

First incomplete draft (not for quotation)

**Flexibilization And Occupational Segregation In Europe
Do Institutions and Social Models Matter?**

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IZA Workshop II on Flexibilization and the Future of Employment

Tilburg University, Department of Sociology/ReflecT, Warandelaan 2, 5000LE Tilburg,
Contact author: Ruud Muffels, phone: +31134662795, Ruud.J.Muffels@uvt.nl

1. Introduction

The trend of increasing flexibilization at the margins being the ultimate consequence of increased international competition and globalisation is in the literature associated with the erosion of internal labor markets (Gazier and Schmid, 2001), the shift from an industrial to a post-industrial or service economy and the shift from a manager's economy to an entrepreneurial economy (Audretsch & Turik, 2010). For the employment relationship at the level of the workplace, flexibilization implies a shift from lifetime employment to the 'boundary-less career' (Stone, 2005). That means that a larger part of the workforce is confronted with more frequent job changes during the working career also implying a shift from employer, sector and even profession. These shifts on the labor market are not evenly spread across the occupational distribution because they confront particular occupational groups more than others. They emerge to occur also unevenly across countries while more regulated countries show higher levels of temporary labor than less regulated or coordinated countries (Hall & Soskice, 2001). Occupational segregation patterns emerge to differ across the various social models as being distinguished in the regime literature. The purpose of this comparative chapter is to obtain more insight into the way flexibilization patterns with respect to the occupational structure within countries differs across regimes and social models. In particular we are interested in the question to what extent the variation in institutional design associated with these social models matters for the way flexibilization impacts on the occupational distribution. The main hypothesis underlying the entire study concerns the role of the replaceability of workers and the flexibilization of hiring and firing practices for explaining the dissimilar picture of flexibilization in particular countries, both of which are likely to be affected by the institutional context. The main question addressed in this chapter is to what extent the insider-outsider divide in terms of the job and employment security gaps work out differently in the occupational settings of the nine countries under study and the regimes they represent.

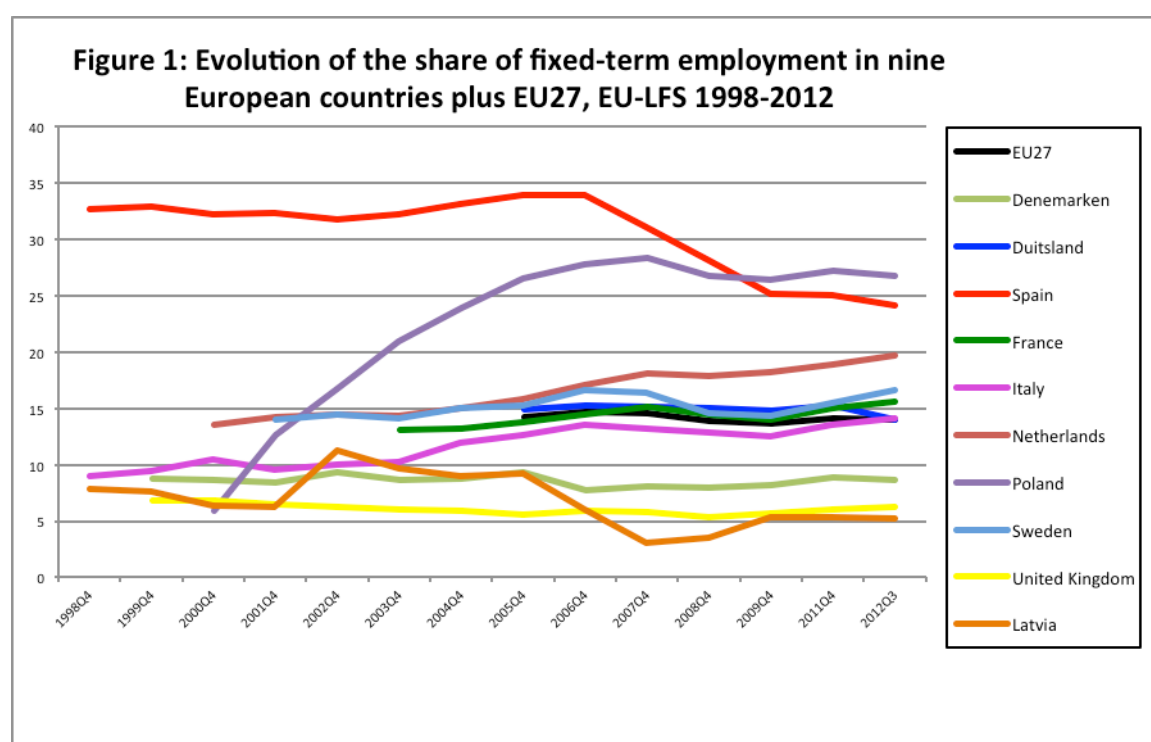
The outline of the paper is as follows. In section 2 we sketch the theoretical and empirical background of the main research question in which we already show some evidence from the European Labor Force Survey and the Statistics on Income and Living Conditions (EU-SILC) to illustrate the points and issues addressed in the literature. In section 3 we focus on our main question on the dissimilar imprint of flexibilization on the occupational structure in the nine countries under study. Again we use the EU-LFS figures at the wake of the economic crisis in 2008 to answer the question. In section 4 we formulate some conclusions and discussion for further research.

2. Flexibilization at the margin: theoretical and empirical background

The trend of ‘marginal flexibilization’ (Eichhorst & Marx, 2010) is not unique anymore for the highly regulated countries in the Southern part of Europe but increasingly common in Continental, Eastern and Northern Europe. Only in the Western Anglo-Saxon countries the shares of flexible labor are still relatively low. The way however policies and institutions adapted to the flexibilization trend appears very different across Europe. The route of the Danish ‘flexicurity’ model with low levels of employment protection but relatively high shares of regular contracts and generous benefit levels, coupled to investment in skill formation to safeguard career-long employment security, is very different from the insider-outsider flexibilization route taken by the Mediterranean and also some Central-Eastern countries. In the South the pattern of ‘marginal flexibilization’ seem to confront the youngsters in particular whereas in the Nordic and Continental countries it confronts notably the low-skilled worker. The Central Eastern countries take a position in between whereby flexibilization at the margin is age as well as skill-related (Muffels, 2013). Below we will present some more evidence on how marginal flexibilization is spread across the European scene.

