

The London School of Economics and Political Science



*Essays on Labour Market Dualisation in Western Europe:
Active Labour Market Policies, Temporary Work Regulation
and Inequality*

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Declaration

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Abstract

European labour markets are increasingly divided between insiders in full-time permanent employment and outsiders in precarious work or unemployment. Using quantitative as well as qualitative methods, this thesis investigates the determinants and consequences of labour market policies that target these outsiders in three separate papers.

The first paper looks at Active Labour Market Policies (ALMPs) that target the unemployed. It shows that left and right-wing parties choose different types of ALMPs depending on the policy and the welfare regime in which the party is located. These findings reconcile the conflicting theoretical expectations from the Power Resource approach and the insider-outsider theory.

The second paper considers the regulation and protection of the temporary work sector. It solves the puzzle of temporary re-regulation in France, which contrasts with most other European countries that have deregulated temporary work. Permanent workers are adversely affected by the expansion of temporary work in France because of general skills and low wage coordination. The interests of temporary and permanent workers for re-regulation therefore overlap in France and left governments have an incentive to re-regulate the sector.

The third paper then investigates what determines inequality between median and bottom income workers. It shows that non-inclusive economic coordination increases inequality in the absence of compensating institutions such as minimum wage regulation. The deregulation of temporary work as well as spending on employment incentives and rehabilitation also has adverse effects on inequality. Thus, policies that target outsiders have important economic effects on the rest of the workforce.

Three broader contributions can be identified. First, welfare state policies may not always be in the interests of labour, so left parties may not always promote them. Second, the interests of insiders and outsiders are not necessarily at odds. Third, economic coordination may not be conducive to egalitarianism where it is not inclusive.

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List of Abbreviations

ALMPs	Active Labour Market Policies
CDD	Contrat à Durée Déterminée
CDI	Contrat à Durée Indéterminée
CDU	Christlich Demokratische Union
CFTC	Confédération Française du Travail Catholique
CFDT	Confédération française démocratique du travail
CFE-CGC	Confédération française de l'encadrement - Confédération générale des cadres
CGPME	Confédération Générale du Patronat des Petites et Moyennes Entreprises
CGT	Confédération Général du Travail
CMEs	Coordinated Market Economies
EPL	Employment Protection Legislation
EU	European Union
FN	Front National
FO	Force Ouvrière
FTCs	Fixed Term Contracts
LCR	Ligue Communiste Révolutionnaire
LMEs	Liberal Market Economies
LO	Lutte Ouvrière
MEDEF	Mouvement des Entreprises de France
MMEs	Mixed Market Economies
OECD	Organisation for Economic Cooperation and Development
PCF	Parti Communiste Français
PES	Public Employment Services
PLMPs	Passive Labour Market Programmes
PPE	Prime Pour l'Emploi
PR	Power Resource approach

PRISME Professionnels de l'Intérim, Services et Métiers de l'Emploi
PS Parti Socialiste Français
SMIC Salaire Minimum Interprofessionnel de Croissance
SPD Sozialdemokratische Partei Deutschlands
TAW Temporary Agency Work
UMP Union pour un Mouvement Populaire
VoC Varieties of Capitalism

Note on the structure of the thesis

This thesis conforms to the guidelines of the London School of Economics and Political Science specifying that a series of three papers of publishable standard, with an introduction, and conclusion, where the total word count does not exceed 100,000 words, can be submitted instead of a conventional book thesis.

In line with the guidelines, this thesis starts with an introductory chapter, followed by a series of three articles, and finishes with a concluding chapter. The first paper of the thesis has already been published in the *Journal of European Social Policy* (Vlandas, 2013a). The second paper has been published in *Politics&Society* (Vlandas, 2013b). The third paper is under review (revise and resubmit) at the *Socio-Economic Review*. All of the work submitted in this thesis has been carried out following my initial registration for a PhD at the European Institute.

INTRODUCTION

THE DETERMINANTS AND CONSEQUENCES OF LABOUR MARKET POLICIES

“Outsiders have become a significant part of the political economy of industrialised nations. The emergence of outsiders... is the result of political factors and, in turn, has political consequences”

Rueda (2007: 220) *Social Democracy Inside Out*.

What determines what workers get in contemporary capitalist societies? More specifically, what explains the continuing differences in labour market policies and outcomes across European countries? These questions are central to the comparative political economy research agenda and the organisation of capitalism in Western Europe.

During the post-war period, advanced industrial capitalism was organised to solve three recurrent problems concerning the level of wages, work and productivity (Hall, 2007: 42, 43). First, the ‘wage problem’ entailed striking the right balance between wage moderation to retain competitiveness and sufficient wages to support aggregate domestic demand. Second, solving the ‘work problem’ required maximising employment rates while guaranteeing workers’ livelihood when in unemployment.

Third, the ‘productivity problem’ concerned the efficient use of workers and capital, which required endowing workers with sufficient and adequate skills.

With the shift to a post-industrial economy and the advent of mass unemployment and precarious work,¹ labour markets have become more dualised as the “rights, entitlements, and services provided” to insiders in permanent full-time employment and outsiders in precarious work or unemployment are increasingly differentiated (Emmenegger *et al.*, 2012: 10). This trend has profoundly altered the ability – and preferences – of governments to solve the three problems that all advanced economies face.

Mass unemployment has challenged the ability of welfare states to guarantee the livelihood of unemployed workers. The expansion of precarious work also means that countries with lower unemployment rates are not necessarily more conducive to labour’s interests. While temporary work provides flexibility at the margin for companies, it also discourages both the worker and the employer from investing sufficiently in skills. Precarious work may also undermine workers’ bargaining power and result in excessively low wage growth with potentially adverse effects on domestic aggregate demand.

Although labour market dualisation is not a new phenomenon (e.g. Piore and Doeringer, 1984; Piore and Berger, 1980), its empirical prevalence and theoretical relevance has increased tremendously in the last three decades. Indeed, unemployment

¹ I use ‘precarious work’ for simplicity to refer to non-standard forms of employment which include both temporary and involuntary part-time work.

and temporary work has evolved from being a marginal phenomenon to being a major feature of nearly all Western European countries. Therefore, labour market policies that target outsiders are increasingly salient given the rise of outsiders in Western Europe and the wide implications these policies have for the whole workforce.

As a result of labour market dualisation, the answer to the question of what workers get and how to make sense of the diversity in labour market policies and outcomes across Western Europe needs to be reconsidered. Therefore, the starting point of this thesis is the increased dualisation of European labour markets between insiders and outsiders, which means the answers to these questions can no longer be assumed to be the same for all workers. While the main approaches in comparative political economy explain a great deal about the conditions of workers in standard employment and the policies that target them, we still know comparatively little about labour market outsiders.

This thesis provides an answer to these questions for the case of labour market outsiders: the unemployed and workers in non-standard forms of employment such as temporary work. It also shows that policies that target outsiders have significant implications for labour market insiders. More specifically, this thesis demonstrates that labour market policies that target different groups of outsiders have distinct political and institutional determinants and important consequences for wage inequality among insiders.

The background: European labour markets under pressure

Western European countries have faced a number of exogenous and endogenous structural shifts during the last four decades. First, two supply side oil shocks hit Western European economies in the 1970s leading to a rise in non-labour costs in a context where workers' productivity growth was slowing down (Blanchard, 2006). Second, the composition and sectoral distribution of employment in the economy was drastically altered as the share of workers in the industrial sector fell while women's labour market participation rose.

Third, the demise of Fordism and the process of deindustrialisation weakened complementarities between various workers and as a result generated a conflict between the interests of skilled and unskilled workers (Iversen and Soskice, 2009). Lastly, technological progress and greater trade openness led to a rise in the demand for skilled workers relative to unskilled workers. As a result, the market premium for skill rose generating greater inequality between these workers (Wood, 1994; Burtless, 1995; Freeman and Katz, 1995; Acemoglu, 2002; Goldin and Katz, 1996).

Deindustrialisation, greater openness, technological change and the expansion of labour supply have resulted in a profound reconfiguration of European labour markets. The share of outsiders - understood here as including both precarious and unemployed workers - in the total workforce of Western European countries has risen drastically since the 1970s. Explaining the determinants and consequences of labour market policies that target outsiders is therefore increasingly theoretically and empirically relevant.

While these shifts have led to significant pressures and problems in the labour market, policy makers have been increasingly constrained in their ability to tackle these problems. The adhesion to the European Union (Zeitlin and Pochet, 2005; Leibfried and Pierson, 2000; Scharpf, 1997) and the increased globalisation of trade and finance (Goodman and Pauly, 1993; Andrews, 1994; Notermans, 1993) have generated significant budgetary and competitive pressures which have severely restricted governments' policy choices.

As economic liberalism spread (Simmons *et al.*, 2006), the scope of policies available to governments has also been restricted by the demise of Keynesianism as a guiding policy paradigm, alongside its replacement by monetarism (Hall, 1986). Whereas in the post-war period unemployment was seen as the responsibility of macroeconomic authorities, since the 1980s unemployment became the responsibility of social partners in the labour markets (Notermans, 2000: 14). With respect to labour market policies, instruments that were designed to insure workers against labour market risks increasingly had adverse effects on employment rates (Nickell and Layard, 1999).

Notwithstanding these common trends in Europe, the ability of different systems to adapt existing policies and institutions to new problems in the labour market varies a great deal (Scharpf and Schmidt, 2000; Esping-Andersen, 1996; Hall, 2007; Rhodes and van Apeldoorn, 1998). Indeed, European countries are characterised by different welfare and production regimes (Esping-Andersen, 1990; Hall and Soskice, 2001; Kitschelt *et al.*, 1999; Soskice *et al.*, 2000). As labour market policies

and institutions remain diverse across Europe, inequality, poverty and precarious employment do not affect all countries to a similar extent.

Point of departure: The dualisation of labour markets

The broad theme of this thesis is the determinants of cross-national differences in labour market policies and outcomes. Existing scholarship in comparative political economy tends to approach this topic by identifying a constant set of factors, such as left-wing and union strength or economic coordination, which arguably determine workers' employment conditions and benefit entitlements across the board.

For proponents of the Power Resource approach (e.g. Korpi, 1983; 2006; Huber and Stephens, 2001; Korpi and Palme, 2003), labour's interests are homogenous and their representatives - whether in left parties or trade unions - best serve these interests by expanding the welfare state, which in turn fosters egalitarian wage outcomes. The strength of labour determines the generosity of welfare state policies, how egalitarian society is, and also affects subsequent welfare state reform dynamics (e.g. Allan and Scruggs, 2004).

By contrast, the Varieties of Capitalism (VoC) literature (Hall and Soskice, 2001; Soskice *et al.*, 2000; Kitschelt *et al.*, 1999) contends that the degree of non-market coordination between different actors, especially firms, is a key determinant of welfare state policies and outcomes. Firms need to solve coordination problems in five spheres of the economy: vocational training and education, corporate governance, inter-firm relations, internal management and structure of the firm, and industrial relations.

In Coordinated Market Economies (CMEs), firms rely on non-market coordination to solve these problems. Firms develop production strategies based on incremental innovation that require workers with specific skills. For employers to invest in these specific skills, in turn, necessitate guarantees that firms do not poach high-skilled workers from their competitors. Similarly, workers need to know that they are unlikely to be dismissed after having invested in those non-transferable skills. As a result, CMEs are characterised by high employment protection legislation and more egalitarian wage bargaining. In sum, for the VoC literature, the type of coordination ultimately determines what workers get.²

However, both theories implicitly agree that the factors they identify can be systematically associated with a set of policies which are beneficial or detrimental to the whole of labour. Thus, these theories assume that labour is a homogenous actor with common interests and preferences and that welfare state policies and economic coordination are conducive to these interests. Both theories provide convincing explanations of the cross-national variation in labour market policies such as passive unemployment benefits and Employment Protection Legislation (EPL) of permanent workers that were historically created for labour market insiders.

