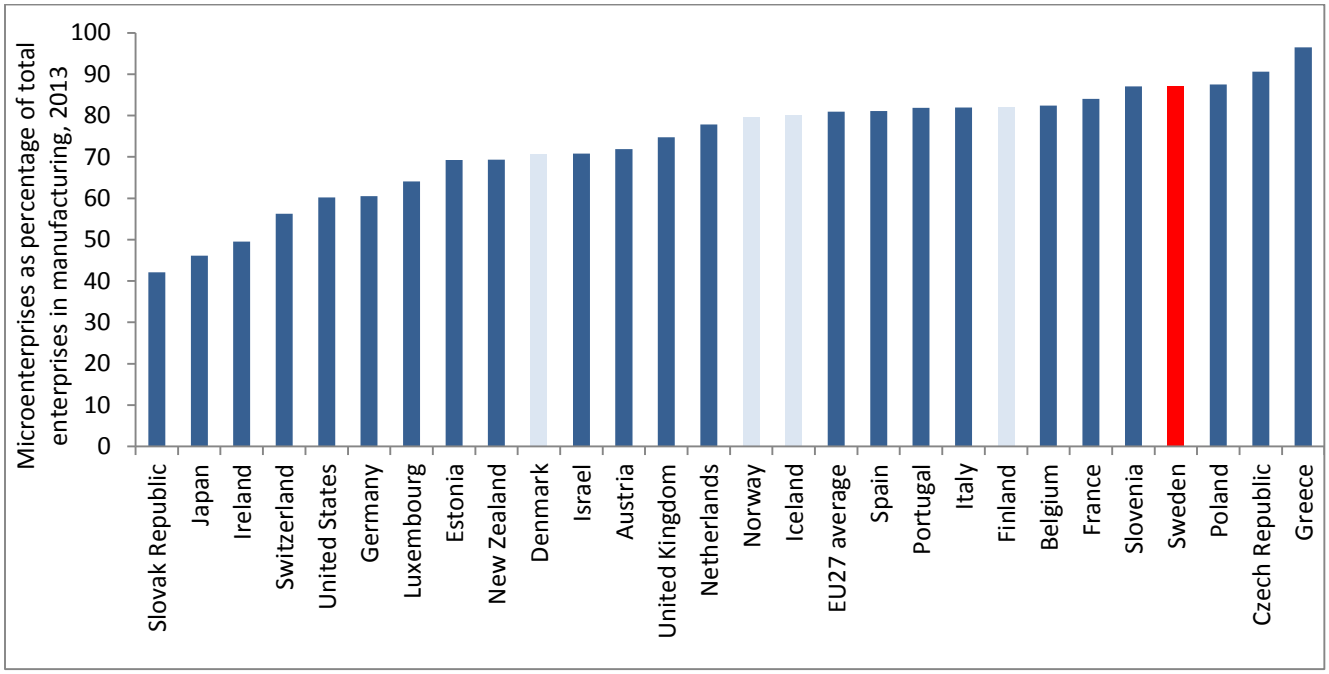


Source: World Bank Group Entrepreneurship Database, 2013 edition.

Having come through the crisis, Sweden now faces the challenge of sustaining and boosting entrepreneurship. Although the creation of new enterprises is crucial to foster economic and employment growth, firms' ability to grow is even more important. In Sweden 87 percent of manufacturing firms are microenterprises—firms with fewer than 10 employees. Among OECD countries only Poland, the Czech Republic and Greece have higher percentages of microenterprises in manufacturing (Figure 16).

The presence of a high share of microfirms is not a bad sign in itself. Small businesses can be important drivers of growth and innovation and can contribute significantly to employment levels and employment growth. As several studies have shown, however, most of the observed economic growth is driven by the growth of existing firms rather than by the creation of new ones (Rajan and Zingales, 1998; Kumar et al., 1999). Understanding the conditions and institutional factors, including labor market regulations, under which firms can grow is therefore extremely important. Isolating the effect of labor market regulations from the effect of other factors in hampering firms' growth in Sweden is beyond the scope of this paper. But a sign of their relevance seems to come from the smaller share of micro firms in manufacturing in countries with more flexible labor market regulations, such as Denmark (71 percent), New Zealand (69 percent) and the United States (60 percent).