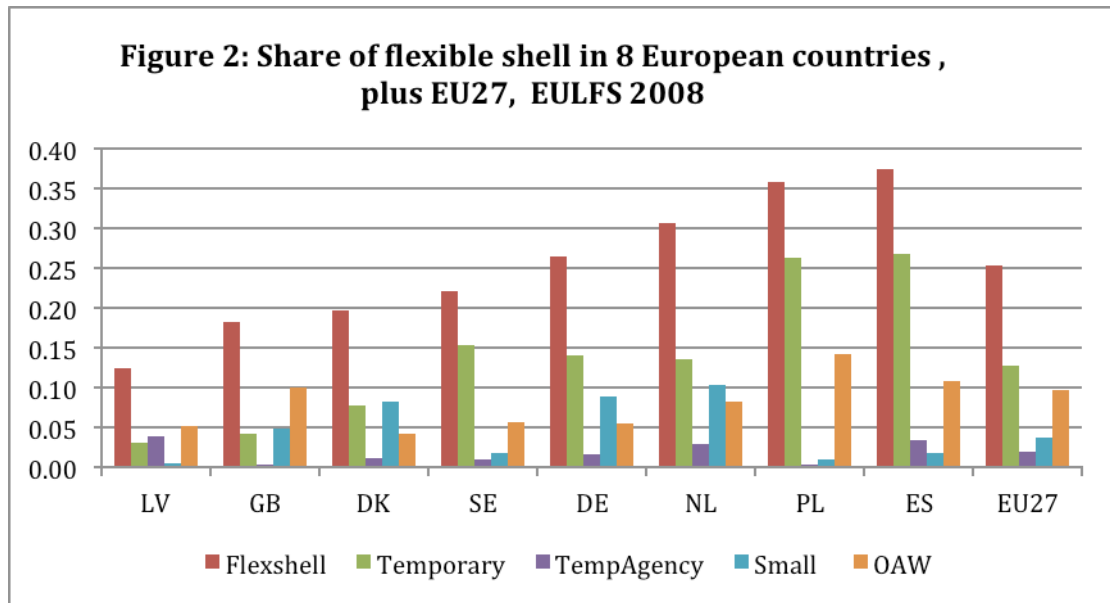
In Figure 1 we show the evolution of the share of temporary employment in the eight European countries plus France during the last decade, showing stability in

France and the UK, a decline in Spain and a steady increase in the other countries. The decline in Spain is associated with the reforms in employment protection of temporary workers but especially the economic crisis strongly reducing the demand for labor including temporary labor. The shell of insecure jobs acts particularly in regulated countries as a 'flexible buffer' expanding in the recovery but contracting in the downturn (the so-called 'honeymoon' effect of Boeri & Garibaldi, 2007; see also IMF, 2010 and Schmid, 2010). The figures for EU27 however show a steady path even during the crisis when a decline was expected.



The evidence shown here pertains to the rise in the share of temporary jobs only but flexibilization becomes also manifest in the increase in very small part-time jobs and in increasing numbers of self-employed workers working on their own-account. For these categories of workers self-employment might be a 'second-best option to regain employment because the preferred permanent job is unavailable for various reasons. In Figure 2 we show the size of the flexible shell once we add these groups to the picture. The UK, the Netherlands and the Southern countries have rather large shares of solo self-employed workers.

Poland and Spain have the largest share of flexworkers followed by the Netherlands that seems to have also many small part-time jobs. Poland and Spain have a large share of temporary workers.



Role of governance

The national labor markets perform very differently in economic and social terms and represent rather distinct ways of governance and social models (ILO, 2012). The role of governance with respect to job and employment security pertains to the impact of labor law regulations, public policies and private sector arrangements affecting security outcomes as discussed in the welfare state and industrial relations literature. Reference can be made to the seminal work of Esping-Andersen (1990; 1999; 2009) and the important contributions of Ferrera (1996) and Naldini (2003) for the welfare state literature and among others Scharpf (1997), Crouch and Streeck (1997) and Hall and Soskice (2001) for the industrial relations literature. We will not delve into this literature here because we are particularly interested in the way the flexibilization process impacts differently within countries on the employment structure in nine countries representing the regional clusters of countries such as the Nordic, Western, Continental, Central-Eastern, Baltic and Southern region. Nonetheless, the regional classification broadly matches the theoretical classification of countries based on the way countries achieve a particular combination of

flexibility and security outcomes (e.g. Muffels, 2008). In Table 1 we present some further evidence on the institutional features of the various labor markets in the selected countries. The countries with the strongest protection of the insiders are Germany, the Netherlands and France whereas especially Spain, Poland and Germany also have strong employment protection for the outsiders whereas the Netherlands and Sweden show a large gap between the EPL for permanent and temporary workers suggesting that this might be responsible for the strong increase of the flexible shell in these countries. Unemployment generosity is particularly high in the Nordic countries and the Netherlands but less so in the Southern region. The tenure figures show that in Sweden and Germany temporary jobs lasts longest and shortest in Spain for which reason Spain shows fairly high job mobility rates but only in temporary jobs. The Netherlands and Denmark spend most to active labor market policies.