However, they are less able to explain the cross-national variation in policies that concern outsiders such as EPL of temporary workers and Active Labour Market Policies (ALMPs). In line with recent dualisation literature, I argue this is due to labour interests and preferences becoming increasingly divided (Rueda, 2007; Iversen

² Though note that the theory can accommodate additional factors – see Hancké *et al.* (2007).

and Soskice, 2009; Häusermann and Schwander, 2009; Emmenegger, 2009). Mirroring these divisions within labour, welfare state policies and institutions are also becoming more dualised by generating systematic differences in the entitlements and policies that accrue to insiders and outsiders (Palier and Thelen, 2008; Palier and Thelen, 2010; Eichhorst, 2010; Emmenegger *et al.*, 2012).

As a result, the conditions of different outsider groups and the labour market policies that target them are driven by distinct political and institutional dynamics. Studies of labour market policies must therefore distinguish between workers in full-time permanent employment: the insiders; and those in precarious work or unemployment: the outsiders.

Building on this literature, I argue further that we need to look at specific groups of outsiders separately, given the heterogeneity of this category of workers. The conditions and interests of unemployed, temporary and low income workers cannot be assumed *a priori* to be the same. Also, each outsider group has a different degree of economic and political salience. Policies that target different types of outsiders are therefore not necessarily driven by the same political and institutional determinants. As a consequence, it is necessary to look at different outsider groups separately and to develop different explanations for the conditions of each outsider group.

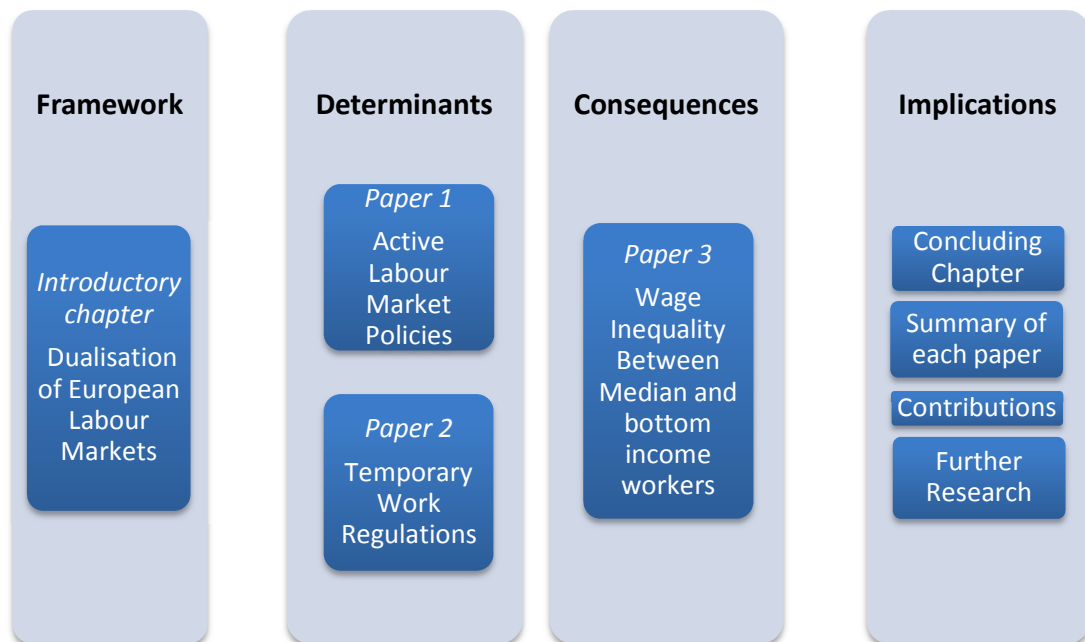
Research question and brief summary of argument

In this thesis, the ‘black box’ of labour market outsiders is unpacked by separately considering different outsider groups. The thesis unfolds in three separate papers that address distinct questions. The articles are related through their common focus on the comparative political economy of labour dualisation in Western European countries and are united by the broad question of what accounts for the cross-national variation in outsiders’ conditions and in turn, how these affect the rest of the workforce.

More specifically, in the first two articles, this thesis analyses the political and institutional determinants of outsiders’ welfare by looking at two groups of outsiders: the unemployed and temporary workers. Each group of outsider is treated in a separate and self-contained article. The third paper then investigates the effects of policies that target distinct groups of outsiders on inequality between low income and median income insiders. The overall structure of the thesis is summarised in Figure 1.

The first article looks at ALMPs targeted at unemployed workers. There are currently contradictory theoretical expectations concerning the political determinants of ALMPs. The Power Resource approach contends that the left always prefers to spend more on ALMPs (e.g. Huo *et al.*, 2008; Boix, 1998) whereas the insider-outsider literature (Rueda, 2006; Rueda, 2007) argues that left parties do not necessarily care about the potential fate of outsiders, and hence may not spend more on ALMPs.

Figure 1: Outline of thesis



To solve these conflicting expectations, I argue that ALMPs encompass distinct policies that have very different effects on insiders and outsiders. The choice of ALMPs by political parties is determined by both the impact of the policy and the welfare regime in which it is located. Specifically, I show that left-wing parties spend less on policies that have adverse effects on insiders, such as employment incentives and rehabilitation. By contrast, left parties in Continental Bismarckian welfare regimes spend more on direct job creation. Finally, spending on training is not driven by partisanship but rather by the welfare and production regimes in which governments make policy choices.

The second paper investigates the political and institutional determinants of changes in EPL of temporary workers. Most of the comparative political economy literature has so far focused on EPL of permanent workers (e.g. Algan and Cahuc,

2004; Emmenegger, 2011). While most countries have deregulated their temporary work sector, France went in the opposite direction despite sharing many of the conditions that are presumed to lead to deregulation.

I argue that in France, permanent workers are adversely affected by the expansion of temporary work because they are particularly replaceable.³ As a result, permanent workers have overlapping interests with temporary workers and the left in France seeks to regulate temporary work. Replaceability is in turn higher in countries where wage coordination is low, workers' skills are general and temporary and permanent workers have a more similar educational profile.

The third paper looks at gross earnings inequality between median income full-time permanent workers and those located in the bottom decile of the income distribution. Previously egalitarian countries that have coordinated market economies or social democratic welfare regimes have *in some cases* become more unequal than countries with Bismarckian welfare regimes and the British liberal market economy. To solve this puzzle, I investigate the effect of labour market dualisation and revisit the impact of economic coordination and welfare state policies on inequality.

The findings suggest that increased labour market dualisation - in the form of a more deregulated and larger temporary work sector - increases inequality among insiders. Second, while decommodifying labour market policies do indeed reduce inequality, recommodifying policies, such as employment incentives increase

³ Replaceability can be defined as the ability of employers to replace permanent staff by temporary workers (see paper 2 for more information).

inequality. This article thereby uncovers the impact of the dependent variables of my first two papers on inequality among insiders. Third, economic coordination can have adverse effects on inequality in the absence of an inclusive union movement or national minimum wage regulations.

The remainder of this introductory chapter begins by more extensively documenting the broad trends in labour markets and policies that target insiders and outsiders. The second section briefly investigates the strengths and weaknesses of the existing literature in explaining labour market policies. In the third section, each paper's puzzle, argument and contribution is then discussed in more detail.

1. Trends in labour markets and policies

The problem load in the labour markets of most Western European countries has risen tremendously in the last three decades. Unemployment and inequality have been rising in most countries and welfare state policies have become increasingly unable to cope with the emergence of new social risks (1.1). In addition, a number of new constraints on policy makers' margin of manoeuvre have appeared (1.2). As a result, new policy prescriptions and instruments were introduced in the 1990s, however certain labour market problems nevertheless persist (1.3).

1.1. The rise of labour market outsiders

After the two golden decades of sustained European economic growth and low unemployment (1950-1973), mass unemployment became a large scale and long-term phenomenon. This threatened to undermine the economic efficiency and social stability of European capitalism. In the period 1960-1964, the standard unemployment rate was inferior to 2.5% in the vast majority of Western European countries. By 2002, only four European countries had an unemployment rate under 5% (Layard *et al.*, 2005: xxi). This rise in unemployment is partly explained by broader structural and exogenous factors such as deindustrialisation and globalisation but was also driven by the policy choices of various governments, for instance the shift from Keynesianism to the low inflation regime of monetarism.⁴

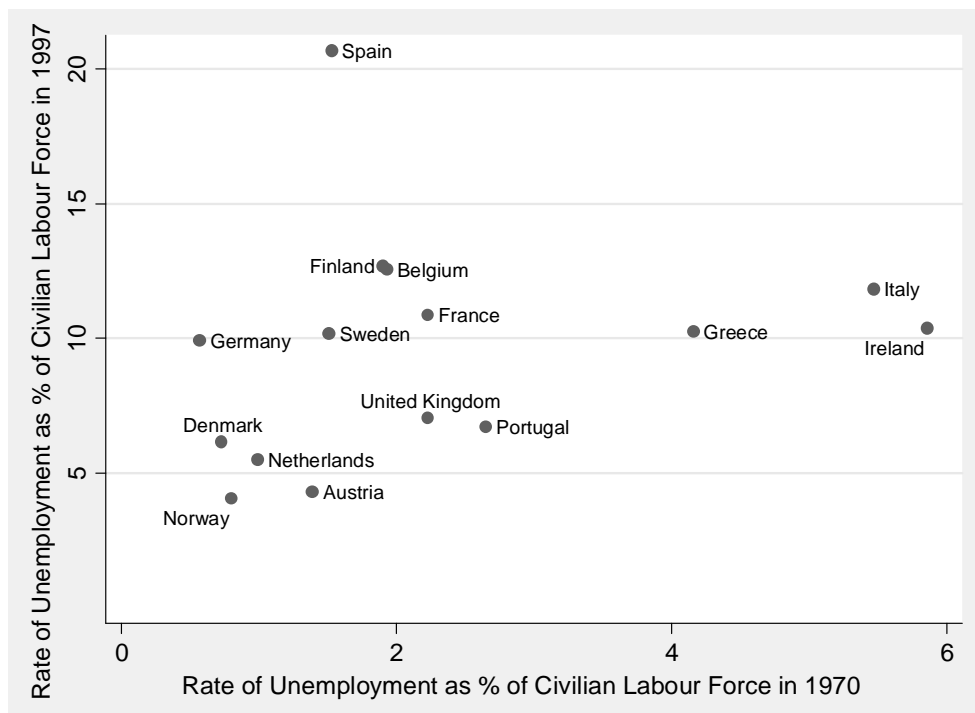
As shown in Figure 2, unemployment was a marginal phenomenon in Western Europe in 1970. The unemployment rate of most European countries was under 4% and was under 6% in all Western European countries. Unemployment rates started rising from the mid-1970s in most continental European countries, and in the 1990s it began to rise in Scandinavia. By 1997, many countries' unemployment had risen above 10% and almost all European countries had unemployment rates above 5%.

The contractual position of those participating in labour markets has also undergone profound changes. Part-time and temporary employment, as a share of total dependent employees, has been rising significantly across Europe since 1980. This is

⁴ See sections 1.2 and 1.3 for details on the exogenous and endogenous factors that account for the rise of unemployment. Labour market dualism therefore cannot be seen as being completely exogenous of governments' policy choices.

particularly the case among “women, low skilled workers, ethnic minorities and young people” (Daguerre, 2007: 7). This significant increase in non-standard forms of employment was in many cases driven by governments’ reforms that deregulated the labour markets at the margin. These reforms have facilitated the hiring of workers on non-standard contracts by firms seeking to increase employment flexibility in the context of strict labour market regulations of permanent contracts. By 2007, 15% of dependent employees were in temporary contracts, and about 18% were in part-time contracts in Europe.⁵

Figure 2: Unemployment in Western Europe between 1970 and 1997



Source: OECD Annual Labour Force Statistics database (2000).

⁵ Source: OECD Annual Labour Force Statistics database (2010). Note: Europe is an average of all European countries who are also members of the OECD.

By 2005, many countries had more than 20% of their workforce either in unemployment or in temporary contracts. Some countries such as Spain had more than 30% of dependent employees in temporary contracts.⁶ The prevalence of unemployment and temporary work among young workers was even higher. The increase in the number of precarious workers raised novel policy challenges because these workers bear most of the so-called new social risks (Armingeon and Bonoli, 2006).

