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Jean Monnet Module

The Economics of European Regions: Theory, Empirics, and Policy

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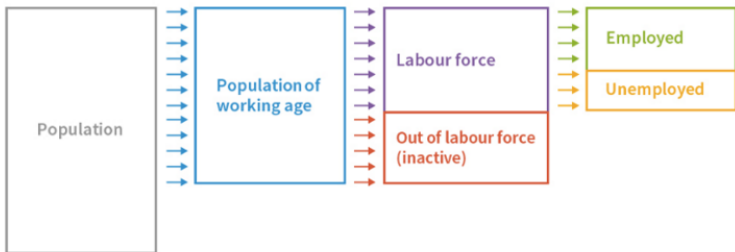
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# Key concepts about the labour market

- **Working age population:** all persons aged 15 to 64;
- **Employed:** all persons above a specific age who during a specific period either one week or one day were either in paid employment or self-employment;
- **Unemployed:** all persons above a specified age who
  - ▶ Were without work during the last four weeks, which means they were not in paid employment or self-employment
  - ▶ Were available for work
  - ▶ Were seeking work, which means they had taken specific steps in a specified recent period to seek paid employment or self-employment
- **Inactive:** those people neither in employment or unemployment;
- **Labour force:** employed + unemployed

# Key concepts about the labour market



## More concepts about the labour market

- **Unemployment rate:** numbers of unemployed people as a percentage of the labour force;
- **Employment rate:** the ratio of the employed to the working age population;
- **Activity rate:** the ratio of the active population (employed plus unemployed) to the working age population;
- **Employment to population ratio:** the ratio of the employed population (aged 15 and over) divided by the total population;
- **Inactivity rate:** the ratio of those inactive in the working age population to the working age population;
- **Participation rate:** the ratio of the labour force to the working age population.

- It is important to note that the denominator is different for the unemployment rate and the employment rate.
- Hence, two countries with the same unemployment rate can differ in their employment rates if one has a high participation rate and the other has a low one.

# Norway versus Spain

	Norway	Spain
<b>Number of persons, millions</b>		
Population of working age	3.3	36.6
Labour force	2.4	20.6
Out of labour force (inactive)	0.9	16
Employed	2.3	18.3
Unemployed	0.1	2.3

# Norway versus Spain

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Population of working age	3.3	36.6
Labour force	2.4	20.6
Out of labour force (inactive)	0.9	16
Employed	2.3	18.3
Unemployed	0.1	2.3
<b>Rates (%)</b>		
Participation rate	$2.4/3.3 = 73\%$	$20.6/36.6 = 56\%$
Employment rate	$2.3/3.3 = 70\%$	$18.3/36.6 = 50\%$
Unemployment rate	$0.1/2.4 = 4\%$	$2.3/20.6 = 11\%$

# Employment to Population Ratio (2016)

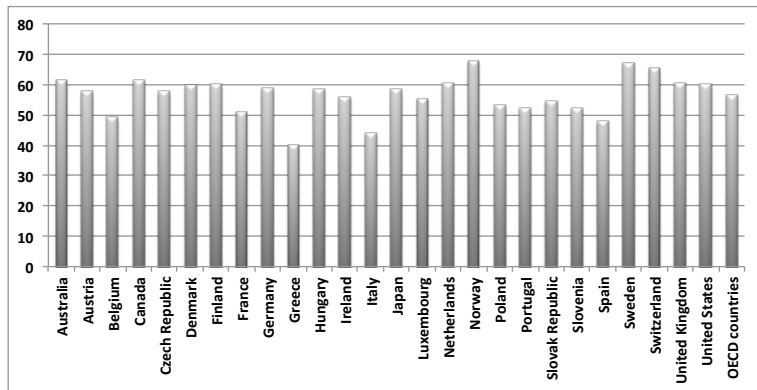


Figure: Source: OECD.



# Labour Force Participation Rate (2016)

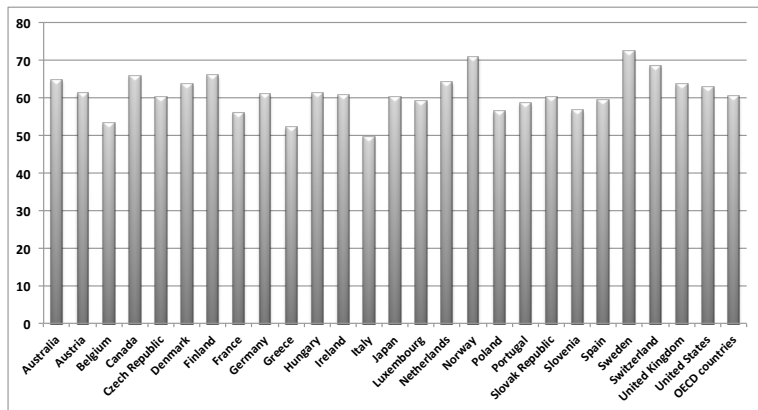


Figure: Source: OECD.