Table 1. Institutional features of the labor market in selected countries plus France

Country	EPL Reg	EPL Temp	CD	CB	URR 5 year	Tenure (in years)	Tenure Temp (in months)	ALMP
UK	1.2	0.3	2.9	0.0	61.0	8.6	15.0	0.4
DE	2.9	2.0	3.8	0.3	62.0	10.7	20.0	0.9
NL	2.7	1.4	3.0	0.4	73.0	10.0	10.4	1.2
DK	1.5	1.8	3.1	0.3	76.0	9.4	16.6	1.9
SE	2.7	0.7	3.8	0.4	67.0	10.4	21.4	1.1
ES	2.4	3.8	3.1	0.3	47.0	10.4	5.7	0.9
PL	2.0	2.3	3.6	0.1	50.0	11.0	16.5	0.7
LV					48.0	8.1	8.7	
FR	2.6	3.8	2.1	0.2	60.0	11.3	9.4	1.1
EUR8	2.2	2.1	3.0	0.2	60.8	10.2	14.5	1.0
EUR27	2.2	2.3	3.3	0.2	46.1	10.8	13.7	0.7

Note: CB=Collective Wage Bargain; URR 5 year=OECD 5 year unemployment replacement rate; CD=EPL collective dismissal; Tenure=Duration stay in current job; ALMP-Active Labor Market Policy expenditures as % of GDP

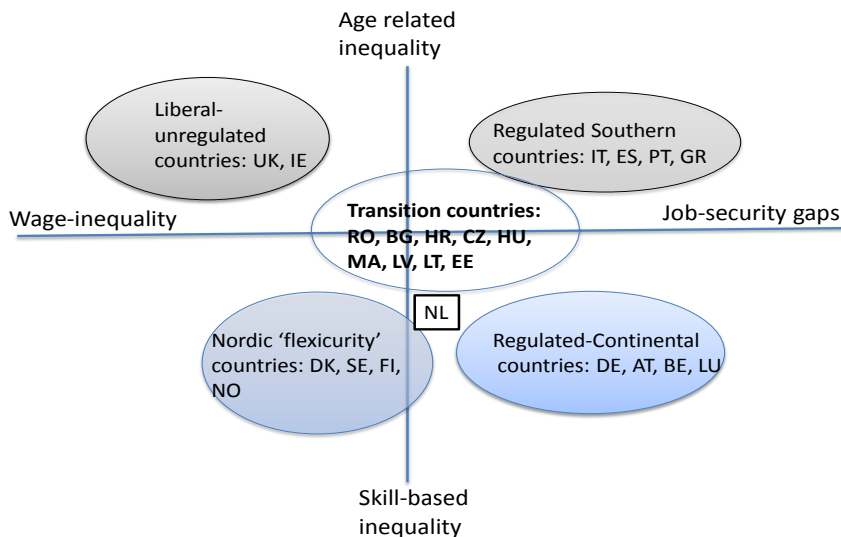
Increasing inequality and the insider-outsider divide

The backdrop of the book is constituted by the implications of the ongoing long-term shifts in the sector and occupational structure in parallel with the trend of rising flexibilization for the labor market. Particular interest exists for the increased wage

and income inequality in many Western welfare states as well as the rising gap in job and employment insecurity between the insiders and outsiders in the various social models. The relationship between flexibilization and inequality is addressed in various strands of the literature notably in the scarring literature viewing the longer-term career effects of spells of unemployment or enrolment in a part-time, low-paid or bad-entry job (Ruhm 1989; Gregory and Jukes 2000; Booth & Francesconi 2002; Gangl 2006; Fouarge & Muffels 2009) and in the globalization (Acemoglu 2002; Autor 2008) and social stratification literature (Blossfeld et al., Barbieri, 2009; Giesecke 2009). The rising wage inequality since the mid 1980s is in this literature partly attributed to the growing insider-outsider wage gaps (IMF 2010; OECD, 2010). One of the important contributions here concerns the prominent amended “Skill Biased Technological Change” (SBTC) thesis of Autor et al. (2008). According to this thesis, the information and communication technology not only raises the demand for the high skilled and lowers the demand for the low skilled, but also reduces the demand for the intermediate skills. This results in a polarization between the high and low-skilled jobs in the economy with substantial effects on wage inequality (Autor, 2010). In two studies by DiPrete (2002; 2006) the increasing inequality is partly explained by different institutional answers to flexibilization tendencies also being the result of globalisation forces on the labor market (see also Muffels, 2008). According to DiPrete’s ‘generalized inequality’ thesis adaptation to adverse economic shocks is in strongly regulated labor markets such as in France not achieved through wage flexibility, nor through job destruction and unemployment as in the US, but through the allocation of low-skilled surplus workers to low-security, low wage jobs. Low skilled workers among which many young workers are therefore increasingly exposed to employment in low-adjustment cost, low security jobs. Because of the downward inflexibility of wages through minimum wage regulations such as in France, rising wage inequality is therefore partly associated with the allocation of increasing shares of low-skilled workers into these low-secure, low-paid jobs. Supportive evidence for the ‘generalized inequality’ thesis was found in a study of DiPrete (2006) comparing France and the US. Maurin and Postel-Vinay (2005) using the European Community Household Panel data for the years 1985-2001 provided support to the ‘generalized inequality’ thesis for most European countries including

France. They showed that job security in most countries acts as the most important lever of adaptation to major economic changes but also that countries with higher skill-based wage gaps show lower job-security gaps suggesting that the two (wage and job-security) mechanisms of adaptation are substitutes to each other. In a review of the literature on the wage inequality/job security debate, Barbieri (2009) added to that literature by making a further distinction between two different forms of adjustment or inequality-security trade-offs: (1) between wage inequality and job security gaps and (2) between age-cohort based inequality and skill-based inequality (see Figure 2). He did not address the way these inequality trends are associated with the shifts in occupational structure in which we are primarily interested in this book.

The age-based job and employment security trade-offs seem particularly relevant for the regulated Mediterranean labor markets with a strong divide between insiders and outsiders as indicated by the rising allocation of low-skilled workers to temporary jobs and the much lower transition rates from insecure, low-paid to secure, high-paid jobs. The Nordic and Continental countries on the other hand instead are featured by skill-based wage gap and job-security trade-offs while showing higher transition rates into more secure jobs but primarily for the high skilled. The Nordic countries belong to a so-called 'flexicurity' cluster with high levels of skill-based wage gaps but low job security gaps and high transition rates from insecure outsider -into secure insider-jobs. The unregulated labor markets in the UK and Ireland form a cluster with high levels of age-related and low levels of skill-related wage gaps coupled to low job-security gaps and high transition rates from insecure to secure jobs.



Source: Derived from Barbieri 2009, own amendments.