Resilient unemployment, rising wage inequality and deregulation at the margin of the labour market have contributed to divisions within the labour movement. This has generated strategic issues for both left-wing political parties and trade unions. Long-term unemployment means that sections of labour have become permanently disconnected from the labour market leading to political apathy. Workers with discontinuous and unstable employment patterns are neither well-represented by trade unions, which find it hard to organise them (Ebbinghaus, 2006), nor well-integrated in “cross-class coalitions” (Daguerre, 2007: 9).

Wage inequality has also polarised high skill and low skill workers, potentially undermining the traditional coalition between these workers (Iversen and Soskice, 2009). The interests and preferences of full-time workers and those at the margin or outside the labour markets have as a result become distinct (Rueda, 2007). In turn, dualisation of labour force preferences and interests is increasingly reflected in the dualism of welfare state policies (Häusermann and Schwander, 2009; Eichhorst, 2010; Palier and Thelen, 2010).

⁶ Source: OECD Annual Labour Force Statistics database (2010).

1.2. Constraints on labour market policies

The 1973 and 1979 oil shocks led to a fourfold increase in the price of oil while total factor productivity growth experienced a marked slowdown (Blanchard, 2006). Thus, while the productivity of labour fell, non-labour production costs were increasing. In addition, governments had to address the “double threat of cost-push inflation and demand-gap unemployment” (Scharpf, 2000: 190). These shocks had adverse effects on unemployment, though it is contested whether these effects have been temporary or permanent (Blanchard and Wolfers, 2000; Nickell *et al.*, 2001). In this context, three sets of constraints on European policy makers emerged: (1) ideological developments and discredited policies; (2) economic internationalisation and Europeanisation, and; (3) deindustrialisation as well socio-economic changes.

The apparent inability of Keynesianism to deal with the stagflation of the 1970s marked an important turning point. Fiscal policy as an expansionary policy tool to ensure full-employment was at least partly abandoned (Pierson, 2006). The new paradigm, New Classical Economics, introduced the notion of rational expectations⁷ in the perfect market clearing assumptions of classical economics. Fiscal policy could at best have a short run impact on the economy. In the long run, agents would adapt their inflationary expectations upwards. Unemployment would return to its natural rate and be determined by institutional fundamentals, but the economy would be at a higher natural rate of inflation. In its most restricted version, the new theory argued that a perfectly benevolent government could not improve upon the market clearing outcome

⁷ Rational expectations are “expectations based upon an accurate knowledge of the parameters describing the economy and all available information” (Hillier, 2004: 174).

even in the short-run. Any fiscal or monetary intervention aimed at the macro management of aggregate demand would be fully anticipated and hence neutralised by private agents in the economy (Hillier, 2004).⁸

Meanwhile, the monetarist revolution emphasised the importance of low inflation and the primacy of monetary policy (Hall, 1986). Central banks became independent from elected politicians (Marcussen, 2005). As a result, governments became more limited in their ability to manage aggregate demand through both fiscal and monetary policy to deal with labour market problems.

Moreover, some policy options were discredited by their perceived failure to succeed in solving policy problems. For instance, the promotion of older workers' early exit from the labour market as a solution to unemployment has not been a success. In fact, the reliance on early retirement schemes in the 1980s has drastically reduced employment rates in continental Europe while also significantly increasing social contributions costs (Huo, 2009; Layard *et al.*, 2005). Similarly, unemployment benefits have been criticised for their detrimental effects on unemployed workers' incentives to return to work (Nickell *et al.*, 2005).

A number of broader structural changes in the labour market have further limited policy options. First, changing gender roles (Castles, 2004; Esping-Andersen *et al.*, 2002) generated new pressures in labour markets and novel needs for welfare

⁸ However, see Buiter (1980) for an early rebuttal of this argument. Contradicting New Classical Economics, more recent New Keynesian literature has also demonstrated that the ineffectiveness of government policy is not determined by rational expectations but by the assumption that prices are not rigid (Iversen and Soskice, 2006; Carlin and Soskice, 2006).

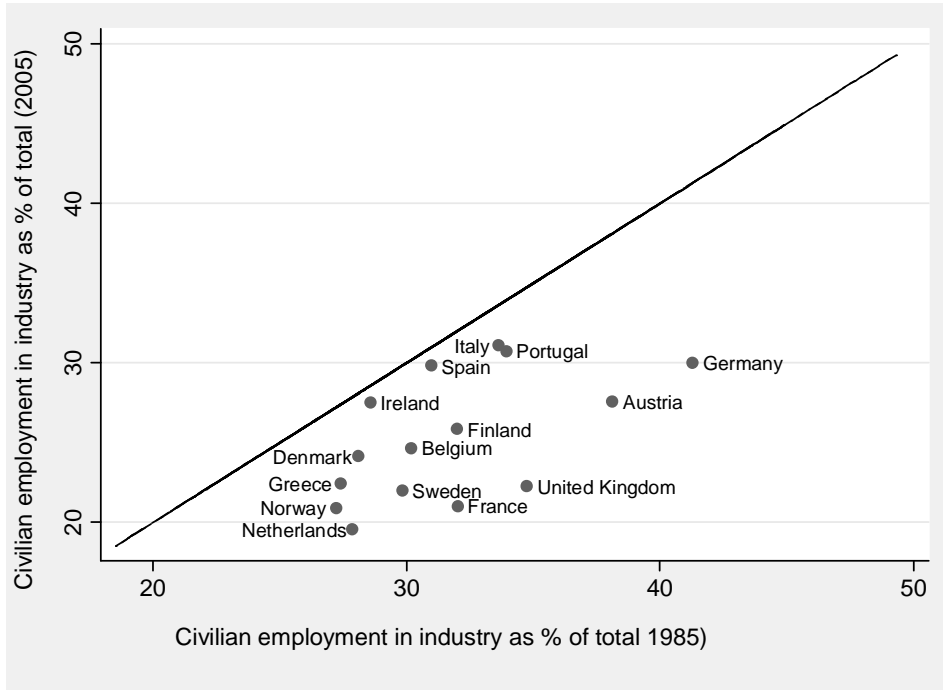
state policies. Indeed, female labour force participation increased in most countries leading to a marked increase in total labour supply (Jaumotte, 2003). For instance, between 1956 and 2006, the share of women in civilian employment increased from 33% to 47% in France, from 36% to 45% in Germany, and from 32.9% to 46% in the UK.⁹

Second, the transition from an industrial to a service-oriented economy (Iversen and Cusack, 1998: 346) has eroded the stable full-time employment relationship and undermined the ability of welfare state institutions to address the new risks atypical workers face (Armingeon and Bonoli, 2006; Esping-Andersen *et al.*, 2002; Bonoli, 2007). Indeed, between 1985 and 2005, all western European countries experienced falls in the share of their workforce employed in the manufacturing sector (see Figure 3).

While new problems in the labour market have emerged, policy makers have been increasingly constrained in their ability to tackle these problems. The increased globalisation of trade and finance (Goodman and Pauly, 1993; Andrews, 1994; Notermans, 1993; Scharpf and Schmidt, 2000; Garrett, 1998) has generated significant budgetary, as well as competitive pressures, and severely constrained governments' policy choices. Between 1985 and 2005, only Norway experienced a drop in its Trade to GDP ratio (see Figure 4).

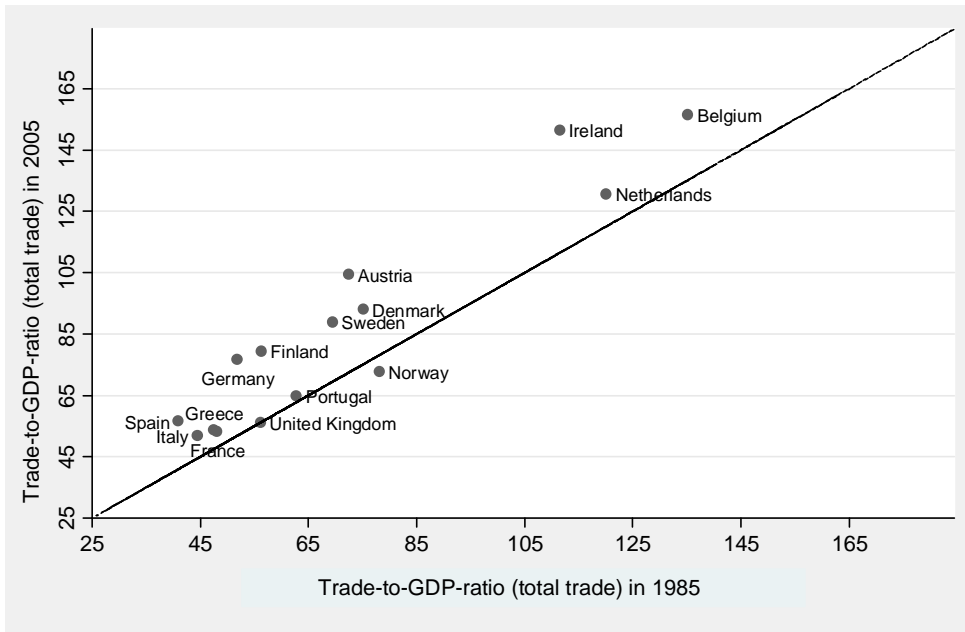
⁹ See the OECD Annual Labour Force Statistics database (2007).

Figure 3: Deindustrialisation in Western Europe



Source: OECD Structural Analysis Database (2007).

Figure 4: Openness in Western Europe



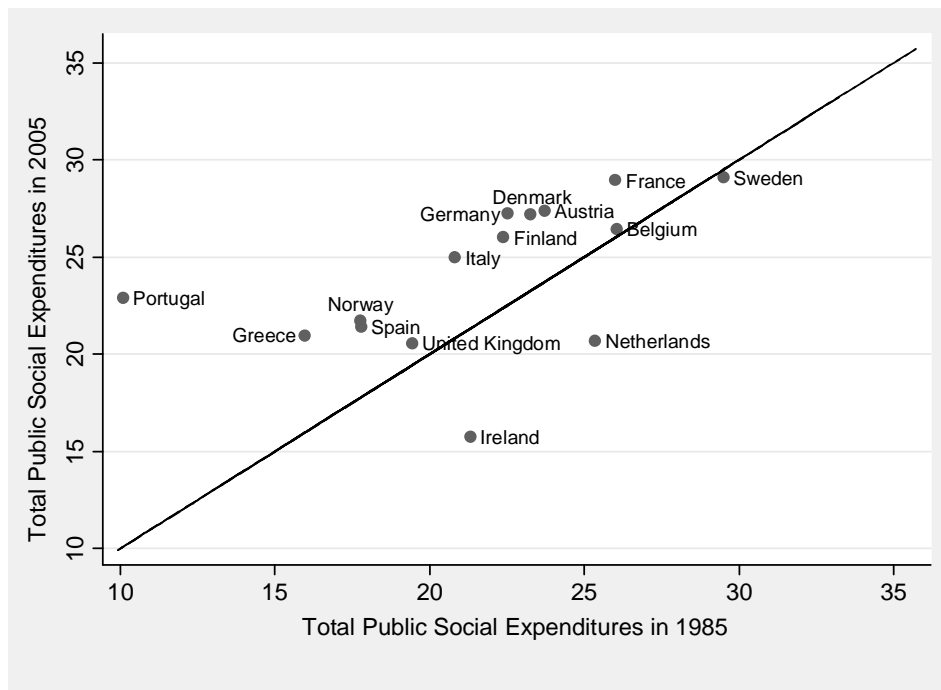
Source: OECD Main Economic Indicators database (2007).

The adhesion to the European Union (Zeitlin and Pochet, 2005; Leibfried and Pierson, 2000; Scharpf, 1997; Scharpf, 1999) also had an impact on labour market policies because certain policy options have been ruled out by the constraints imposed by the EU while certain policy reforms have been promoted. For instance, certain policies, such as state subsidies to companies, were prohibited under articles 92-94 of the Rome Treaty while other policies, such as Active Labour Market Policies, are being promoted (van Vliet and Koster, 2011).

At least initially, these changes have led to more, not less spending on welfare state policies (Iversen and Cusack, 1998; Rodrik, 1998). Most studies contend welfare state spending increases as governments attempt to tackle the risks generated by openness (Katzenstein, 1985; Cameron, 1978: 71; Garrett, 1998; Rodrik, 1998: 997). Between 1985 and 2005, only the Netherlands and Ireland experienced significant falls in total social expenditure (see Figure 5).