# Female Labour Force Participation Rate (2016)

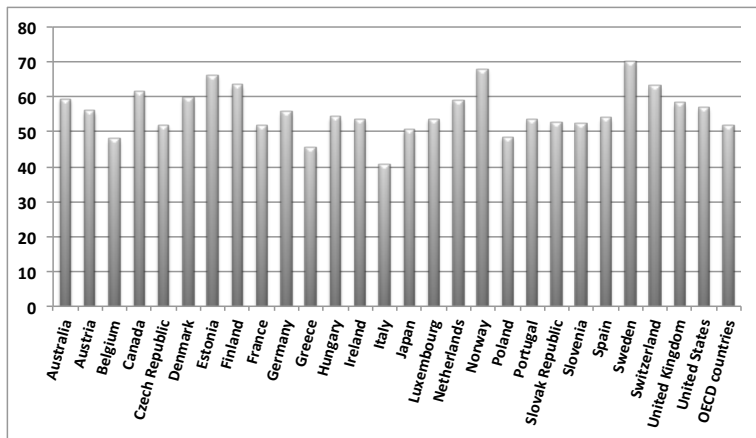


Figure: Source: OECD.

# Unemployment Rate

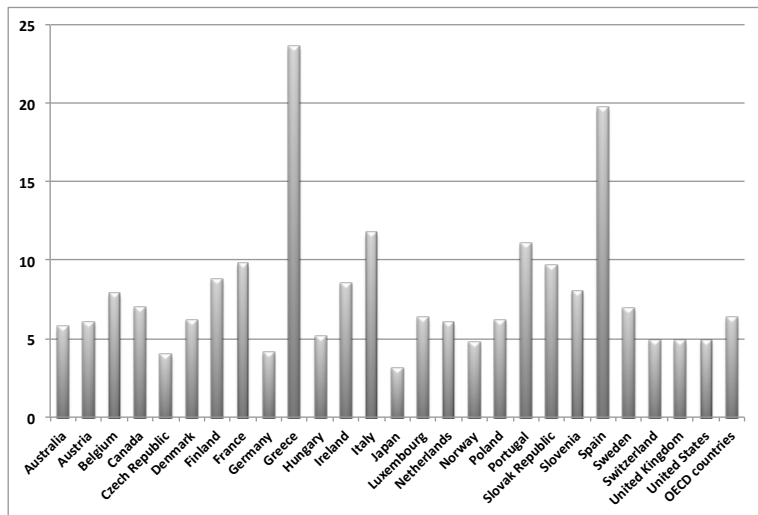


Figure: Source: OECD.

## Youth Unemployment Rate - 15-24 years old (2016)

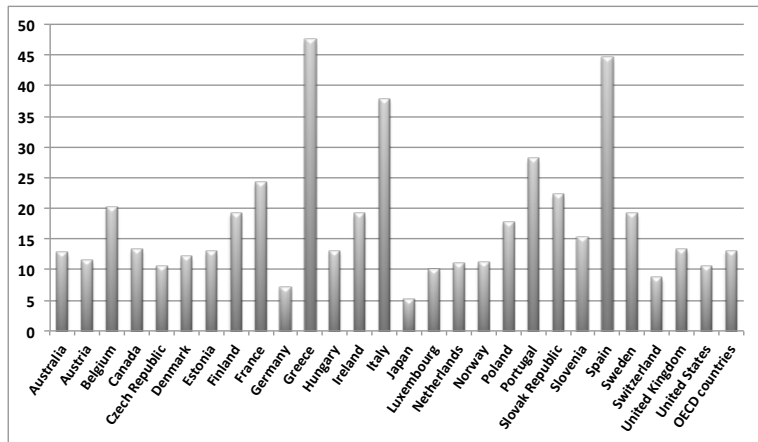


Figure: Source: OECD.

# What is the Employment Protection Legislation (EPL)?

- EPL is one of the many labour market institutions designed to give employees **protection against unfair dismissals** as well as from the **fluctuations in earned income**, which normally occur when the employee loses his job, individually or collectively.
- EPL includes all types of employment protection measures, whether grounded primarily in legislation, court rulings, collectively bargained conditions of employment, or customary practice.