Figure 2: Adjustment strategies and inequality-security trade-offs

The Netherlands appear to be a special case while located in between the Nordic, Continental and CEE cluster due to skill-related wage gaps, strict levels of employment regulation for permanent contracts and loose regulation of temporary contracts, high shares of insecure jobs coupled to modest transition rates from insecure to secure jobs. Following this line of reasoning we would expect the former socialist Central-Eastern countries to be positioned in-between the Mediterranean and the Continental clusters with intermediate levels of age-related wage inequality and skill-based job security gaps. The CEE countries show very heterogeneous adjustment strategies with the best performing countries showing modest age-related wage gaps but rising skill-based job security gaps. Countries with a poorer economic performance show high age-related wage gaps but modest job security gaps. Remarkably so, the transition rates from temporary into permanent jobs are rather high in these Eastern countries. In Table 2 below we present some more descriptive information on the age and skill-related job gaps in the selected countries for this book as well as into the mobility rates from temporary into permanent jobs. The evidence largely confirms the conjectures made before with respect to the age related job security gaps in the Southern and the skill-based gaps in the Continental and Nordic countries. The share of insecure high-skilled youngsters is however substantial in Germany and the Netherlands. In the Eastern

countries job insecurity is age and skill-based at the same time as also the figures for Poland show here. The mobility figures for the transition from an insecure temporary into a secure permanent job (open-ended contract) also confirm the high transition rates in the unregulated countries such as the UK and the relatively low rates in the regulated Continental and Southern countries. The mobility rates in the Baltic region are rather high as the figures for Latvia show.

Table 2. Age and skill-related job security in selected countries plus the mobility into secure jobs

selcountry	Youngsters	Prof. Pop.	Prof population 16-64		Youngsters 16-35		Transition T->P inflow in %
	(16-34)	16-65	Low skill	High skill	Low skill	High skill	
UK	0.07	0.04	0.03	0.05	0.06	0.07	0.65
DE	0.31	0.14	0.34	0.09	0.61	0.22	0.33
NL	0.28	0.15	0.22	0.10	0.40	0.19	0.27
DK	0.15	0.08	0.12	0.06	0.22	0.11	0.43
SE	0.30	0.14	0.23	0.12	0.54	0.23	0.52
ES	0.38	0.24	0.27	0.20	0.43	0.33	0.29
PL	0.34	0.22	0.33	0.15	0.54	0.24	0.32
LV	0.04	0.03	0.09	0.01	0.11	0.01	0.68
FR	0.25	0.13	0.14	0.11	0.33	0.19	0.16
EUR8	0.26	0.14	0.20	0.11	0.39	0.20	0.24
EU27	0.22	0.12	0.17	0.10	0.33	0.19	0.28

Note: Figures for Denmark a

Source: EU-LFS 2008, EU-SILC 2005-2009

Relationship with shifts in the occupational structure

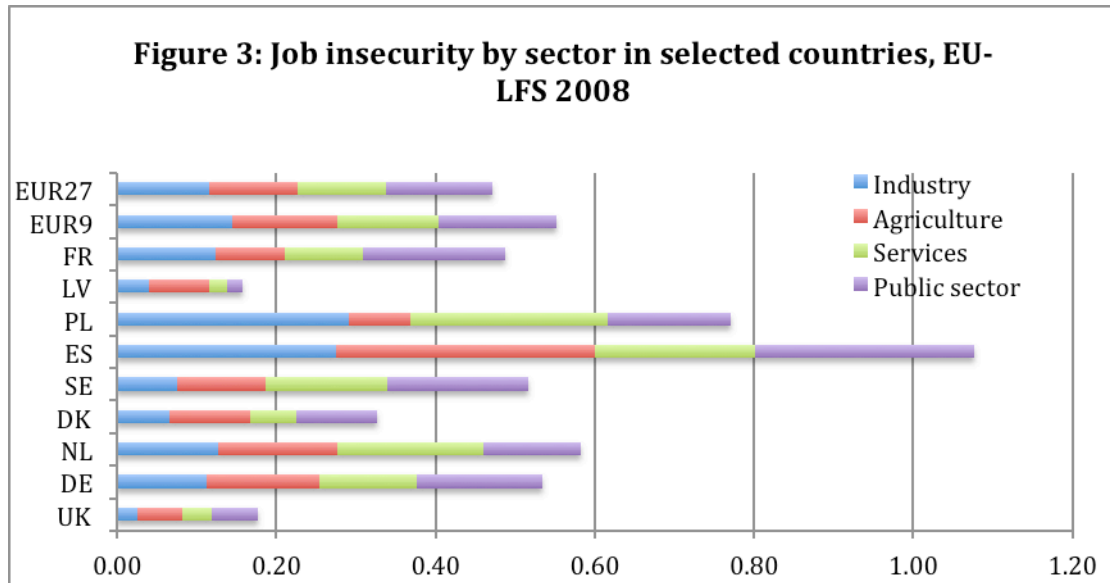
The flexibilization and dualization of the labor market in many European countries went along with a dualization in the occupational structure resulting from a shift from industrial employment to ICT -and service-sector employment even though not at the same pace across Europe. The earlier explained amended SBTC–thesis leading to a polarization of the occupational structure by skill-level, can for a substantial part be explained by the dualization of the economy into a high and low-skilled based industrial employment structure. The ICT sector operating in a global and competitive market environment requires high-skilled labor and strong productivity growth whereas the service sector which is featured by operation mainly at national and local level and low productivity growth (Baumol’s law), requires mainly low-skilled labor (post and communication, household services) but in some specific

branches also high-skilled labor (such as in education and science, arts and creative industry etc.).

In addition, one should bear in mind that both the ICT and service sectors are highly sensitive to the fluctuations of the business cycle because of which swift adjustment to demand shocks is an important survival strategy for employers. The two adjustments mechanisms sketched before, indicated by the wage-gap and the job-security gap strategy work out unevenly across the employment structure by sector and occupation, also dependent on the particular features of the market. This brief sketch of the major trends on the labor market highlights the need to study flexibilization against the backdrop of these on-going structural changes. These changes paved the way for an insider-outsider divide with rising job insecurity and wage inequality along occupational lines.