Figure 16: Sweden has a larger share of microenterprises among its manufacturing firms than almost any other OECD country

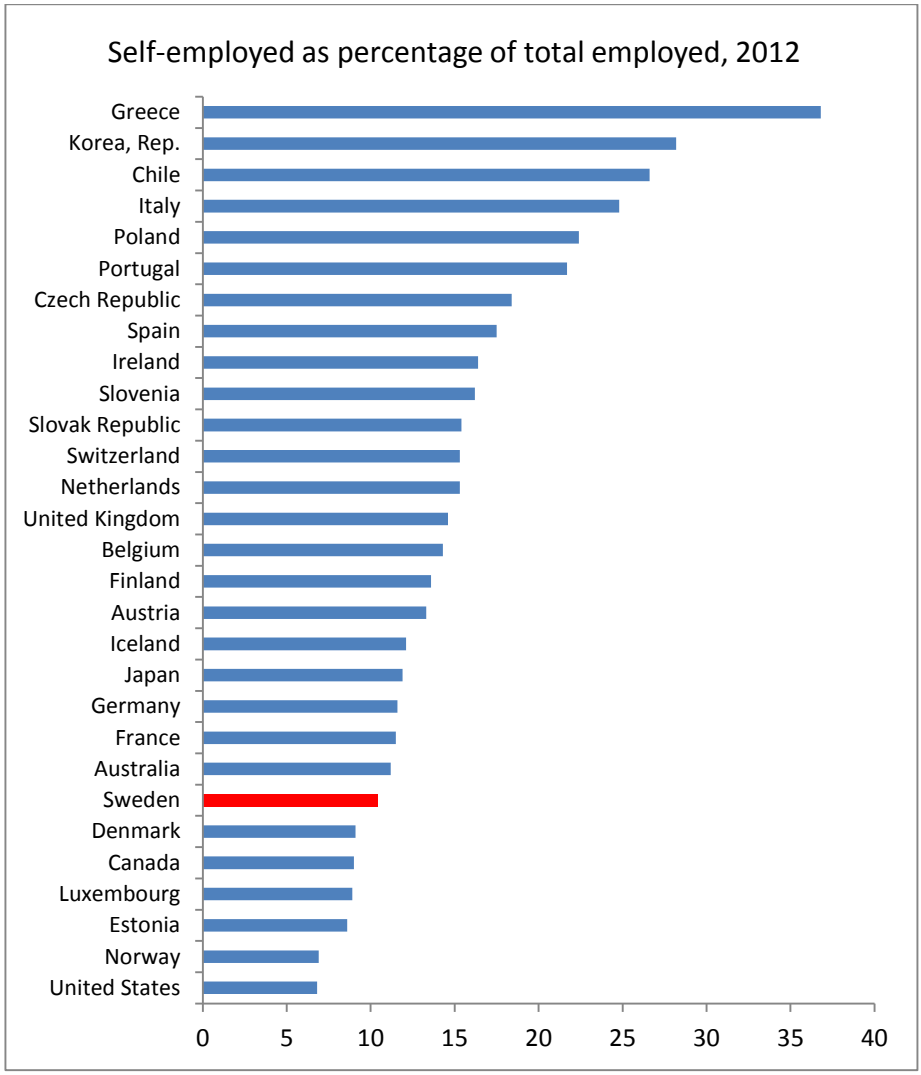


Source: OECD 2014, Enterprises by business size (indicator)
Note: Microenterprises are defined as those with fewer than 10 employees.

Rigid labor market regulations are often also analyzed in terms of their possible effect on self-employment. The evidence in this regard is mixed. Some studies highlight a positive relationship between the strictness of employment protection legislation and the incidence of self-employment (OECD, 1999). Others do not find a robust relationship and rely on a combination of factors to explain the large disparities observed in self-employment rates across OECD countries (Figure 17). These factors include taxation and tax evasion opportunities, the share of workers in the public sector, product market regulations and unemployment benefits (Torrini, 2005; Robson, 2003).