# What is Employment Protection Legislation (EPL)?

- EPL refers both to regulations concerning **hiring** (e.g., rules favouring disadvantaged groups, conditions for using temporary or fixed-term contracts, training requirements) and **firing** (e.g. redundancy procedures, mandated pre-notification periods and severance payments, special requirements for collective dismissals and short-time work schemes).
- The OECD **EPL index** measures the strictness of the procedures and costs involved in dismissing individuals or groups of workers and the strictness of the procedures involved in hiring workers on fixed-term or temporary work agency contracts.

## EPL index (2013)

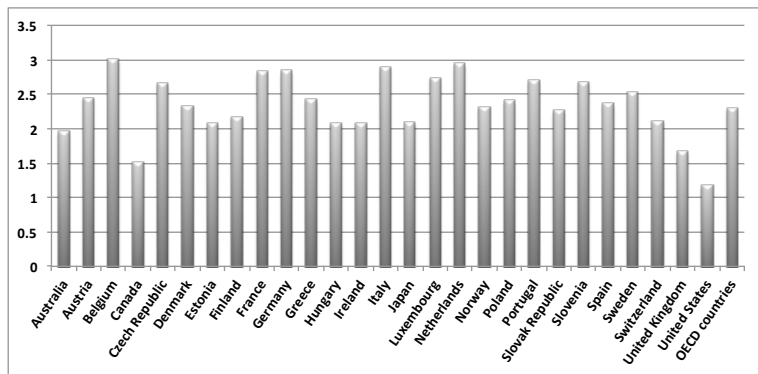


Figure: Source: OECD.

## Employment protection and employment/unemployment

- When employment protection is large, **job creation is lower**, i.e., firms hire less, because they know that if the economic situation get worse they will not be able to freely adjust employment → This would reduce total employment and increase unemployment.
- However, in recessions, the presence of employment protection does not allow firms to freely fire workers, **job destruction is lower** → this slows down the reduction of employment and reduces the increase in unemployment.
- The overall effect of employment protection on employment and unemployment is **ambiguous**.
- In the presence of employment protection firms do not choose employment optimally and thus there is a **loss of efficiency**.



## Employment protection and effort

- In the absence of the "firing threat" workers potentially put **less effort** in their job or their performance is below their full capabilities.
- Some empirical analyses confirms that in the presence of strict EPL workers **absenteism** is higher.

# Employment protection and productivity

- The economic theory stresses the potential for a negative relationship:
  - ▶ Employment protection force firms to **maintain** jobs and workers that are not particularly productive.
  - ▶ Workers exert **less effort**.
  - ▶ Due to lower turnover and fewer job openings, **skill mismatch** is more severe (Maida and Tealdi, 2017).

# Empirical evidence on the effects of EPL (2013)

## Cross-country studies using aggregate data

- Mixed and rather small effects on aggregate levels of employment/unemployment
- Negative effects on vulnerable groups, especially youth
- Hump-shaped relationship between EPL and growth

## Cross-country studies using disaggregate data

- Mixed effects on aggregate levels of employment/unemployment
- Reduced employee turnover (job creation/destruction)
- Negative effects on productivity
- Weak/ negative connection between EPL and perceived job security

## Within country studies using mostly disaggregate data

- Mixed and rather small effects on aggregate levels of employment/unemployment
- Reduced employee turnover (job creation/destruction)
- Negative effects on productivity
- Increased worker absenteeism

## Cross-country correlation between strictness of EPL index and unemployment rate (2013)

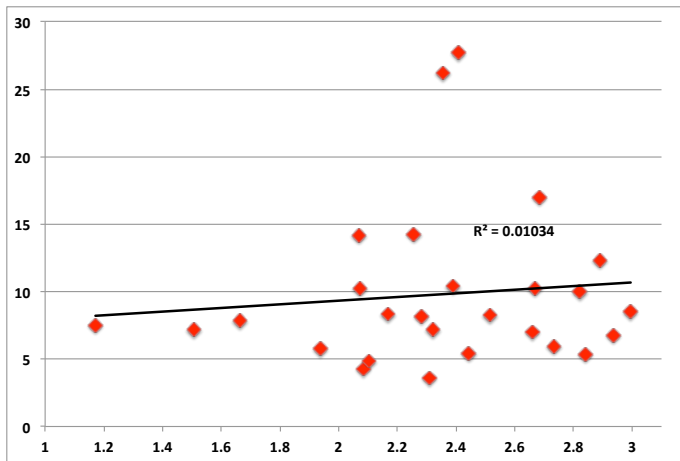
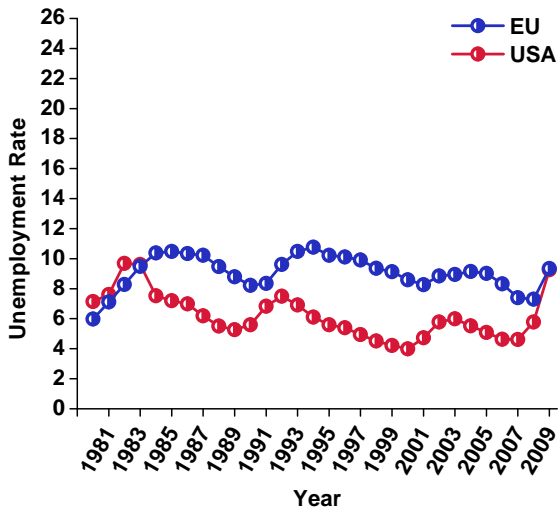