At the same time public sector employment cannot compensate anymore for the reduction of stable employment in the private sector associated with the existence of welfare state retrenchment policies since the mid 1980s in most countries. These policies tend to downsize public sector employment because of deregulation and privatization policies and macro-economic policies aimed at reducing budget deficits in conjunction with the labor-intensive nature of government services. Simply, because jobs in the shielded public sector are more protected and secure on average than in the private sector, this shift renders an autonomous trend to a declining share of secure employment. Because these policies and their impacts on sector employment differ across countries the impact of flexibilization on the distribution of job security by sector will also be different across countries.

Some evidence on the distribution of flexwork by sector is given in Figure 4. In Poland and Spain the countries with the largest share of flexworkers, many of them work in the industry and in the service sector (Poland) or in agriculture and the public sector (Spain) whereas in the Netherlands a large share of flexworkers is employed in the service sector.

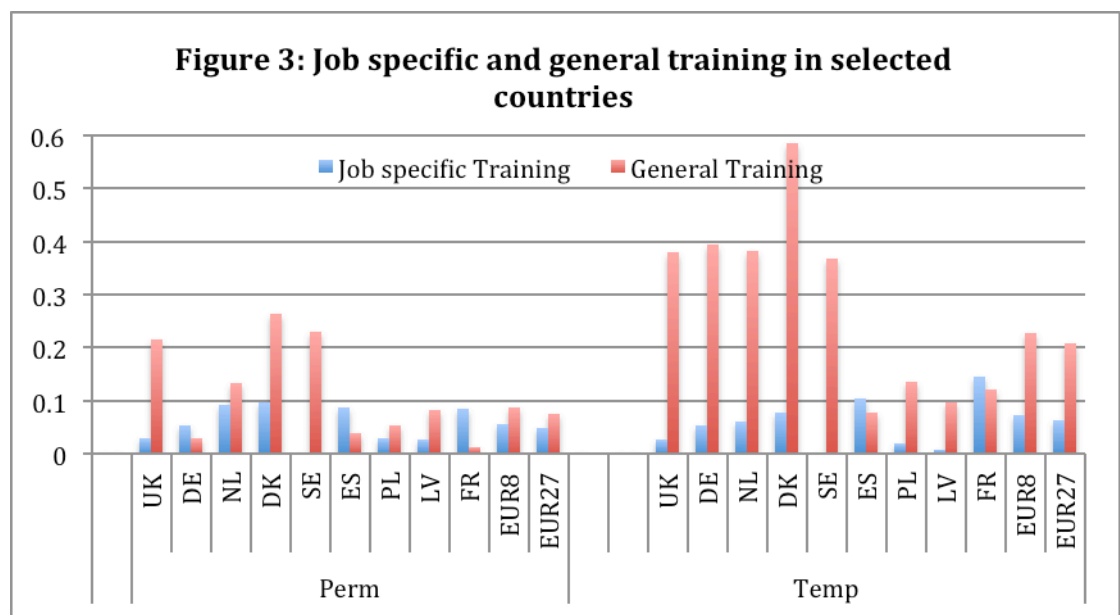


Adjustment strategies of firms and dualization

The use of temporary labor is mainly an adjustment strategy of firms either to global economic shocks in conjunction with high levels of labor market regulation in coordinated welfare regimes (Hall & Soskice, 2001), or to strong fluctuations in demand associated with the short-cyclical or project-oriented nature of the job as in creative professions. The increased competition in a globalized market also results in temporary labor to be used in low-skill professions as cheap labor, as a way to reduce labor costs to maintain competitiveness. This is also shown by the existing wage-gaps between temporary and open-ended contracts in most countries even after controlling for compositional differences between the two types of contracts (IMF, 2010; Muffels et al. 2008). Economic theory suggests that temporary workers will be compensated in their wages for the job insecurity they face except in the case that employers invest in the human capital of the temporary worker and therefore will offer a lower initial wage to recover these training costs that will increase again after training as a return to investment (de Zijl 2010). The evidence though suggests that employers invest less in temporary workers and that the wage-gaps with similar workers in infinite contracts are substantial in many countries notably in countries with large shares of temporary labor such as in the Southern countries (Corvers et al., 2010; Fouarge & de Grip 2010; Muffels et al., 2008).

The evidence seems to suggest that employers pay efficiency wages (above market level) to workers in the core segment of the internal labor market (insider jobs). It supports the core-periphery thesis of Atkinson (1984) positing that the level of skills required, together with the level of skill-specificity in these jobs (see chapter 1) determine the belonging to the core or the periphery workforce of the firm, the latter of which composed of temporary labor (outsider jobs). For these reasons the use of flex-labor in firms is either an adjustment strategy to the whimsicality of the market or a way to organize production and to rationalize on labor costs (replaceability strategy). These firm strategies tend to lead to a ‘dualization’ of the labor market with a strong divide between insiders and outsiders especially in strongly regulated and coordinated countries.

In Figure 3 we show some evidence on the investments of firms in job or firm specific and general training for temporary and permanent workers in the selected countries.



Employers generally seem to invest more in job specific training for the core workers and more in general training for the marginal workers except in Spain and France where the investments in job specific training for the temporary workers are larger than for the core workers. Notably in the unregulated countries of the UK and DK

employers invest more in general training for both categories of workers than in firm or job specific training supporting the claims of the Varieties of Capitalism approach.

Erosion of internal labor markets and 'flexicurity' approaches

Some scholars point to a more general trend of the erosion of internal labor markets as a consequence of globalization and the flexibilization of the employment relationship (Gazier and Schmid, 2002). This important change on the labor market has tempted Osterman (1996) already 15 years ago to speak of 'broken ladders'. The job security offered before by the internal labor market as one of the inclusive institutions is in this view eroded without being compensated by new institutions to safeguard labor market security. The much heralded 'flexicurity' approach of the Scandinavian regimes is in the literature considered as the institutional answer to the rising wage and job-security gaps through safeguarding employment security instead of job security (Wilthagen & Tros 1998). It couples lenient employment regulation to high levels of employment and income security attained by means of facilitating investments in employability and activating income and employment support. It sets itself apart from the unregulated regimes with low activation and ungenerous support as the UK and the highly regulated regimes with strong activation and generous income support as Germany and France. The evidence earlier presented in Table 1 provides support to these assertions.