However, higher unemployment rates (Swank, 2001), pension spending commitments (Myles and Pierson, 2001) and health-related expenditure (Giaino, 2001) are straining public budgets. On the financing side, all OECD countries, apart from the UK and the US, experienced marked increases in their level of taxes and social contributions (Scharpf, 2000: Table 3, 199). Thus, European governments increasingly operate in a context of heightened fiscal austerity where the politics of welfare state retrenchment cannot be assumed to mirror those of welfare state expansion in the post-war period (Pierson, 2001).

Figure 5: Total Public Social Expenditures in Western Europe



Source: OECD Social Expenditures database (2010).

1.3. New policy recommendations

While European governments cannot easily retrench their welfare state arrangements (Pierson, 1996), they cannot easily increase the financing of their welfare state either, because higher payroll taxes may undermine employment (Scharpf and Schmidt, 2000). Therefore, European welfare states have to tackle new social risks while operating under conditions of austerity and facing significant resistance to reforming pre-existing social policies (Pierson, 1994; 1998; 2001).

Countries increasingly seem to be faced with a policy trilemma, where they can only achieve two out of the following three objectives: equality, high employment and budget stability. Anglo-Saxon countries have overall achieved higher employment

rates but this has been at the cost of much higher inequality. Scandinavian countries have achieved high employment rates and equality but this may generate unsustainable debt levels. Continental Europe has high equality and budget stability but this results in low employment rates which may undermine the long-term viability of the system (Iversen and Wren, 1998).

Moreover, as a result of the apparent inability of existing policy paradigms to deal with unemployment, new policy prescriptions were devised by both economists and international organisations. In the 1994 Jobs Study, the OECD advocated more flexible wages, lower employment protection and a higher emphasis on active labour market policies (OECD, 2006: 6). Employment policy being promoted at the EU level also reflects this trend. For instance, the 1994 Essen European Council emphasised the need to have “more flexible work organisation” and promote the “reduction of non-wage labour costs to encourage hiring”.¹⁰

Thus, in the field of labour market policies, reforms were mostly about ‘*recalibration*’ rather than cost containment (Pierson, 2001). Most labour market policies were reformed towards a ‘workfarist’ or ‘activating’ welfare state (Peck, 2001; Torfing, 1999; Clasen and Clegg, 2006). Activation increases the incentives of unemployed workers to return to work while workfare imposes stricter conditions to benefit recipients. Notwithstanding this common trend across European countries,

¹⁰ See EU online summaries of legislation (accessed on the 26th of November 2012) at: http://europa.eu/legislation_summaries/institutional_affairs/treaties/amsterdam_treaty/a13000_en.htm

different paths of reforms that follow existing welfare regimes can still be delineated (Dingledey, 2007; Barbier, 2004; Barbier and Ludwig-Mayerhofer, 2004).

In sum, as labour markets have undergone profound changes, enduring problems in the labour market have since emerged. Meanwhile, previous policies were challenged, ideological paradigms were overhauled and new constraints on policy making appeared. The emergence - and unanticipated effects - of new policies as well as significant changes in existing labour market policies raise the question of various governments' policy responses.

2. Diversity and change in European labour markets

Labour market policies have important implications for unemployment and inequality (2.1). Despite common pressures and policy problems, Western European governments have responded in very different ways (2.2). The Power Resource approach and the VoC literature are the two main comparative political economy literatures to explain the cross-national variation in labour market policies and outcomes (2.3).

2.1. The effects of labour market policies

By solving various market failures, welfare state policies can increase efficiency (Barr, 2005). However, debates remain which concern the optimal design of specific welfare state policies such as unemployment benefit systems and EPL. There

is a large portion of literature looking at the determinants of labour market performance (Siebert, 1997; OECD, 1994; Bruno and Sachs, 1985; Armstrong *et al.*, 1991). *Prima facie*, there seems to be a slightly negative relation between unemployment rates on the one hand and the replacement rate and duration of unemployment benefit systems on the other (Scarpetta, 1996; Elmeskov *et al.*, 1998; Nickell, 1997; Blanchard and Wolfers, 2000; Nickell *et al.*, 2005; IMF, 2003; Bertola *et al.*, 2001).

However, there is still disagreement concerning the effects of unemployment benefit systems on the level of unemployment (Layard *et al.*, 2005; Howell *et al.*, 2006; Howell, 2005; Baccaro and Rei, 2007). Some studies even find that higher replacement rates are associated with lower unemployment (Belot and van Ours, 2004: Table 7, 635).

Similarly, the effects of EPL on unemployment are unclear. Some authors find that it is associated with higher unemployment (IMF, 2003; Blanchard and Wolfers, 2000; Scarpetta, 1996; Lazear, 1990; Grubb and Wells, 1993; Di Tella and McCulloch, 1998). There is also evidence that the effects of high EPL are more marked on young workers' access to the labour market. Due to the idea that EPL may reduce flows out of unemployment, high EPL also tends to be associated with a higher incidence of long-term unemployment (Salvanes, 1997; Nickell, 1998). On the other hand, high EPL also mitigates job destruction and inflows into unemployment (Bertola, 1992).

Moreover, the presumed adverse impact of EPL on labour market performance has been widely challenged (Esping-Andersen *et al.*, 2000; Bentolila and Bertola, 1990; Oesch, 2010; Freeman, 2005). Deregulation of employment protection at the margin has been a partial success at best: while it increased turnover, the reduction in unemployment duration was limited (Blanchard and Landier, 2002). Deregulating employment protection at the margin may also have accentuated the existing segmentation or dualisation of labour markets (Gordon *et al.*, 1982; Piore, 1983; Lindbeck and Snower, 2002).

Even overall lower employment protection reduces both the outflow and the inflow into unemployment. Therefore the net effect on unemployment is unclear and empirical studies yield conflicting results (OECD, 2004: Chapter 2, 63). Amable *et al.* (2011) find that EPL actually improves employment performance. If high EPL is necessary to sustain institutional complementarities in CMEs, reducing it may also have adverse consequences on incremental innovation in these economies (Bassanini and Ernst, 2002).

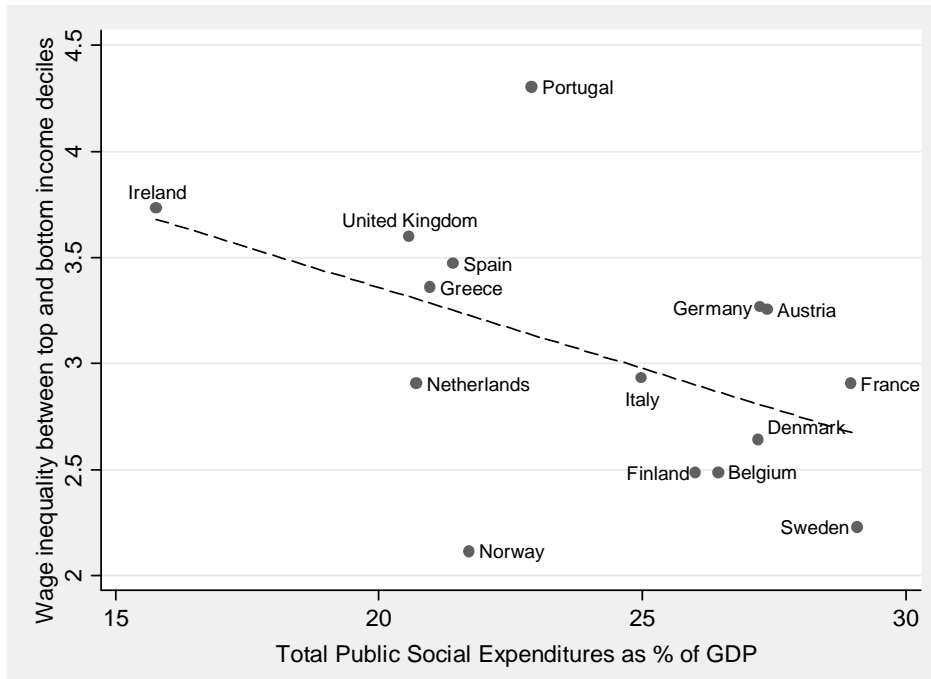
There are also mixed findings concerning the impact of ALMPs on unemployment and employment (Card, 2010; Martin and Grubb, 2001; Nickell and Layard, 1999; Oesch, 2010; Boone and van Ours, 2009; Estevão, 2003; Heckman *et al.*, 1999). The effectiveness of ALMPs is also contingent on macroeconomic conditions. More specifically, to be effective these programmes require “a reasonably buoyant supply of job vacancies in order to be effective” (Martin and Grubb, 2001: 107).

In addition, current research yields contradictory findings concerning which ALMP is most likely to enhance labour market performance. Some studies conclude that job search and training schemes are most effective in reducing unemployment whereas direct job creation programmes have no effect (Card, 2010). Layard *et al* (2005: xvi) notes that “job search assistance tends to have consistently positive outcomes but other types of measures, such as employment subsidies and labour market training, must be well-designed if they are to be effective”. By contrast, considering instead the impact of ALMPs on private sector employment, Estevão (2003) finds the most successful programme is direct creation.

Despite the on-going debates concerning the effects of labour market policies on employment performance, what is not contested is that the design of these policies has important efficiency implications. In addition, labour market and welfare state policies more generally also have important distributional implications.

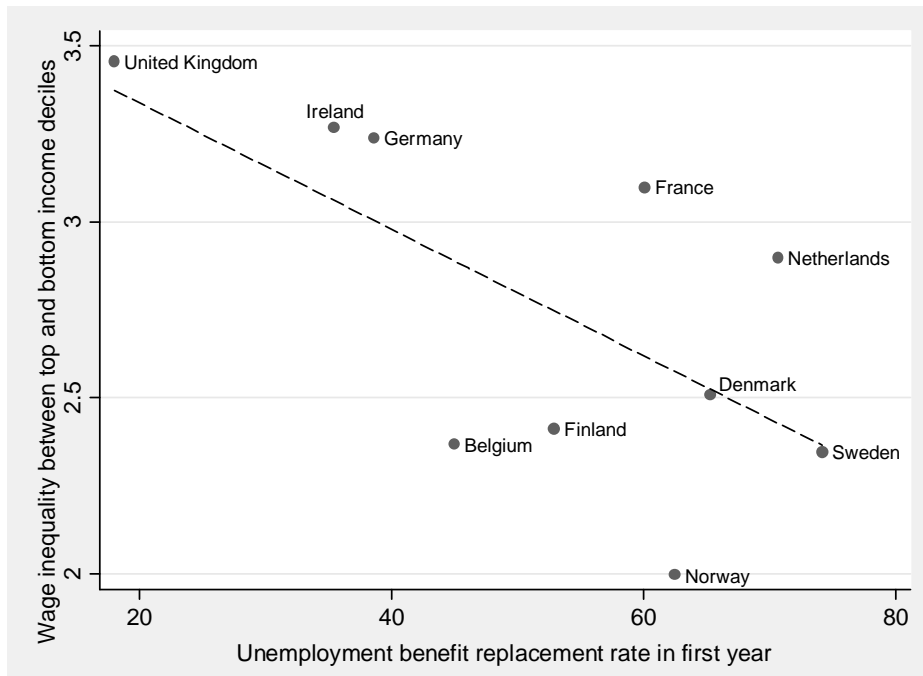
Figure 6 displays the cross-national variation in total welfare state expenditure as a percentage of GDP and wage inequality between the top and bottom income deciles for full-time dependent employees across Western European countries in 2005. Countries with more developed welfare states tend to decommodify workers to a greater extent. Greater decommodification leads to higher reservation wages and hence generates lower patterns of inequality. Thus, social democratic welfare regimes in Denmark, Sweden and Finland produce more egalitarian outcomes, while the liberal welfare regimes in the UK and Ireland tend to have more inequality (cf. Esping-Andersen, 1990).

Figure 6: Wage inequality and welfare state expenditures in Western Europe in 2005



Source: OECD Employment and Labour Market Statistics and CEPS-OECD data (2005).

Figure 7: Wage inequality and unemployment benefit replacement in 2000



Source: OECD Employment and Labour Market Statistics and CEPS-OECD data (2005).