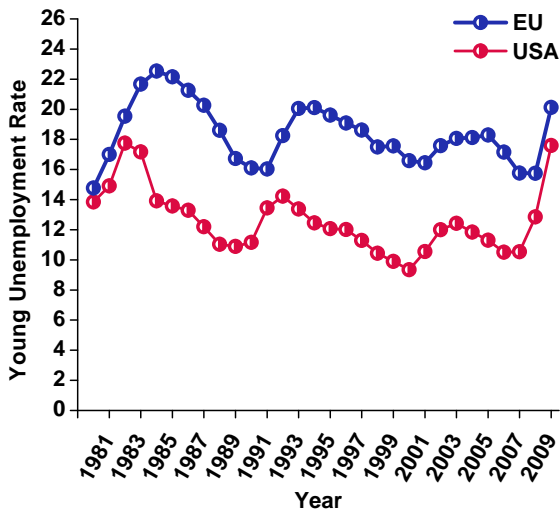
Figure: Source: OECD data.

## EU unemployment rate much higher than US levels



- After 25 years EU unemployment rate much higher than US levels

## Youth unemployment rate very high in EU



- EU youth unemployment rate (15-24) very high
- Introduction of short-term contracts in mid-80s to increase flexibility

## Share of temporary contracts increased substantially

	Unemployment Rate		Short-Term Contracts		Short-Term Contracts	
	Total	15-24	Total		15-24	
	1985		1985	2008	1985	2008
France	10.3	25.6	4.7	14.9	18.9	52.5
Germany	7.2	9.9	10.0	14.7	30.5	56.8
<b>Italy</b>	<b>10.4</b>	<b>33.9</b>	<b>4.8</b>	<b>13.3</b>	<b>9.5</b>	<b>43.4</b>
Netherlands	13.2	22.9	7.6	18.2	21.3*	45.2
Portugal	8.9	19.0	14.4	22.7	33.5	54.6
Spain	21.3	43.8	15.6	29.1	36.2*	59.2
<b>EU 15</b>	<b>10.7</b>	<b>22.3</b>	<b>8.6</b>	<b>14.0</b>	<b>22.9</b>	<b>38.7</b>

Note:\*=1987. Source: OECD.

## What are temporary contracts?

- Temporary contracts are contracts that last for a **specific amount of time**, which has been set and agreed in advance.
- In some instances, temporary contracts may not include an exact time frame, but will instead end when a **specific task** has been completed or fulfilled.
- **No firing cost** at expiration.
- Temporary workers may have their contracts **extended** in line with demand and availability (subject to limitation).
- Depending on the type of contract, temporary workers are entitled or not to the same **rights** as any other member of staff.



# Benefits of temporary contracts

- For firms
  - ▶ **Increased flexibility** in adjusting the workforce according to business cycle fluctuations.
  - ▶ **Cheaper**: lower social security contributions and hiring costs.
  - ▶ **Screening mechanism**: can evaluate workers without commitment (screening device).
- For workers
  - ▶ **Increased flexibility** (no commitment, stepping stone).
  - ▶ Ability to **manage work** around study or other interests.
  - ▶ Facilitated entry into the labour market

# Costs of temporary contracts

For firms

- **Lower productivity:**
  - ▶ lower effort and higher mismatch? No clear-cut answer (Engellandt and Riphahn, 2005; Ghignoni, 2009).
  - ▶ lower on the job training (Cabrales, Dolado, Mora, 2014)
- More work related **accidents** (Picchio and van Ours, 2017).

# Costs of temporary contracts

For workers

- **Lower wages** (Tealdi, 2013).
- **Uncertainty for the future** (Chadi and Hetschko, 2013; Dawson and Veliziotis, 2013).
- More sequences of **temporary employment and unemployment** (Tealdi, 2013).
- Not always eligibility to **workers rights** (maternity leave, sick leave, holidays, pensions, etc.) (Berton, Richiardi, Sacchi, 2015).