3. Flexibilization and the occupational structure.

Firms in the private sector are more sensitive to the whimsicality of the market and might therefore be more inclined to use temporary labor for adapting more swiftly to demand shifts. The literature shows that firm size, immigrant status and type of profession are important correlates of job insecurity. Job insecurity is not equally spread across the distribution of professions but shows an U-shaped pattern as being more concentrated in occupations either demanding low skills such as in the commercial services sector or high skills as in scientific, creative, juridical or managerial professions (Biavaschi et al., 2011). The available evidence also shows that insecure jobs are more likely to exist in small firms and to be occupied by

immigrants. This seems to suggest that the use of temporary labor is associated with either a strong wavering of product demand such as in project-oriented employment sectors (science and creative industry) or to the low-skills nature of the job (services). For a first insight into the relationship of flexibilization and the occupational structure we present some information on the distribution of job insecurity by occupation in our selected countries including France. Legislators, agricultural workers, technicians and plants and machinery workers have low shares of temporary workers whereas high shares are found with service workers, workers in the armed forces and notably in elementary professions. Germany, the Netherlands, Denmark and Sweden employ high shares of flexworkers in unskilled or elementary jobs but also Spain and Poland suggesting that in countries with the highest share of these workers the jobs in which they are employed are jobs at low-level for which only low skills are required. This confirms the ‘generalized inequality’ thesis of DiPrete (2008) and supports the conjecture that flexibilization is a ‘cheap labor’ strategy of firms.

Table 3: Job insecurity by occupation in selected countries, EU-LFS 2008

ISCO-88	UK	DE	NL	DK	SE	ES	PL	LV	FR	EUR8	EUR27
Legislators	0.02	0.04	0.04	0.01	0.03	0.02	0.06	0.03	0.02	0.03	0.03
Agricultural worker	0.05	0.16	0.33	0.14	0.19	0.12	0.04	0.07	0.12	0.09	0.07
Science	0.07	0.14	0.12	0.09	0.12	0.24	0.13	0.07	0.13	0.13	0.12
Plants and machinery	0.04	0.15	0.20	0.05	0.13	0.23	0.25	0.07	0.15	0.16	0.13
Crafts	0.01	0.19	0.14	0.12	0.10	0.31	0.28	0.07	0.15	0.18	0.14
Clerks	0.10	0.23	0.30	0.15	0.22	0.25	0.29	0.07	0.13	0.19	0.16
Army	0.05	0.55	0.07	0.12	0.09	0.35	0.13	0.16	0.29	0.30	0.21
Technicians	0.06	0.17	0.15	0.09	0.11	0.18	0.18	0.08	0.11	0.14	0.12
Elementary worker	0.15	0.39	0.55	0.32	0.35	0.46	0.42	0.11	0.30	0.34	0.30
Service worker	0.17	0.29	0.40	0.31	0.27	0.29	0.32	0.06	0.19	0.25	0.22
% of all workers	0.08	0.20	0.22	0.15	0.16	0.27	0.22	0.07	0.15	0.18	0.15

Multivariate analyses on job insecurity

In the analyses so far we viewed the prevalence of marginal flexibilization by age, skill-level, business sector and type of occupation in the nine selected countries. The picture obtained from these bivariate analyses is very dissimilar across these nine countries. We already argued that the unequal social and economic development in

these countries together with the dissimilarities in the institutional settings is likely to play a part. In the last part of this chapter we will look into the combined effect of the determinants of marginal flexibilization as they emerge from the literature on the issue. We ran two multivariate regression models on the probability to be employed in a non-standard job assuming that the level of flexibility for the employer and the level of security for the employee is different for the various types of jobs. The highest flexibility is attained if there is no employment relationship and the work is done on a self-employment or freelance basis. In many cases these workers work on their own account without having personnel, the so-called own-account worker or solo self-employed. The weakest flexibility is with quasi permanent jobs in which the employment relationship is fixed-term but for a longer period and based on the agreement that when the worker performs well the temporary contract is exchanged for an open-ended contract. There are many forms in between, from on-call and zero hours contracts, casual work, temp agency work to small part-time jobs. From the European Labor Force Survey we have information on self-employment, fixed-term contracts, temp agency work and small part-time jobs. We defined these categories hierarchical assuming that the level of flexibility to the employer increases from a fixed-term to a small part-time job. If a job is not a permanent contract, not a fixed-term job, not a temp agency job and not a freelance job and the number of weekly working hours is less than 15 we assume it to be a marginal job. Such a job is likely to be a mini or midi-job as in Germany, a casual job as in the UK or an on-call or zero hours contract job as in the Netherlands. To distinguish the solo self-employed we made use of the information on the declared self-employment status, the size of the firm and the hours of work. People who declared themselves self-employed and who have paid work for at least one hour a week and who are not in the first category of firm size are defined as solo self-employed. We checked the distribution of these self-employed workers by country with the information contained in EU-SILC and the results are nearly identical. The models are estimated as ordered logit models to account for the different levels of flexibility and security associated with the various types of jobs.

Table 4: Ordered logit models (welfare regime and country model) estimates of the probability to work in a non-standard job compared to working on a permanent contract, EU-LFS 2008