Note: Data on wage inequality in the year 2000 is missing for Austria, Greece, Portugal, and Spain.

Figure 7 displays the relation between wage inequality and unemployment benefit replacement rates in the first year of unemployment. The shorter duration of unemployment benefit eligibility may increase the incentives of unemployed workers to accept lower wages (Gangl, 2004; Addison and Blackburn, 2000; Petrongolo, 2009). There is evidence that stricter EPL as well as unemployment benefit's replacement rates and duration ultimately reduce inequality (Koeniger *et al.*, 2007).

Labour market policies are but one set of factors that influence inequality. Other relevant institutional and political factors include the tax system, union strength, wage bargaining centralisation and coverage, and minimum wage regulations (Checchi *et al.*, 2007; Wallerstein, 1999; Freeman, 1980; Freeman, 1982; Fortin and Lemieux, 1997; Traxler and Brandl, 2009; Card *et al.*, 2003). Countries with a larger share of their employees working for the public sector also leads to lower inequality because the wage distribution of government employees tends to be more egalitarian (Pontusson *et al.*, 2002; Garrett and Way, 1999).

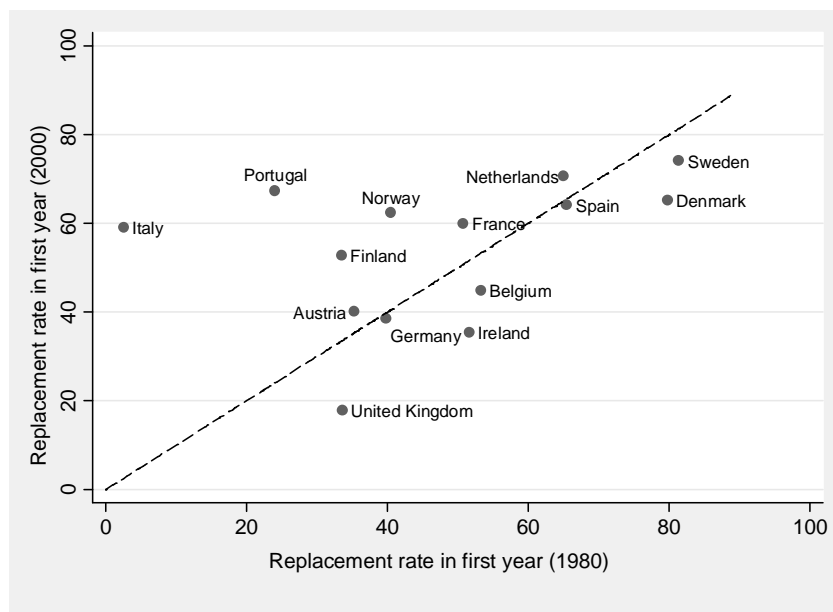
2.2. The diversity and determinants of labour market policies

European countries exhibit a wide diversity in the design of their unemployment benefit systems (Clasen and Clegg, 2003; Clasen, 2000). In the past three decades, the generosity of unemployment benefit systems has evolved along different paths across Europe. Figure 8 displays the evolution of the unemployment benefit replacement rates in the first year of unemployment in different countries. Two features stand out. First, countries have responded to labour market challenges in

vastly different ways in the last two decades. Second, countries continue to exhibit various arrangements in their labour market policies. The continued cross-national diversity in labour market policies is also apparent when considering EPL of regular workers (see Figure 9) and spending as a percentage of GDP on active and passive labour market policies in 2005 (see Figure 10).

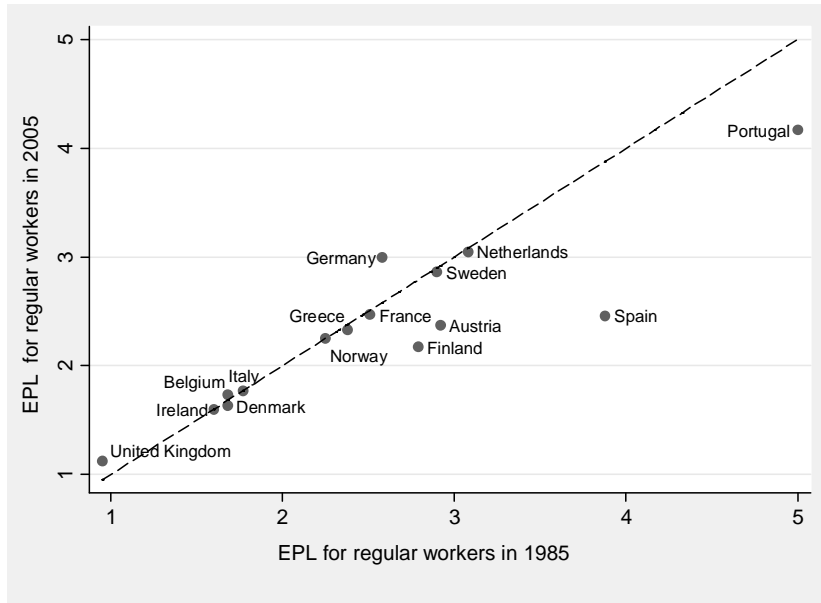
Two main literatures in comparative political economy have attempted to explain this cross-national diversity in labour market policies and institutions. The Power Resource approach explains developments in welfare state policies by analysing the strength of labour and its representatives (Korpi, 1978; Korpi, 1983; Korpi, 2006; Stephens, 1979). Where unions were historically stronger and the left controlled the government, the welfare state has become increasingly generous and universalistic (Huber and Stephens, 2001; Castles, 1982; Korpi and Palme, 1998).

Figure 8: The evolution of unemployment benefits replacement rates



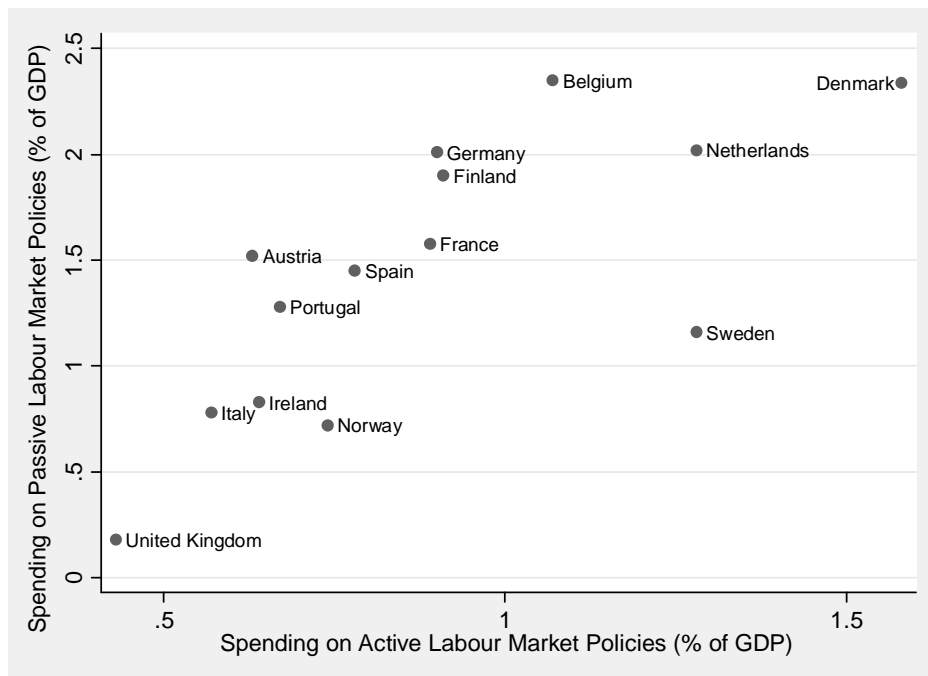
Source: OECD-CEPS database (2005).

Figure 9: The evolution of employment protection legislation of regular workers



Source: OECD Employment database (2007).

Figure 10: Spending on active and passive labour market spending in 2005



Source: OECD Employment outlook (2007).

For instance, the origins of high EPL can also be traced back to the strength of labour (Emmenegger and Marx, 2011: 192; Emmenegger, 2011; Korpi, 2006). Looking at recent changes in unemployment benefit systems, Allan and Scruggs (2004) show that left-wing governments were less likely to retrench unemployment benefit replacement rates. Given the relevance of the strength of labour, one can also observe distinct clusters of countries exhibiting systematically different welfare states.

The welfare state literature has emphasised the distinct clustering of countries into three distinct types of welfare regimes (Esping-Andersen, 1990; 1999). Liberal welfare regimes entail low decommodification and a strong emphasis on targeted and means-tested benefits. Bismarckian welfare regimes are more decommodified but also more stratified because social insurance principles mean different groups of workers have systematically distinct entitlements. Lastly, social democratic welfare regimes have universalistic and strongly decommodifying benefit systems based on citizenship.

Consistent with this literature, the reform paths of labour market policies have also been different across regimes (Kvist, 2003; Palier and Martin, 2007; Palier, 2006). The extent to which recent welfare state reforms have entailed cost containment and retrenchment, recalibration or re-commodification of existing policies, for instance, has been partly regime-dependent (Pierson, 2001): cost containment and re-commodification have been most prevalent in liberal welfare regimes, whereas social democratic and Bismarckian welfare regimes have focused on containing costs and recalibration.

In Esping-Andersen's work (1999: 27), a country with a Bismarckian welfare regime was in the worst of both worlds, achieving neither efficiency nor equity. Similarly, Sapir (2007) argued that the continental European social model is inefficient while the southern European social model is both inefficient and unequal. The specific clustering of countries into Esping-Andersen's welfare regimes has been challenged and amended (Ferrera, 1996; Leibfried, 1992; Castles and Mitchell, 1993; Bonoli, 2007; Arts and Gelissen, 2002; Scruggs and Allan, 2006) but it remains an influential reference point for comparative research.

A second strand of literature has argued that the power resource account underplays the centrality of firms to explain differences between distinct types of capitalism in Europe (Hall and Soskice, 2001). The VoC literature explains policies by considering how they are embedded in broader institutional complementarities. Institutions across several spheres of the economy complement themselves thereby maximising efficiency and solving various coordination problems that firms face.

Generous unemployment benefits and high EPL may be required to protect the investments in specific skills that workers make in CMEs. Also, because workers may lose the wage premium associated with firm specific skills when they lose their job, they will only make such risky investments if they are unlikely to become unemployed and if they receive generous benefits when that happens. By contrast, workers with more general skills in Liberal Market Economies (LMEs) may not require such a high level of social insurance and employment protection (Hall and Soskice, 2001; Estevez-Abe *et al.*, 2001).

The VoC literature also suggests that distinct institutional complementarities in LMEs and CMEs make some changes more likely in some economies than others (Hancké *et al.*, 2007; Hall and Soskice, 2001). Specifically, heightened competitive pressures arising from economic internationalisation will push both CMEs and LMEs to reinforce their pre-existing institutional complementarities: the former will therefore retain generous welfare states and high EPL whereas the latter will have incentives to retrench and deregulate.

For VoC, a number of European countries such as France and Spain, did not fit easily in the initial dichotomy between CMEs and LMEs. Mixed Market Economies (MMEs) were later introduced as a third type of capitalism (Hancké *et al.*, 2007). The economy of MMEs in many respects underperformed those in CMEs and LMEs (Hall and Gingerich, 2004). While CMEs and LMEs can be expected to react to pressures by reinforcing their institutional complementarities, the expectations for MMEs are therefore unclear.