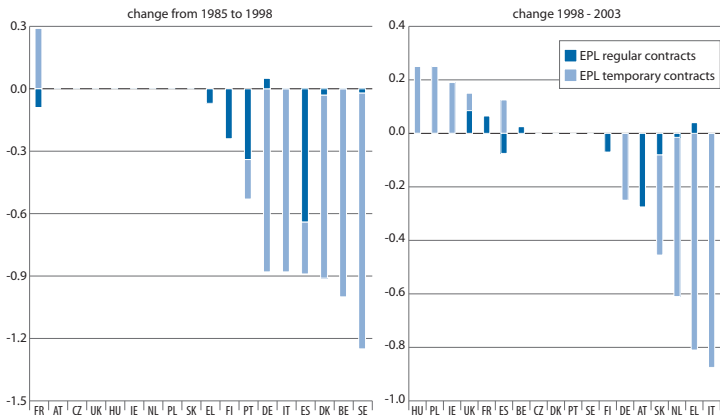
## Flexibility at the margin

- Labour market dualism is related to a particular reform strategy with respect to Employment Protection Legislation (EPL)
- EU Member States have enacted **numerous reforms** in this area since the 1980s aimed at improving the functioning of labour markets and reducing high and persistent structural unemployment rates.
- These EPL reform strategies promoted **flexibility at the margin** through the deregulation of temporary contracts and/or the introduction or development of agency work and other contracts of limited duration, while keeping **existing rules on permanent contracts largely unchanged**.

## Why at the margin?

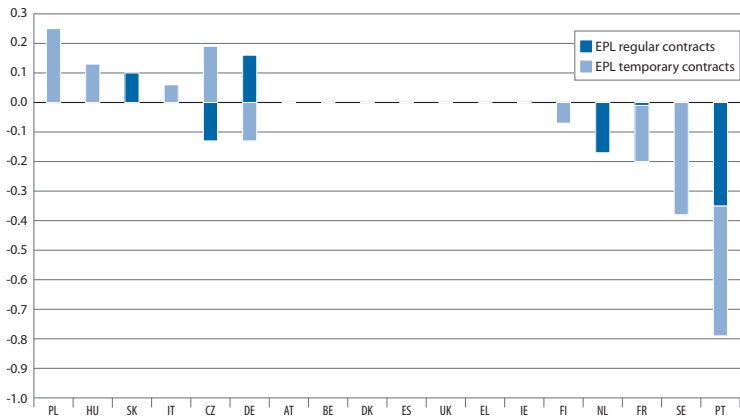
- Largely determined by **political considerations**, i.e., by what it was possible to achieve through the political process,
- Little consideration of how best to design the EPL institution in order to **improve the workings** of the labour market and allocative efficiency,
- Indeed, where permanent contracts represent the most common type of employment, governments were often **unable** to obtain support for reforms that weaken dismissal rules for permanent employees (Saint-Paul, 1999).

**Chart 4: Reforms of Employment Protection Legislation in the EU:  
change of EPL index from 1985 to 2003**



Source: DG EMPL calculations on EPL data available at [www.oecd.org/employment/protection](http://www.oecd.org/employment/protection).

Chart 5: Reforms of Employment Protection Legislation:  
change in EPL from 2003 to 2008



Source: DG EMPL calculations on EPL data available at [www.oecd.org/employment/protection](http://www.oecd.org/employment/protection).

## Dual labour markets

- In 1971, American economists Doeringer and Piore noticed that the labour market seemed to be **segregated** into primary and secondary spheres → they labelled this the **dual labour market**.
- Gilles Saint Paul, "Dual Labor Markets: A Macroeconomic Perspective" (1997):

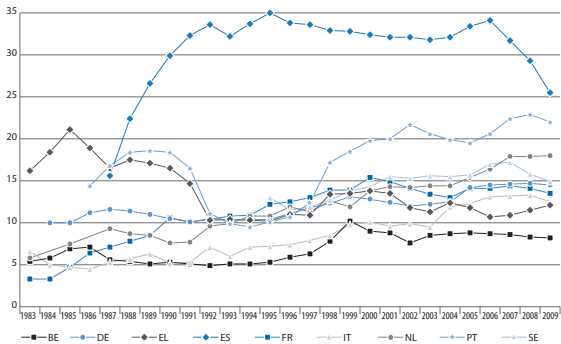
*The labor market consists of **two tiers**. Workers in the upper tier enjoy high wages, good benefits, and employment security, and they are often unionised. Workers in the lower tier experience low wages, high turnover, job insecurity, and little chance of promotion.*