Type of Job (Flex versus Permanent)	Model I-WR	Model II-CNTR
Age	-0.151***	-0.127***
Age squared	0.002***	0.001***
Gender	-0.061***	0.011
Marital status (Ref.: Div., Sep., Wid)		
Single	0.007	0.015
Married	-0.145***	-0.169***
Sector (Ref. Agriculture)		
Industry	1.168***	0.796***
Services	0.210***	0.052***
Public sector	0.238***	0.150***
Occupation (iscled1d) (Ref. Armed Forces)		
Legislators, senior officials, managers	0.251***	-0.142*
Science professionals	0.489***	0.511***
Technicians and Ass. Professionals	0.137***	0.203***
Clerks	-0.321***	0.093
Service and sales workers	-0.095***	0.190***
Skilled agricultural	1.757***	2.043***
Crafts and trades workers	0.410***	0.625***
Plant and Machine operators	0.115***	0.371***
Elementary Occupations	0.263***	0.466***
Education level (Ref. Medium skilled)		
Low skill (iscled1,2)	0.157***	0.104***
Highskill (iscled,5,6)	0.025***	0.016
Firm size		
Small firms (<11)	1.640***	1.519***
Medium-Large (>49)	-0.228***	-0.288***
Type of training		
General Training	0.406***	0.166***
Job specific training	0.100***	-0.058***
Welfare Regime (Ref. Continental)		
Nordic	0.083***	
Anglo-Saxon	-0.017	
Eastern	0.343***	
Baltic	-0.751***	
South	0.563***	
Country selected (Ref. UK)		
DE		0.195***
NL		0.490***
DK		-0.463***
SE		0.137***
ES		0.827***
PL		1.026***
LV		-0.988***
Intercept1 (Temporary contract)	-0.404***	-0.164*
Intercept2 (Temp Agency)	0.453***	1.015***
Intercept3 (Marginal PT)	0.537***	1.111***
Intercept4 (Self-employed -OAW)	0.565***	1.152***
N	1715634	491761
R2	18.60%	15.40%

The main variables of interest in the model are age, skill-level, firm sector, occupation, firm size and welfare regime type (Model I). The outcomes confirm largely the bivariate results discussed before. The results on firm size are not discussed before but show that small firms are much more likely to hire temporary workers than medium-sized or larger firms. The reason is either because small firms are more sensitive to business cycle changes or because firms are smaller in the services and sales sectors with larger shares of flexworkers. The two models show very similar results except for the training and skill variables indicating skill-specificity and skill-level. In the selected countries temporary workers get less job-specific training but more general training whereas in the model on all 27 countries they also get more specific training. This might be related to the inclusion of the regime type variable showing that compared to the Continental regimes workers in the Nordic, Eastern and Southern countries are more likely to enroll in a flexjob but workers in the Baltic countries less likely after controlling for age, skill-level and occupational and sector structure. The 8-country model shows that Danish and Latvian workers are less likely than British workers to work in temporary jobs but Swedish, Dutch, Spanish and Polish workers much more.

The impact of institutions

Eventually we ran similar models as the welfare regime model but replacing the welfare regime variable with indicators for the level of employment protection for regular and temporary workers and collective dismissal, for unemployment generosity (5-year unemployment replacement rate), active labor market policies (expenditures in % of GDP) and indicators for the level of coordination in wage bargaining based on information in the ICTWSS database of Amsterdam University (coveragexcoordination level). In this version we present some preliminary results. The results confirm that the stricter EPL is, either EPL for regular or temporary workers or the procedures for collective dismissal the more likely employers try to circumvent the strict rules and to employ workers in non-standard jobs. Remarkably, the higher the level of collective bargain coordination and the more generous unemployment benefits are the lower the share of temporary workers.

Table 5. Effect of institutions on the the likelihood of being employed in non-standard jobs compared to being employed in regular jobs

EPL Regular job	0.35 ***
EPL Temporary job	0.1 ***
EPL-CD	0.3 ***
CB	-0.67 ***
ALMP	0.01 **
URR5YR	-0.61 ***
EPL*URR	-0.001 ***
EPL*ALMP	0.16 ***

Bron: EU-LFS 2008

On the other hand the more active labor market policies are the higher the share of temporary workers suggesting that activation helps unemployed people to acquire a temporary job but not a permanent job. The interaction of EPL and ALMP has a positive effect on marginal flexibilization whereas the combination of a high EPL and URR exerts a negative effect on the share of temporary workers (to be followed).

4. Conclusions and Discussion

(To be followed)

References (to be checked)

- Autor, D. H., L. F. Katz, et al. (2008), Trends in U.S. Wage Inequality: Revising the Revisionists, *Review of Income and Statistics*, 90(2): 300-323.
- Autor, D. H. (2010). The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings. Cambridge, MIT Department of Economics and National Bureau of Economic Research: 1-40.
- Audretsch, D.B. en Thurik, A.R. (2000). Capitalism and democracy in the 21st Century: from the managed to the entrepreneurial economy, *Journal of Evolutionary Economics* 10(1): 17-34.
- Bardasi, E., & Gornick, J. C. (2008). Working for less? Women's part-time wage penalties across countries. *Feminist Economics*, 14 (1), 37-72.
- Belzil, C. (1995). Unemployment Insurance and Unemployment Over Time: An Analysis with Event History Data. *The Review of Economics and Statistics*, 77 (1), 113-126.
- Berton, F., Richiardi, M. & S. Sacchi (2012). The Political Economy of Work Security and Flexibility, Policy Press UK.
- Biavaschi, C., E. W., et al. (2012). Youth Unemployment and Vocational Training. Background Paper For The World Development Report 2013, IZA Bonn, pp. 95.
- Boeri, T. and P. Garibaldi (2007). Two tier reforms of employment protection: A honeymoon effect? *Economic Journal*, 117(521): F357-F385.
- Böheim, R., & Taylor, M. P. (2000). The Search for Success: Do the Unemployed find Stable Employment? Essex: University of Essex, Institute for Social and Economic Research.
- Booth, A. L., Francesconi, M., & Frank, J. (2002). Temporary jobs: Stepping stones or dead ends? *Economic Journal*, 112 (480), F189-F213.
- Blossfeld, H.-P., Buchholz, S., Bukodi, E. and Kurz, K. (Eds.) (2008). Young Workers, Globalization and the Labor Market: Comparing Early Working Life in Eleven Countries. Cheltenham: Edward Elgar
- Cazes, S., Tonin, M. (2010). Employment protection legislation and job stability: A European cross-country analysis. In: *International Labor Review*. Vol.149 (3):261–285.
- Cörvers, F., Euwals, R. & De Grip, A. (2011). Labor Market Flexibility in the Netherlands, Den Haag: CPB.
- Dickens, R., Machin, S., & Manning, A. (1999). The effects of minimum wages on employment: Theory and evidence from Britain. *Journal of Labor Economics*, 17(1), 1-22.
- DiPrete, T. A., D. Goux, et al. (2002). Internal labor markets and earnings trajectories in the post-Fordist economy: An analysis of recent trends. *Social Science Research* 31(2): 175-196.
- DiPrete, T. A., D. Goux, Maurin, E. and Quesnel-Vallee, A. (2006). Work and Pay in Flexible and Regulated Labor Markets: A Generalized Perspective on Institutional Evolution