3. Starting point and plan of thesis

3.1. The starting point: labour market dualisation and policies that target outsiders

Both theories do a good job at explaining labour market policies such as passive labour market benefits and EPL of permanent workers that were created when most of the labour force was homogenous. Indeed, despite their diverging emphasis on the causal primacy of labour or firms, both theories implicitly posit that the factors

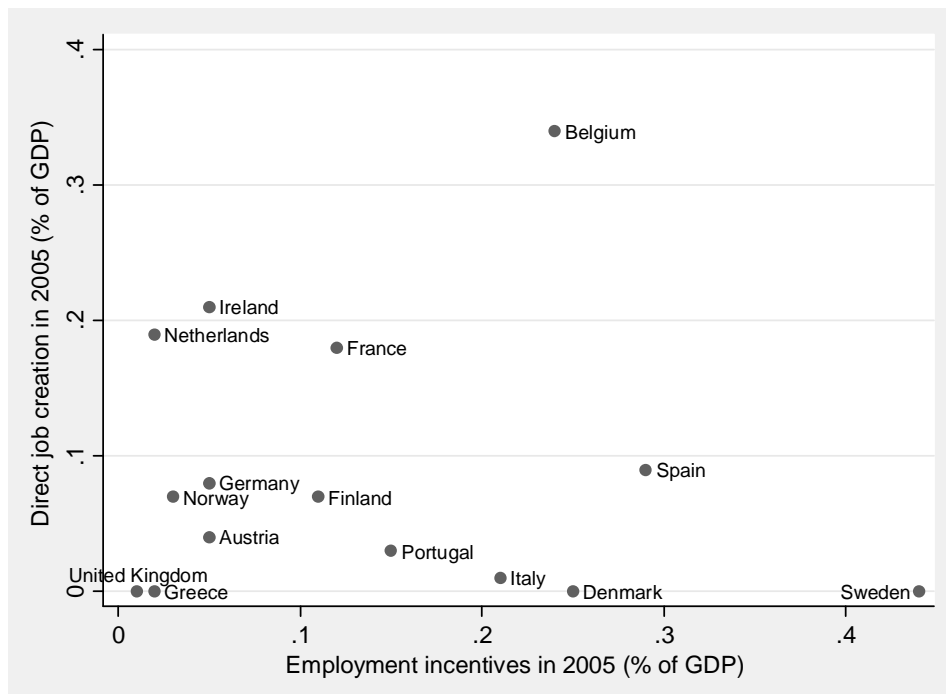
they identify can be systematically associated with a set of policies which are beneficial or detrimental to the whole of labour. In other words, these theories assume that labour is a homogenous actor with common interests and preferences and that welfare state policies and economic coordination are conducive to these interests.

Contradicting the ‘homogenous labour’ assumption, European labour markets have become increasingly dualised. One can distinguish between the process of dualisation, the extent of dualism in policies that target different groups of workers, and the resulting divide between insiders and outsiders (Emmenegger *et al.*, 2012). There is growing evidence that the interests and preferences of labour are becoming increasingly divided (Rueda, 2007; Iversen and Soskice, 2009; Häusermann and Schwander, 2009; Emmenegger, 2009). Mirroring these divisions within labour, welfare state policies and institutions are also becoming more dualist as they entail systematic differences in the entitlements and policies that accrue to insiders and outsiders (Palier and Thelen, 2008; Palier and Thelen, 2010; Eichhorst, 2010; Emmenegger *et al.*, 2012).

As dualisation has increased, the economic and social effects of different labour market policies and institutions on insiders and outsiders have become more differentiated. The political and institutional determinants of labour market policies that target outsiders and insiders are therefore unlikely to be uniform. As a result, theories that were developed to explain labour market policies and outcomes without explicitly taking into account dualisation are hard-pressed to explain novel policy developments targeted towards outsiders.

Two policy domains are noteworthy in this respect: ALMPs targeted at unemployed workers and the EPL of temporary workers. Existing literature suggests that various ALMPs have distinct economic and social effects on insiders and outsiders, and hence should have different political and institutional determinants. As Figure 11 makes clear, countries choose very different types of ALMPs and it is not the case that those countries which spend more on one programme necessarily spend more on other ALMP schemes. The relation between left-wing control of the government and aggregate spending on all ALMPs does not appear straightforward (see Figure 12). As I will argue in the next section, the existing literature using aggregate spending on ALMPs as their dependent variable has therefore, not surprisingly, yielded contradictory empirical findings.

Figure 11: Disaggregating spending on ALMPs in Western Europe



Source: OECD Employment outlook (2007).

Figure 11 (continued): Disaggregating spending on ALMPs in Western Europe



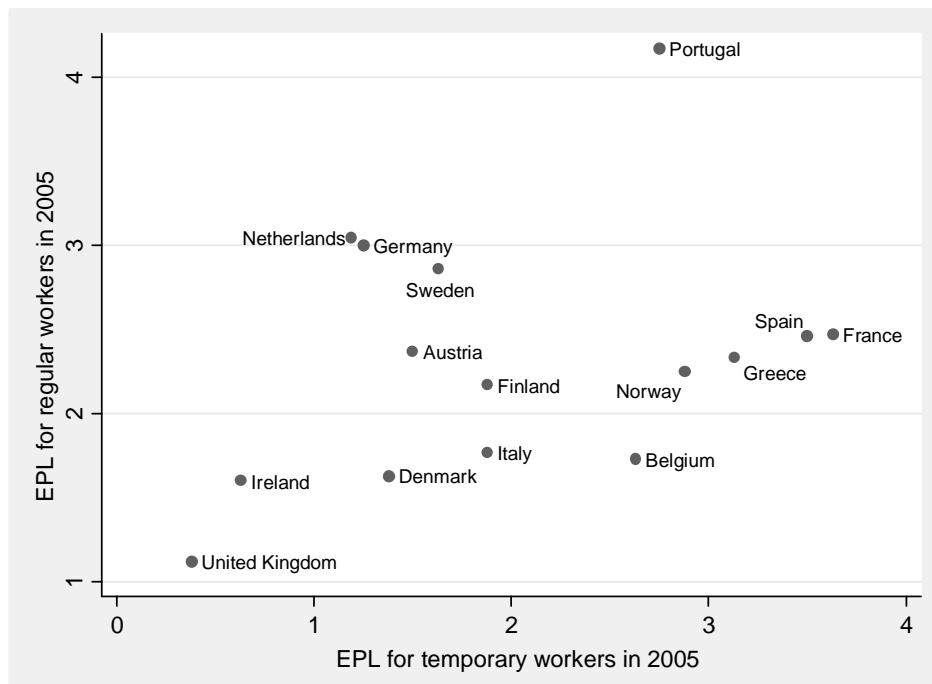
Source: OECD Employment outlook (2007).

Figure 12: Spending on ALMPs in 2005 and control of the cabinet by the left (1970-2007)



Source: OECD Employment outlook for ALMPs and Armingeon et al. (2011) for Left data.

Figure 13: EPL for regular and temporary workers in Western Europe



Source: OECD Employment database (2007).

With respect to EPL, the expansion of temporary work means it becomes increasingly problematic to aggregate EPL of regular and temporary workers into an overall EPL index. Recent research has looked at the determinants of overall EPL (Bonoli, 2003; Emmenegger, 2011; Esping-Andersen, 1996; Siegel, 2007). However, comparatively fewer studies to date have looked systematically at the determinants of the evolution of EPL of temporary workers. This is problematic because the pattern of EPL for regular and temporary workers respectively, is very diverse across European countries (see Figure 13) and hence one cannot expect the EPL of temporary and regular workers to be determined by similar political or institutional drivers.

A similar problem occurs for labour market outcomes such as inequality, where different types of inequality can no longer be assumed to be determined by

similar political economy processes. The relative inability of mainstream economics' explanations to account for the existing diversity of wage inequality has prompted new research in comparative political economy (Rueda and Pontusson, 2000; Rueda, 2008). However, whereas inequality between the top and bottom deciles of income distribution conforms fairly well to the expectation that social democratic welfare regimes and CMEs have lower inequality (see Figure 14); inequality between median and bottom income deciles does not (see Figure 15).

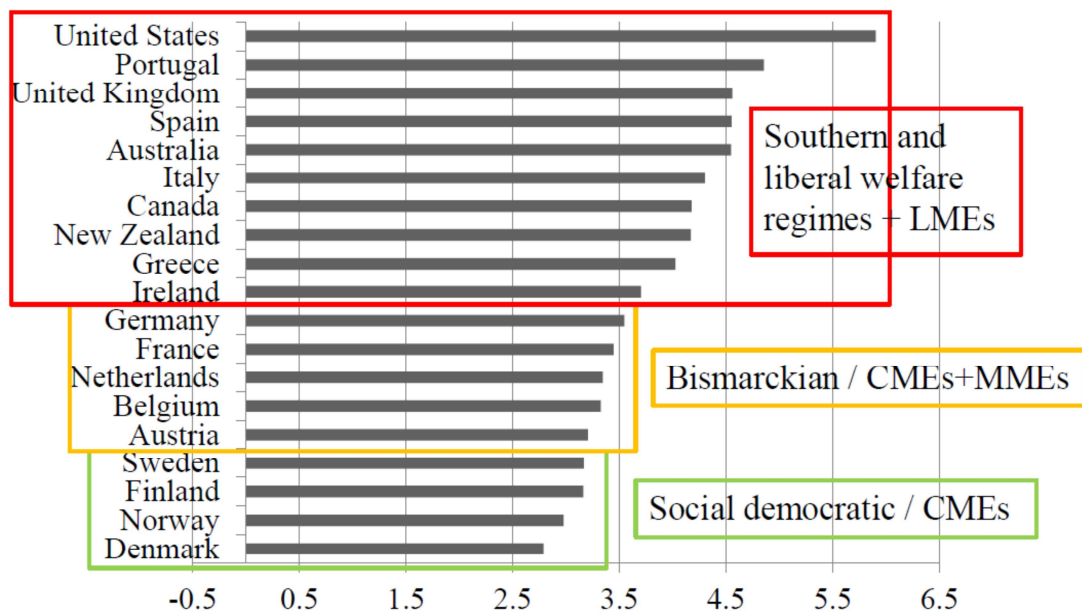
In sum, I argue that we need to look at specific groups of outsiders separately, given the heterogeneity of this category of workers. The conditions and interests of unemployed, temporary and low income workers cannot be assumed *a priori* to be the same. Each outsider group also has a different degree of economic and political salience. Therefore the policies that target different types of outsiders are not necessarily driven by the same political and institutional determinants. As a result, it is necessary to look at different outsider groups separately and to develop different explanations of the conditions and policies that target each outsider group.

Following Rueda (2007), the underlying conception of outsiders adopted in this thesis is categorical in the sense that where an individual is seen as an outsider, or insider depending on their contractual position in the labour market: workers in permanent contracts are insiders whereas those in temporary contracts or unemployment are outsiders. By contrast, some authors conceptualise outsiders along a continuum where the degree of 'outsiderness' is determined by the occupational risk of unemployment that a particular individual faces (e.g. Häusermann and Schwander,

2012).¹¹ Workers employed in occupations with high unemployment are therefore seen as outsiders *regardless of their contractual position*. This is problematic because it collapses permanent and temporary workers within a given occupation as being influenced by the level of unemployment in their occupation to the same extent. Such a premise is fundamentally at odds with the starting point of the insider-outsider theory that links insider's job security to the size and welfare of the outsider group.

The rest of this section outlines in more detail the question and argument of the three papers that examine the determinants of ALMPs, EPL for temporary work and wage inequality between the median and the bottom income deciles, respectively.

Figure 14: Inequality between top and bottom income deciles in 2000



Source: OECD Employment and Labour Market Statistics (2005).

¹¹ Outside of the dualisation literature, other authors also posit that individual preferences for policies are crucially shaped by the unemployment rate in their occupation (e.g. Cusack, *et al.*, 2006; Rehm, 2011).

Figure 15: Inequality between median and bottom income deciles in 2005



Source: OECD Employment and Labour Market Statistics (2005).

3.2. Paper 1: The determinants of active labour market policies

The first paper investigates the political and institutional determinants of ALMPs. There are currently contradictory theoretical expectations and empirical findings concerning the effect of partisanship on ALMPs. Following the Power Resource approach, some studies emphasise that the strength of the left is a key determinant of cross-national differences in spending on ALMPs (Huo *et al.*, 2008; Swank, 2007; Swank and Martin, 2001; Boix, 1998; Huo, 2009).

By contrast, Rueda (2005; 2006; 2007) has forcefully argued that insiders and outsiders have different preferences for labour market policies because they face systematically distinct risks of becoming unemployed. Because insiders face a low

probability of becoming unemployed, they will not want ALMPs that need to be financed out of taxation and may push the unemployed back into work with potentially adverse effects on wages and work conditions. As a result, “insiders care about their own employment protection much more than about labour market policies aimed at promoting the interests of outsiders” (Rueda, 2007: 212). In turn, social democratic parties should promote employment protection much more than ALMPs because insiders constitute their core constituency.