## Effects of reforms at the margin on labour market outcomes

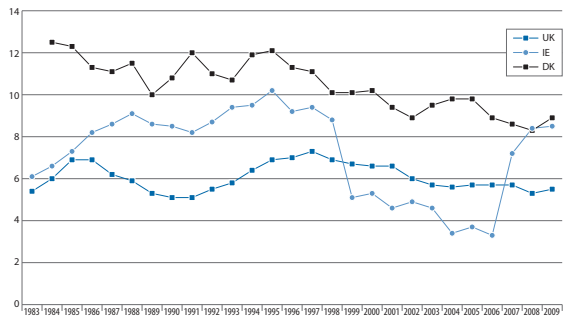
- Two-tier EPL reforms lead to a **more frequent use of temporary contracts** as an entry mode into employment.
- A number of EU Member States have registered a sharp increase in the share of employees in temporary work in past decades (Bentolila et al., 2008; Boeri, 2010).
- **Spain** registered the most rapid growth in the incidence of temporary jobs, from 11% in 1983 to 35% in 1995 (Guell and Petrongolo, 2003).
- In Member States with less stringent regulations for permanent contracts, i.e. UK, Denmark and Ireland, no trend increase in the incidence of temporary employment.

Chart 6: Temporary work in selected EU countries (% of total number of employees) - 1



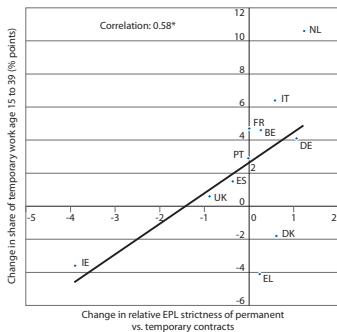
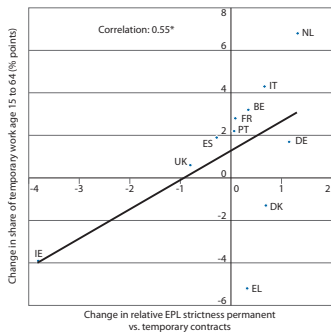
Source: Eurostat.

Chart 7: Temporary work in selected EU countries (% of total number of employees) - 2



Source: Eurostat.

Chart 8: EPL two-tier reforms and share of temporary work (1990-2003)



Sources: OECD and Eurostat. DG EMPL calculations.

## Segmentation and youth

- In most EU Member States, the proportion of **young people who are working in temporary jobs** is very high, especially among those under 25 years of age
- Large cross-country heterogeneity as the share of temporary employment among workers in the 15 to 24 age group ranges from more than 50% to less than 20%.
- In countries which have introduced two-tier EPL reforms, the trend increase in the share of temporary work has been **more pronounced** for younger workers than for total employment.

Table 2: Share of temporary contracts in percentage of total employees

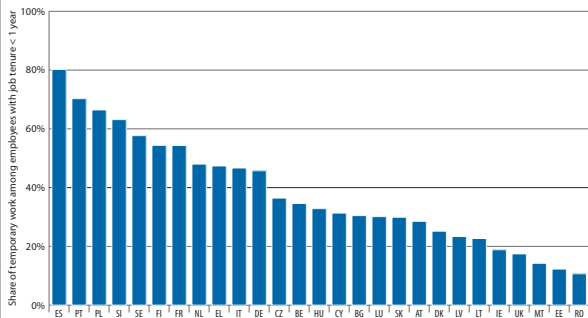
Countries	Between 15 and 24 years		Between 25 and 49 years		Between 50 and 64 years		Between 15 and 64 years	
	2007	2009	2007	2009	2007	2009	2007	2009
Austria	34.9	35.6	4.7	4.9	2.5	3.0	8.9	9.1
Belgium	31.6	33.2	6.9	6.8	4.3	3.3	8.6	8.2
Bulgaria	10.3	9.3	4.5	3.9	5.0	5.0	5.1	4.6
Cyprus	23.3	18.4	14.0	15.0	5.2	6.1	13.3	13.5
Czech Republic	17.4	18.7	5.8	5.5	9.5	9.2	7.8	7.5
Denmark	22.2	23.6	7.0	7.2	4.1	3.2	8.6	8.9
Estonia	na	na	na	2.2	na	na	2.2	2.5
Finland	42.4	39.0	14.1	13.4	7.6	7.1	15.9	14.5
France	52.5	51.2	11.4	10.4	5.9	6.4	14.4	13.5
Germany	57.5	57.2	9.9	10.2	4.7	4.7	14.6	14.5
Greece	27.0	28.4	10.5	11.9	6.1	6.7	10.9	12.1
Hungary	19.1	21.4	6.8	8.2	4.8	5.6	7.3	8.4
Ireland	19.2	25.0	4.8	6.4	4.2	5.1	7.2	8.5
Italy	42.3	44.4	12.2	11.6	6.3	5.7	13.2	12.5
Latvia	9.3	9.3	3.5	3.8	3.2	3.7	4.2	4.4
Lithuania	9.8	5.0	2.9	2.1	2.9	na	3.5	2.3
Luxembourg	34.1	39.3	5.6	5.3	na	na	6.8	7.2
Malta	11.0	11.0	3.8	3.8	na	na	5.1	4.7
Netherlands	45.1	46.5	14.1	14.1	6.8	6.9	17.9	18.0
Poland	65.7	62.0	25.1	23.6	18.2	18.4	28.2	26.4
Portugal	52.6	53.5	21.1	21.3	10.6	10.1	22.4	22.0
Romania	4.6	3.7	1.4	0.8	0.9	0.7	1.6	1.0
Slovakia	13.7	12.5	3.9	3.5	4.0	3.6	5.0	4.3
Slovenia	68.3	66.6	14.0	12.5	6.7	6.0	18.4	16.2
Spain	62.8	55.9	31.0	25.7	15.3	12.0	31.7	25.5
Sweden	57.1	53.4	14.0	12.0	7.3	5.8	17.2	14.9
United Kingdom	13.3	11.9	4.3	4.5	4.3	4.2	5.7	5.5
EU 27	41.1	40.2	12.3	11.5	6.8	6.5	14.5	13.4