In examining the role of employment protection legislation, two possible and opposite transmission channels are identified. First, where labor markets are rigid, workers are more likely to move toward self-employment than to start and expand a business (Jütting et al., 2008). Second, where there is limited flexibility in the labor market, self-employment may actually mask dependent employment relationships. As mentioned in the discussion of temporary contracts, employers may use self-employment as a means of undermining the intended effects of employment protection legislation and "employ" workers on a self-employment basis to economize on nonwage labor costs or to circumvent the effects of regulations on their ability to hire and fire employees.

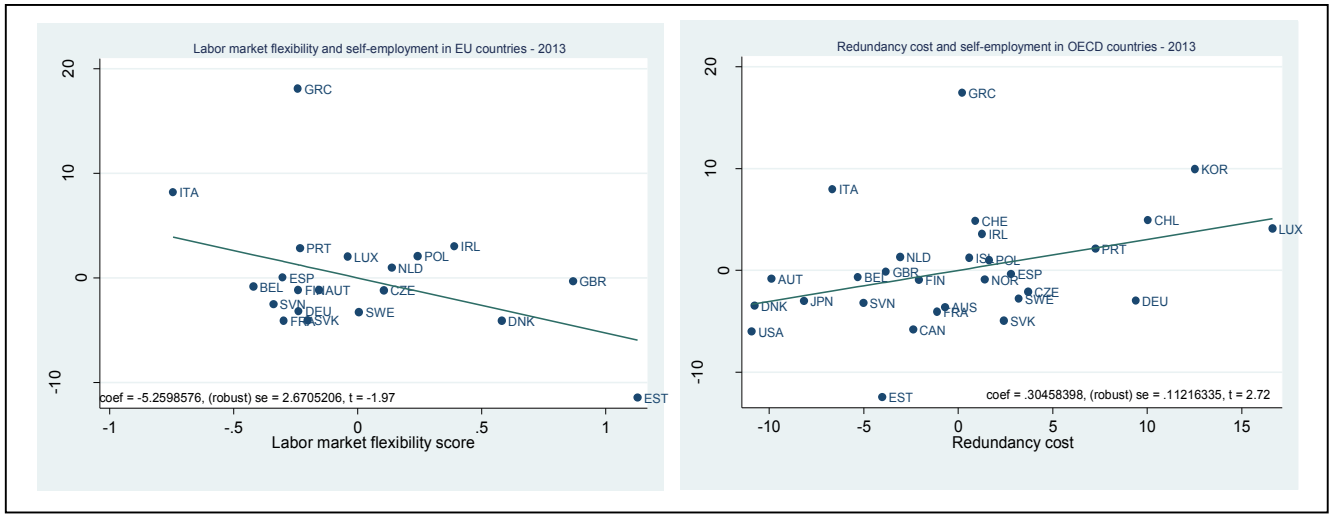
Figure 17: Self-employment rates vary widely across OECD countries



Source: World Bank, World Development Indicators database, 2014 edition.

The existence of a possible positive association between strict labor market regulations and self-employment rates seems to be confirmed by Figure 18, which presents the correlation between labor market flexibility and the share of self-employment in EU and OECD countries. The figure uses two different measures of labor market flexibility. The labor market flexibility index, built by the World Economic Forum, scores countries from 1 to 7, with higher scores indicating higher levels of flexibility. The redundancy cost indicator, developed by *Doing Business*, is the sum of the average notice period and severance payments, expressed in weeks of salary, required when dismissing employees with 1, 5 and 10 years of tenure, with higher values indicating more rigid regulations. In line with the results of other studies, self-employment is higher in countries with a lower level of labor market flexibility and a higher cost of redundancy.

Figure 18: Lower labor market flexibility is associated with a higher rate of self-employment



Source: World Economic Forum (2014); World Bank, World Development Indicators database, 2014 edition.
Note: In the left graph, Greece is an outlier but its removal does not affect the negative correlation in the estimation. Relationships are significant at the 10 percent and 5 percent level, respectively, after controlling for GDP per capita.

A high self-employment rate does not necessarily mean that a labor market is inefficient; the assessment needs to be made in combination with other factors. First, a high share of self-employment may mean a higher level of segmentation in a country to the extent that self-employed workers in a dependent relationship with an employer lack access to the same social protection, salary level or same career opportunities as regular workers.