However, both the power resource and the insider-outsider approaches share the implicit assumption that ALMPs entail programmes that have similar effects on insiders as well as outsiders. By contrast, welfare state and economics literature has shown that ALMPs incorporate programmes with different aims and effects. Some ALMPs aim to upgrade the skills of the unemployed, while others raise incentives for the unemployed to take up jobs and yet others directly create jobs (Bonoli, 2010). The varying degree of emphasis on different types of ALMPs across Europe documented earlier in Figure 11 remains to be fully explained.

The first paper of this thesis asks how partisanship affects different ALMPs across welfare regimes in Europe. I argue that one should distinguish between distinct ALMPs because they have various functions and effects on insiders and outsiders. Employment incentives and rehabilitation programmes incentivise the unemployed to accept jobs. Direct job creation reduces the supply of labour by creating non-commercial jobs. Training schemes raise the human capital of the unemployed. Party

preferences for ALMPs also crucially depend on the welfare regime in which political parties are located.

Using regression analysis this paper confirms that the positions of political parties towards these three types of ALMPs are different. Specifically, the findings are threefold. First, in Scandinavia left-wing parties support neither employment incentives nor direct job creation schemes. Second, in continental and Liberal welfare regimes left-wing parties also oppose employment incentives and rehabilitation programmes but they support direct job creation. Third, there is no impact of partisanship on training which is exclusively driven by the type of welfare regime in which the particular government is located.

By disaggregating ALMPs, the paper therefore reconciles the contradicting expectations and findings of previous literature. Moreover, there are three broad implications of this paper. First, political parties are particularly important to understand the labour market policy mix. Second, different political parties continue to favour different policies. However, 'more' is not necessarily better and there is not a unified position of the left on different types of labour market policies. Third, welfare regimes affect the preference of similar political parties towards labour market policies.

3.3. Paper 2: The determinants of temporary work (de)regulation

The second paper investigates the political and institutional determinants of temporary work (de)regulation. The existing literature contends that, faced with rigid

labour markets and unemployment problems, governments choose to reduce the EPL of temporary workers. Labour market flexibility is thereby increased while insiders in permanent employment remain unaffected. Most countries with high EPL for permanent employees have indeed lowered regulations of temporary work.

However, France went systematically in the opposite direction. Despite having both high EPL and high unemployment, by 2007 French temporary work regulations had become the highest in Western Europe. To solve this puzzle, I argue that the French left has attempted to tackle the high replaceability of permanent workers. This higher replaceability is the result of a greater ability of French employers to replace permanent staff by temporary workers.

Employers have an incentive to replace permanent workers by temporary workers in rigid labour markets but their ability to do so is contingent on two factors, which are most present in France. First, temporary workers must be able to do the job of a permanent worker which in turn depends on skill specificity and the temporary workers' level of education. Second, where wage coordination is high, the labour representatives have more control over the use of temporary employees at company level which makes it harder for companies to replace permanent by temporary workers.

Using large N regression analysis I show that workers with more general skills in countries where wage coordination is low feel the most replaceable. As a consequence, reforms that reduce temporary work regulations are most likely where coordination is high. While partisanship has no consistent overall effect, the left is

more likely to tighten EPL of temporary workers in low coordination settings but more likely to deregulate it in high coordination settings. In-depth analysis of EPL reforms of temporary work regulations in France reveals that the left has indeed tightened regulations to compensate a particularly high degree of replaceability.

3.4. Paper 3: The effects of labour market policies on inequality

The third paper focuses on distributional labour market outcomes. One of the most profound changes of the past three decades in the developed world is the significant rise in inequality after its relative decline in the post-war years (Kenworthy and Pontusson, 2005). These trends in inequality have motivated important new research in economics (Atkinson and Piketty, 2007; Leigh, 2007). So far, standard economic explanations fail to fully account for existing inequality and the cross-national variation in wage inequality therefore requires an institutional and political explanation (Gottschalk and Smeeding, 1997).

However, wage inequality between median and bottom income deciles workers still constitute an under-analysed phenomenon. In addition, inequality between these workers represents a puzzle for existing political economy theories. Indeed, the latest data on wage inequality reveals that Germany, the archetype of the CME, now has higher inequality than the UK; the classic case of an LME. Similarly, inequality is now higher in Denmark which is characterised by a social democratic welfare regime than in France or Belgium that have Bismarckian welfare regimes.

I argue that to solve this puzzle one must uncover the increasingly adverse effects of labour market policy developments analysed in the first and second paper of this thesis as well as economic coordination. Specifically, certain ALMPs such as employment incentives increasingly re Commodify labour and therefore put downward pressure on the wages of low income workers. The deregulation of temporary work and the subsequent expansion of this sector have also entailed adverse effects on the wage distribution, even among full-time workers.

Lastly, economic coordination has become increasingly non-inclusive, where core workers remain covered whereas low income workers are left unprotected. As a result, economic coordination is only associated with lower inequality where union density is high, such as Sweden, or where there are countervailing minimum wage regulations, such as in France. This argument is tested using large N regression analysis on a panel of fifteen Western European countries.

Paper 1

I: MIXING APPLES WITH ORANGES? PARTISANSHIP AND ACTIVE LABOUR MARKET POLICIES IN EUROPE

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Abstract

There are competing theoretical expectations and conflicting empirical results concerning the impact of partisanship on spending on Active Labour Market Policies (ALMPs). This paper argues that one should distinguish between different ALMPs. Employment incentives and rehabilitation programmes incentivize the unemployed to accept jobs. Direct job creation reduces the supply of labour by creating non-commercial jobs. Training schemes raise the human capital of the unemployed. Using regression analysis this paper shows that the positions of political parties towards these three types of ALMPs are different. Party preferences also depend on the welfare regime in which parties are located. In Scandinavia, left-wing parties support neither employment incentives nor direct job creation schemes. In continental and Liberal welfare regimes, left-wing parties oppose employment incentives and rehabilitation programmes to a lesser extent and they support direct job creation. There is no statistically significant impact of partisanship on training. These results reconcile the previously contradictory findings concerning the impact of left-wing control of the government on ALMPs.

Introduction

What drives the evolution of welfare states has been a central question in comparative political economy for more than three decades (Wilensky, 1975; Korpi, 1983). Attention has increasingly shifted to explaining more specific welfare state policies. This is best exemplified by Active Labour Market Policies¹² (ALMPs) which aim to reduce unemployment and raise labour market participation. ALMPs include spending on public employment services, employment incentives, training, and direct job creation. These programmes have been promoted by both the OECD in its 1994 Jobs Study and the EU in its 1997 European Employment Strategy.

In the early 1990s, Janoski and Hicks declared that “despite two decades of use, ALMP is still a new term ... and few analyses exist on this policy” (1994: 62). Since then, three streams of literature have studied ALMPs from different angles. First, the welfare state literature analyses how these programmes work. This literature also assesses the extent to which the introduction of these policies changed the welfare state (Clasen and Clegg, 2006; Daguerre, 2007). Second, the economics literature studies the impact of ALMPs on unemployment and employment levels across countries (Nickell and Layard, 1999; Estevão, 2003). Third, comparative political economy investigates the determinants of ALMPs (Boix, 1998; Rueda, 2007; Bonoli, 2008; Huo *et al.*, 2008; Armingeon, 2007).

However, important debates remain concerning the role and effect of political parties on ALMPs. Two seminal studies on the impact of partisanship on ALMPs

¹² Note that I use the word ‘programmes’ and ‘policies’ interchangeably.

reach opposite conclusions and generate contradictory theoretical expectations. On the one hand, Boix (1998) argues that social democratic parties promote ALMPs more than conservative parties. On the other hand, Rueda (2007) argues that social democratic parties will at best be indifferent towards ALMPs and at worst be against them. Both authors find strong empirical support for their theories. As a result, there are competing theoretical expectations concerning the effect of partisanship on ALMPs. This paper investigates the impact of partisanship on ALMPs.

The next section reviews the existing literature in greater depth. I argue that contradictory theoretical expectations are the result of two fundamental issues. As shown in the second section, the first issue is an inappropriate aggregation of ALMPs into a single conceptual category whereas different ALMPs are promoted differently by distinct political parties.

The second issue concerns the omission of welfare regimes which, as the third section shows, are likely to influence the impact of partisanship on different ALMPs. The fourth section describes the data and presents the empirical model and estimation strategy. In the fifth section, the results are discussed with a focus on how the control of governments by social democratic parties affects spending on three groups of ALMPs in different welfare regimes: employment incentives and rehabilitation, direct job creation and training schemes. The last section concludes and draws some implications for further research.

1. The impact of partisanship

Partisanship has been a particularly important focus of the comparative political economy literature examining government policies and economic outcomes. Previous studies have looked at the impact of partisanship on economic performance (Alvarez *et al.*, 1991; Hibbs, 1977), inequality (Pontusson *et al.*, 2002; Bradley *et al.*, 2003), welfare state reform and generosity (Allan and Scruggs, 2004), and public spending more generally (Cusack, 1997).

The power resource theory posits that strong labour movements push for greater welfare state expansion. One way they do so is in the “electoral arena in which politicians, answerable to voters, make the key decisions” (Pierson, 2001: 7). There is then a direct impact of political parties on public expenditure through new legislation and budgetary decisions (Janoski and Hicks, 1994). Social democratic parties are key initiators of social policies (Korpi, 2006). This implies that the control of governments by the left results in more spending on welfare state policies (Korpi, 1983).

The earliest quantitative analysis of ALMPs was carried out by Janoski (1990). He argues that left-wing parties undertake ALMPs to address economic problems “important to the working class” such as unemployment (*ibid*: 263). Time-series analysis of West Germany provides support for his hypothesis (*ibid*: 236). In a similar vein, Huo *et al* (2008) as well as Iversen and Stephens (2008) find social democratic control of government an important determinant of ALMPs. This is because ALMPs increase employment which is conducive to labour’s interests. These arguments are consistent with Esping-Andersen’s (1990: 168) work on welfare regimes. He shows

that “active labour market policy...became...the instrument through which an accommodation to full employment was pursued.”

Other authors have stressed the possibility that left-wing parties support ALMPs only under certain conditions. For instance, Bonoli (2008) has argued that left-wing parties will only support ALMPs in open economies. In relatively closed economies, left parties favour decommodification and high employment protection for their core constituents. However, in open economies, this would hinder competitiveness. Thus, ALMPs represent a way to achieve the twin objective of promoting the interests of workers and retaining competitiveness.

Bonoli's (2008) study echoes that of Boix (1998). He showed that left-wing parties will support ALMPs because this allows them to achieve the objectives of equality and economic growth. This is because growth mostly depends on the supply side of the economy. By raising the physical and human capital of the economy, supply side policies increase the productivity of workers. Higher human capital makes it possible for the unemployed to command wages that are higher than the social wage. These higher wages make it worthwhile for them to enter employment. Thus, this strategy reduces unemployment. It also increases equality since the unemployed now earn a wage which is superior to the social wage.

On the other hand, Rueda's seminal work (2007) shows that labour is divided between insiders and outsiders. Insiders are workers in full-time permanent employment while outsiders encompass the unemployed and some workers in temporary or part-time contracts. Insiders represent the core constituents of social

democratic parties. If they are well insulated from the risk of unemployment, they will not support ALMPs. Outsiders are relatively unimportant for both trade unions and political parties. Social democrats will therefore at best leave ALMPs unchanged and at worst reduce spending on them.

There are two cases where this prediction should be qualified. If insiders have very low employment protection, their exposure to the risk of unemployment increases. In such a case, their preferences for ALMPs may change as they are more likely to benefit from these policies by becoming unemployed. Second, if many outsiders are members of unions, the latter may support ALMPs more than would otherwise be the case. Rueda finds conclusive evidence for his insider-outsider theory of ALMPs. In sum, there are contradicting theoretical expectations and empirical evidence concerning the impact of partisanship on ALMPs spending.¹³

2. Disaggregating Active Labour Market Policies (ALMPs)

A significant part of political economy literature reviewed earlier assumes it is appropriate to subsume these different programmes under a common heading. For instance, Huo (2009: 103) argues that “ALMPs do share the common characteristic of making an offer to the unemployed”. This section challenges the assumption that ALMPs can be considered as a unified category. This is in line with literature that has

¹³ Note that there are contradictory findings elsewhere in the literature. For an exhaustive summary Table of existing findings concerning the determinants of ALMPs, see Table A1.5 in the appendix.

emphasised that there are different types of activation (Barbier, 2001; Barbier and Ludwig-Mayerhofer, 2004).