Sources: Eurostat.

## Segmentation and hiring

- Evidence shows that two-tier EPL reforms have **dramatically raised the proportion of new recruitments** made on temporary contracts (Cahuc and Postel-Vinay, 2001)
- Bovez and Gomez (2004) found that exit rates from unemployment into temporary contracts are **ten times larger** than exit rates into permanent ones.

Chart 12: Incidence of temporary contracts in hiring (average 2000-09)



Source: DG EMPL calculations from LFS.



## Effects of reforms at margin on wages

- Boeri (2010b) argues that higher numbers of temporary workers increase the **bargaining position** of permanent ones, leading to higher wage pressure if trade unions over represent the interests of the latter.
- Bentolila and Dolado (1994) found that a 1% increase in the share of temporary employment in total employment raised the growth rate of permanent workers wages by 0.3%.
- The research literature suggests that temporary contracts often involve a substantial **wage penalty** for those involved
- After controlling for personal and job characteristics, Jimeno and Toharia (1993) found that Spanish permanent workers earned on average around 10% more than temporary ones. Similarly, De la Rica (2004) found evidence of a 5-10% wage penalty for temporary work.

**Table 7: Contrast results**

Dependent Variable: logarithm of the median of hourly wages

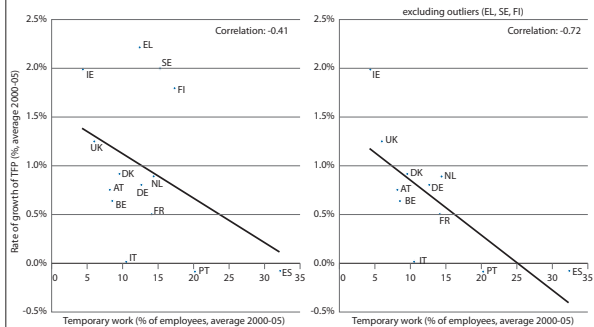
Parameter	Difference	Std. Error	Sig.	95% confidence	
				Lower bound	Upper bound
Type of contract a) Temporary	-0.142	0.000	0.000	-0.142	-0.142
Gender b) Women	-0.191	0.000	0.000	-0.191	-0.190

Reference category: a) permanent; b) men.

## Effects of reforms at margin on training

- Albert et al. (2005) found that workers with only temporary contracts were **textless likely to receive firm-provided and/or financed training** than those with permanent ones.
- The greater turnover of temporary workers, coupled with low conversion rates into permanent contracts, **reduces incentives to invest in (jobspecific) human capital** (Dolado et al., 2002; Bentolila et al., 2008).
- Dolado et al. (2002) and Dolado and Stucchi (2008) report evidence of a negative impact of a large use of temporary work on **labour productivity growth**, mainly via low participation rates in vocational training.
- Dolado and Stucchi (2008) found that firms with a higher share of temporary workers are less productive, while those with high conversion rates of temporary contracts into permanent ones are more productive (for a given share of temporary work).

Chart 22: Temporary work and Total Factor Productivity (TFP)



Source: Ameco for TFP and EU-LFS for temporary work.

Notes: annual growth rate of TFP.