Second, self-employment is often used as a proxy for informality. Although not all self-employed entrepreneurs operate in the informal sector, the International Labour Organization recognizes the self-employed as part of the informal sector. According to the most recent data, the informal sector in Sweden represents 13.9 percent of the country's GDP. More than 800,000 Swedish citizens perform at least some kind of work in the informal sector each year. A growing informal sector is associated with lower levels of growth and competitiveness. It is also associated with a loss of tax revenue, which can lead to a greater tax burden on registered labor (World Bank, 2014).

4. Conclusion

The aim of this paper was twofold. First, to provide an analysis of recent trends in Sweden's labor market regulations to identify strengths and weaknesses in the regulations and assess how these might affect Sweden's productivity, global competitiveness and the protection and empowerment of its labor force. Second, to analyze the relationship between labor market regulations and labor market outcomes to gain a better understanding of the channels through which regulatory rules may affect these outcomes. The main findings and suggestions of the paper are as follows:

1. Sweden's collective bargaining system has many features that set it apart from those of other economies, including its wealth of experience, self-regulatory governing system, absence of extension rules, high degree of cooperation between unions and employers' associations and high level of union density and coverage. The Swedish system is a sector-level bargaining system, with a growing share of the agreements made at the firm level.

2. The response of Swedish labor unions to the recent global financial crisis proved that they have a good grasp of the importance of keeping pace with the global economic environment and responding to crisis promptly and comprehensively. The prominent role of labor unions in the Swedish labor market and economy means that they need to take on the huge task of ensuring that the labor market functions smoothly and remains competitive—vital for the country's long-term global competitiveness as well as the welfare of its population.

3. Sweden's hiring regulations and minimum wage are more flexible than those of many comparator economies. But the potential adverse consequences of fixed-term contracts of short duration suggest that there is room for policy action. In addition, although Sweden has no statutory minimum wage, minimum wages are negotiated as part of the collective agreements at the sectoral level, thus one of the avenues for future research is to examine their impact on employment and productivity.

4. Sweden's regulations on work on the weekly holiday and mandatory paid annual leave are stricter than those of the majority of comparator economies. Swedish workers consistently work fewer hours than their counterparts in other advanced economies; an issue that could have alarming consequences for Sweden's future competitiveness, especially if the lower number of hours worked is not compensated for by high productivity rates.

5. Some aspects of redundancy regulations in Sweden are stricter than those in comparator economies. These include a longer notice period than in the majority of OECD economies, priority rules applying for dismissals and reemployment and a requirement to retrain redundant employees before they can be dismissed. This could be alarming for Sweden's long term competitiveness, given that strict redundancy regulations are positively associated with high labor cost and unemployment.

6. A large discrepancy in the level of protection between permanent and temporary employees means that Sweden runs the risk of creating a dual labor market, which can undermine human capital development, economic performance and welfare.

7. Sweden has a higher share of temporary workers in total employment than other Nordic countries, particularly among youth. And among these temporary workers, a higher share in Sweden are in involuntary temporary employment than in other Nordic countries, across all age groups. These findings raise a concern that Sweden may risk developing a segmented labor market in which youth

are in a particularly vulnerable position. Temporary jobs of short duration and with low employment protection tend to offer low pay, less training and poor career prospects. While protecting employees is important, excessive protection—especially protection that differs across different types of employment contracts—has been shown to have significant adverse effects on welfare and economic performance.

8. Another important indicator of dysfunction in the labor market is a high share of part-time employment that is involuntary—an indicator on which there has been a growing gap between Sweden and the other Nordic countries over the past nine years. While the share of part-time employment that is involuntary can be the result of several factors, including issues related to product markets, labor market regulations may also play an important part. Promoting a more smoothly functioning labor market, through improvements in labor market regulations, can help reduce unwanted outcomes such as involuntary part-time employment.

9. Sweden has a very high share of microfirms (those with fewer than 10 employees) in the manufacturing sector, higher than in most other OECD countries. Small businesses are important drivers of growth and innovation, however, studies have shown that the growth of existing firms is more important in driving economic growth than the creation of new ones. Excessively strict labor regulations can discourage growth by leading to higher labor costs. Thus, further policy improvements, including in labor market regulations, could help support the creation and growth of small and medium-size enterprises.

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