- and Inequality Trends in Europe and the U.S. *Research in Social Stratification and Mobility*, 24: 322-332.
- Eichhorst & Marx (2011).
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.
- Falk, A. en E. Fehr (1999). Wage rigidity in a competitive incomplete contract market, *Journal of Political Economy*, vol. 107, pp. 106-134.
- Fouarge, D., A. de Grip, W. Smits, R. de Vries (2012), Flexible contracts and human capital investments, *De Economist*, 160: 177-195.
- Gebel, M. (2009). Fixed-Term Contracts at Labor Market Entry in West Germany: Implications for Job Search and First Job Quality. *European Sociological Review* 25(6): 661-675.
- Giesecke, J. (2009). Socio-economic Risks of Atypical Employment Relationships: Evidence from the German Labor Market. *European Sociological Review* 25(6): 629-646.
- Graaf-Zijl, M. de, G. van den Berg en A. Heyma (2011) Stepping stones for the unemployed: the effect of temporary jobs on the duration until (regular) work, *Journal of Population Economics*, 24(1): 108–137.
- Fouarge, D., & Muffels, R. (2009). Working Part-Time in the British, German and Dutch Labor Market: Scarring for the Wage Career? *Journal of Applied Social Science Studies (Schmoller's Jahrbuch)*, 129, 217-226.
- Gallie, D. (2007). Welfare regimes, employment systems and job preference orientations. *European Sociological Review*, 23 (3), 279-293.
- Gangl, M. (2006). Scar effects of unemployment: An assessment of institutional complementarities. *American Sociological Review*. 71 (6). 986-1013.
- Goldthorpe, J. H. (2002). Globalisation and social class. *West European Politics*, 25 (3), 1-28.
- Gregory, M., and Jukes, R. (2001). *Unemployment and subsequent earnings: estimating scarring among British men 1984-94*. Oxford: University of Oxford.
- Hart, Oliver and Moore, John (1988). Incomplete Contracts and Renegotiation, *Econometrica*, 56(4), pp. 755–785.
- Hall, P. and D. Soskice, Eds. (2001). *Varieties of capitalism: the institutional foundations of comparative advantage*. Oxford, Oxford University Press.
- IMF (2010), *World Economic Outlook 2010. Recovery, Risk and Rebalancing*, Washington DC: International Monetary Fund.
- Lindbeck, A. & D.J. Snower (1986), Wage setting, unemployment, and insider-outsider relations, *American Economic Review*, 76(2): 235-239
- Marsden, D. (2010). The growth of extended 'entry tournaments' and the decline of institutionalised occupational labor markets in Britain. CEP Discussion paper.
- Manning, A., & Petrongolo, B. (2008). The part-time pay penalty for women in Britain. *Economic Journal*, 118 (526), F28-F51.

- Mooi-Reçi, I. & Dekker, R. (forthcoming 2013), Fixed Term Contracts: Short-term Blessings or Long-Term Scars? Empirical Findings from the Netherlands 1980-2000, *British Journal of Industrial Relations*.
- Muffels, R., Ed. (2008), *Flexibility and Employment Security in Europe. Labor Markets in Transition*, Cheltenham, UK: Edward Elgar, 407 p.
- OESO (2011), *Divided We Stand, Why Inequality Keeps Rising*, Parijs: OESO Publishing.
- Muffels, R. (2012). Low Skill, Life Course Risks and Disadvantage in the Early Career: Youth Income and Employment Security in the British, German and Dutch labor Market. *GUSTO Working Papers WP3*, Tilburg University, pp. 42.
- Muffels, R. (Ed.) (2008). *Flexibility and Employment Security in Europe. Labor Markets in Transition*. Cheltenham: Edward Elgar, p. 407.
- Muffels, R. and Luijkx, R. (2008). Labor market mobility and employment security of male employees in Europe: 'Trade-off' or 'flexicurity'? *Work, Employment and Society*, 22, 221–241.
- Nickell, S. (1997). Unemployment and labor market rigidities: Europe versus North-America." *Journal of Economic Perspectives* 11:55-74.
- OECD (2010), *Economic Outlook 2010, Moving beyond the job crisis*, Parijs: OECD Publishing.
- OECD (2011). *Pensions at a Glance 2011: Retirement-Income Systems in OECD and G20 Countries* (www.oecd.org/els/social/pensions/PAG).
- OECD (2010). *Economic Outlook 2010. Moving beyond the job crisis*. Paris: Organization for Economic Cooperation and Development.
- Osterman, P. (1996). *Broken ladders: Managerial Careers in the New Economy*. New York: Oxford University Press.
- Perugini, C. and F. Pompei (2009). Technological change and income distribution in Europe. *International Labor Review* 148(1-2): 123.
- Pissarides, C. (1992). Loss of skill during unemployment and the persistence of employment shocks. *Quarterly Journal of Economics*, 107, 1371-1391.
- Preis, M. J. (2004). Persistence of Employment Fluctuations: A Model of Recurring Job Loss. *Review of Economic Studies*, 71, 193-215.
- Ruhm, C. J. (1991). Are workers permanently scarred by job displacement? *American Economic Review*, 81 (1), 319-325.
- Ryan, P. (2001). The School-to-Work Transition. *The Journal of Economic Literature*, 39(1), 34-92.
- Scherer, S. (2004). Stepping-stones or traps? The consequences of labor market entry positions on future careers in West Germany, Great Britain and Italy. *Work Employment and Society*, 18 (2), 369-394.
- Schmid, G. and Gazier, B. (eds.) (2002). *The Dynamics of Full Employment: Social Integration Through Transitional Labor Markets*. Cheltenham, UK and Brookfield, US: Edward Elgar.

Schmid, G. (2011), The Future of Employment Relations: Goodbye 'Flexicurity' – Welcome Back Transitional Labor Markets?, Amsterdam-AIAS, p. 1-35.