## Effects of reforms at margin on labour market transitions

- Two-tier EPL reforms tend to increase both the number of recruitments and the number of separations, since firms have limited incentives to convert temporary contracts into permanent ones.
- Guell and Petrongolo (2003) found that, between 1987 and 2002, the **conversion rate** of temporary into permanent jobs for Spanish workers in the manufacturing sector was on average only around 10%.
- Blanchard and Landier (2002) argue that two-tier EPL reforms that ease regulations on the use of temporary contracts can actually end up increasing aggregate unemployment and **reducing workers welfare**.
- Cahuc and Postel-Vinay (2001) find that temporary contracts foster both job creation and destruction, but the latter effect dominates when firing costs of permanent contracts are high.
- In an efficiency wage setting(40), Guell (2000) argued that the liberalisation of temporary contracts may trigger a **substitution of temporary workers for permanent ones**.

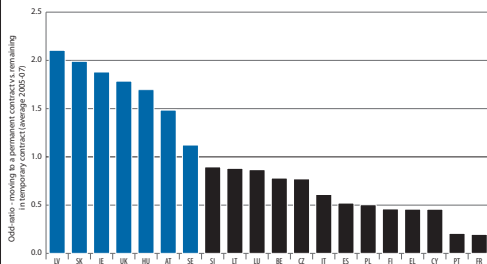
## Effects of reforms at margin on turnover

- The size of both **job and labour turnover rates** is much higher for temporary work. The analysis suggests that a rise of 1% in the share of temporary employment increases flows from employment to unemployment by 0.26, flows from unemployment to employment by 0.16, and flows between jobs by 0.34 (Garcia-Serrano, 1998).
- In 1984 liberalisation of temporary contracts in Spain increased the **duration dependence of unemployment**, i.e., the probability of exiting unemployment declines with the duration of unemployment. Explanation: temporary workers go through recurrent short unemployment spells and push the long-term unemployed further back along the hiring queue, decreasing their probability of exiting unemployment (Guell, 2006 ).

## Effects of reforms at margin on turnover

- The low conversion rates of temporary into permanent contracts found in the empirical literature have led some authors (e.g. Guell and Petrongolo, 2007) to investigate other possible roles for temporary contracts as:
  - ▶ a device for firms to **screen** workers ability/productivity,
  - ▶ **a buffer** to allow firms to adjust their actual employment to their optimal demand levels.
- A prevalence of the latter type of behaviour over the former would be an indication of a **truly segmented labour market**, i.e. one in which temporary jobs are just a cheaper and more flexible alternative to permanent work.

Chart 29: Transition rates from temporary to permanent contracts



Source: EU SILC, using the longitudinal component of the anonymised microdata set. DG EMPL calculations.

Notes: 2006-2007 averages for CY, CZ, HU, LT, LV, PL, SE, SI, SK and UK; 2004-2007 average for LU; 2005-2006 average for IE.

Odd-ratio are calculated as the ratio of temporary-to-permanent to temporary-to-temporary transitions.



## Effects of reforms at margin on employment volatility

- Boeri (2010a and 2010b) and Bentolila (2010) argue that the widespread use of temporary contracts, resulting from two-tier EPL reforms, increases the **business cycle volatility** of employment.
- During upturns, substantial job creation takes place, predominately through temporary contracts, while during downturns substantial job destruction occurs, mainly because temporary contracts are not renewed when they expire.
- Boeri and Garibaldi (2007) call the **honeymoon effect** of two tier EPL reforms on employment creation

## Conclusions

- During the past decades, reforms of employment protection legislation (EPL) introduced in European countries have often been **partial or two-tier**, i.e. they have substantially deregulated the use of temporary contracts, while maintaining stringent firing rules for permanent ones, rather than reforming EPL across-the-board.
- Two-tier reforms have led, firstly, to a large expansion of temporary employment and, secondly, to the emergence of **dual labour markets**
- Overall, two-tier reforms increase both hiring and separation rates.
- Although temporary workers have been disproportionately affected by job cuts during the 2008-2009 recession, net employment gains since 2000 remain positive overall in the EU
- Two-tier reforms have also induced **changes in the composition of the workforce**, leading to a partial substitution of temporary for permanent workers.

## Conclusions

- Temporary workers tend to have **reduced access to training** provided by firms as the limited duration of their employment relationship discourages investment in (firm-specific) human capital.
- Low conversion rates of temporary into permanent jobs may **discourage** temporary workers from exerting effort on the job.
- Temporary contracts often involve a substantial **wage penalty**.
- Labour market segmentation increases the risk that many young people will become **trapped**, with limited career prospects.
- **Solutions:** 'single permanent contract; the introduction of a minimum wage; universal eligibility to unemployment insurance regardless of the type of contract; limiting the application of temporary contracts to specific circumstances.

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