More recently, Bonoli (2010) also argues in favour of differentiating between types of ALMPs. This qualitative evidence thus calls for an analysis of what ALMPs include and which political parties support different ALMPs. Note that for reasons of space, the discussion of the official rationale for introducing the various reforms that underpin spending on ALMPs in each country is necessarily limited and where it occurs it is mostly for illustrative purposes (For more on this see Dingledey, 2007; King, 1995; Bonoli, 2010).

Following the OECD classification one can distinguish between seven types of programmes that are counted as spending on ALMPs. In this section, I first argue that three out of these seven programmes are not appropriate to test for the impact of partisanship on ALMPs: start-up incentives, public employment services, and job rotation (section 2.1). Concerning the remaining programmes counted as ALMPs, I then show that one should distinguish between three types of programmes (section 2.2). Direct job creation schemes create jobs for the unemployed. Two programmes, employment incentives and rehabilitation, incentivise the unemployed to take up jobs through various measures (section 2.3). Training schemes are a last programme in ALMPs which attempt to increase the productivity of the unemployed (section 2.4). I conclude with some implications for how political parties support different ALMPs in distinct ways.

2.1. Public employment services, job rotation schemes and start-up incentives

The first programme is Public Employment Services and administration (PES) which includes placement and related services and the administration of benefits. Spending on PES includes the cost of employing people to administer benefits and organise the placement services. It is entirely unclear whether this benefits the unemployed or whether PES is used to monitor benefit recipients more closely. For instance, the 2001 plan to help people return to employment made it compulsory for the unemployed in France to “take an ‘acceptable’ job” (Barbier, 2009: 178). The impact of this programme on unemployment and employment is also contested. Estevão (2003: 15) for instance finds that spending on PES is associated with lower employment rates.

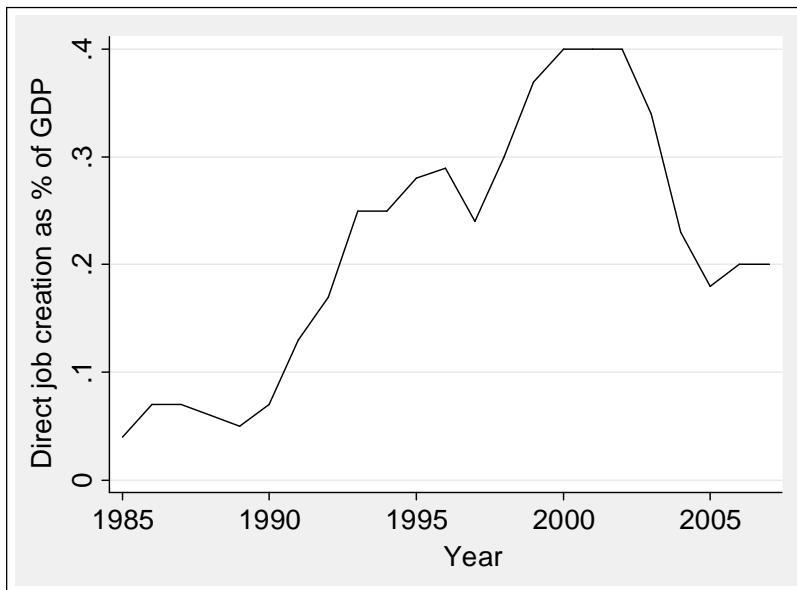
Spending on job rotation and job sharing is a second programme that is not an appropriate case to test the impact of partisanship on ALMPs. This programme was, for instance, used by Germany, which increased spending on *Kurzarbeit* schemes during the recent economic crisis. This is a way to prevent redundancies rather than to reduce unemployment or increase employment rates. Lastly, expenditure on start-up incentives entails helping the unemployed starting their own business and becoming self-employed. The promotion of self-employment has little to do with the interests of labour or with worker-employer relationships. Note that spending on job rotation and start-up incentives represent a very small share of aggregate ALMPs.

2.2. Direct job creation

‘Direct job creation’ is a fourth type of ALMP. This sort of programme has a much longer history than ALMPs as an integrated conceptual category. Germany was implementing “national job creation policies” as early as the 1920s (Janoski, 1990: 63). In the 1970s, Sweden expanded public sector employment and used ALMPs to provide an occupation for unemployed workers. This included “temporary jobs arranged mostly in the public sector” (Bonoli, 2010: 18). These job creation schemes were therefore classic interventions on the demand side of the labour market. In 1979, the Danish left created a Job Offer Scheme guaranteeing a job for seven months to the long-term unemployed (Huo, 2009: 105). The Dutch Partij van de Arbeid’s left party also offered government subsidised jobs in the public sector. For instance, the so-called ‘Melkert job schemes’ directly created jobs (*ibid*: 124, 125).

In France, the left-wing government introduced ‘Collective Utility Work’ in 1984 (Lødemel and Trickey, 2000). Similarly, it was the socialists who, in 1997 introduced the *Nouveaux Services Emplois Jeunes* providing 18-30 year olds with 5 years’ full-time employment (Daguerre, 2007: 116). The impact of this initiative on spending on direct job creation in France, where the Socialists were in power from 1988 to 1992 and 1997 to 2002, can be seen in Figure 16. In France, the underlying public rationale of these schemes was both to create jobs in the context of large unemployment and to address “unmet needs in the public sector” (Lødemel and Trickey, 2000: 60). Governments that initiated these schemes did so with the official objective to deal with mass unemployment through demand side programmes to “keep jobless people occupied” (Bonoli, 2010).

Figure 16: Spending on direct job creation as % of GDP in France



Thus, direct job creation involves the use of public funds to directly create employment. Most often these jobs are created in the public or non-commercial sector. Therefore, this measure directly reduces unemployment. There is evidence that direct job creation was effective in increasing employment in the 1990s (Estevão, 2003: 15). By reducing unemployment while not putting pressure on workers in private sector jobs, direct job creation may therefore be in workers' best interest. As a result, this measure is consistent with the interest of both the employed and unemployed workers.

Spending on direct job creation is associated with lower inequality which represents an important policy objective of social democrats. Using survey data to analyse the preferences of left-wing constituents allows me to derive some micro-foundations. Specifically, I find evidence that left-wing respondents are more favourable towards job creation than respondents that are not left leaning. The detailed analyses of the determinants of inequality and preferences for job creation (not

included here for reasons of space) can be found in the appendix A1.2. I therefore argue that social democratic parties can be expected to support direct job creation both because this allows them to reduce unemployment as well as inequality, and because this is consistent with the preferences of their core constituents.

2.3. Employment incentives and rehabilitation

Spending on ‘employment incentives’ constitutes the fifth type of ALMP. This includes both recruitment incentives and employment maintenance incentives. This is part of a broader agenda that reinforces incentives for the unemployed to take up jobs. Economists (Snower, 1997; Phelps, 1997) have stressed the role of (targeted) employment subsidies in reducing unemployment and making low wage workers better off.

However, this type of ALMP may also put downward pressure on wages in private sector employment. This occurs through two mechanisms. First, by subsidising low wage work in the private sector, this makes it more appealing for employers to offer low wage jobs. Such a substitution effect is consistent with some of the empirical literature (Calmfors *et al.*, 2001). Second, this programme rewards the acceptance of any jobs by the unemployed. This makes it more likely that the unemployed will take up jobs that they would otherwise not accept. Regression analysis of the effect of employment incentives on inequality does suggest it is associated with higher inequality (for reasons of space, the results are discussed in full in appendix A1.2).

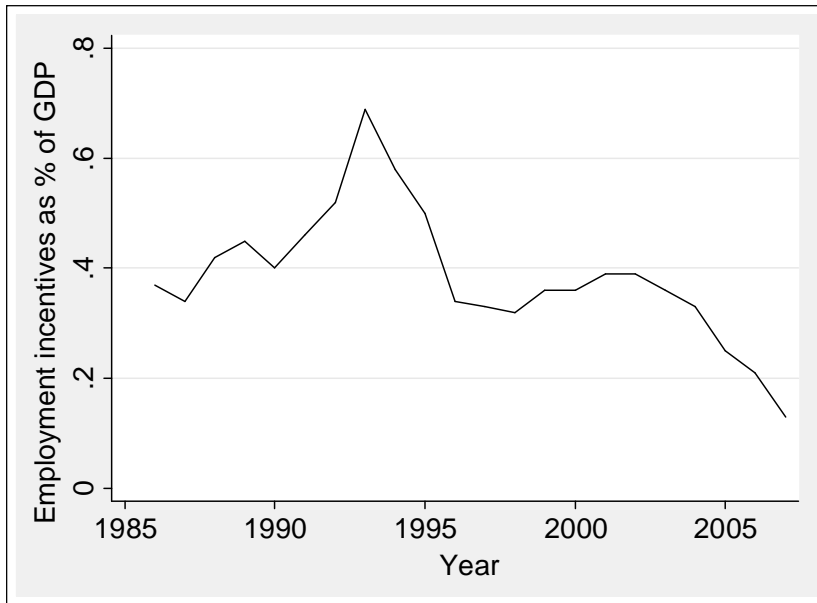
Thus, employment incentives may promote low wage work and make employers substitute non-subsidised labour by subsidised labour. This means that ALMPs may become “financial subsidies that firms exploit for hiring cheap labour” (Huo, 2009: 111; Martin and Swank, 2004). This is not likely to be popular with core social democratic voters. This concern of a potentially detrimental effect of employment incentives on the type of employment has been voiced by French trade unions (Naton, 2009). Similarly in Sweden, the social democratic position was that “the state should not subsidise or encourage low wage employment” (Huo, 2009: 116).

Liberals as well as Conservatives have supported the reinforcement of incentives (Bonoli, 2010). This type of programme promotes market mechanisms and reduces unemployment by raising incentives, which is consistent with Liberal and Conservative ideology. Survey analysis of individual preferences for policies that incentivise unemployed to accept jobs reveals that left-wing constituents are less favourable to these schemes than non-left respondents. For reasons of space, the analyses of the determinants of inequality and preferences for job creation can be found in the appendix A1.2.

The historical evidence also supports the contention that conservative parties have supported this policy. For instance, in 1990, the Danish centre right government introduced a scheme that promoted the young unemployed to participate in activation (Huo, 2009: 104). The impact of this initiative on spending on employment incentives in Denmark, where a liberal conservative coalition ruled from 1982 to 1993 and after 2001, can be seen in Figure 17 above. Similarly, the centre right government in the

Netherlands introduced a programme, the *Loonsuppletie*, which granted the unemployed a temporary wage supplement. This was only awarded where the wage of the new job was inferior to that of the previous job (*ibid*: 123).

Figure 17: Spending on Employment incentives as % of GDP in Denmark



The programme ‘supported employment and rehabilitation’ promotes mobility on the part of the unemployed to get into employment. This is done, for instance, by providing mobility grants to unemployed workers who accept to move to another region to seize an employment opportunity. It also consists of “subsidies for the productive employment of persons with ... a long-term ... reduced capacity to work” (OECD, 2010). This programme makes it more likely that a job seeker in a given region would move to another region.

Thus, supported employment and rehabilitation has a similar effect to employment incentives. Most often the stated aim of these programmes is to promote

re-entry into the labour market (Bonoli, 2010). Both measures incentivise the unemployed to take jobs, thereby potentially putting downward pressure on wages. This is in line with recent work by Rueda (2007: 74) who argues that ALMPs “promote entry into the labour market of outsiders who will underbid insiders’ wage demands”. Note however that in contrast to employment incentives and rehabilitation, direct job creation does not lead to outsiders underbidding insiders’ wages, as revealed by their opposite effects on inequality (see appendix A1.2).

2.4. Training schemes

Training schemes in ALMPs aim to raise human capital. This was the main reason for the promotion of ALMPs by Swedish social democrats in the early 1950s. The *Rehn Meidner* model involved a solidaristic wage system which priced out low productivity industries. The resulting unemployed could then be retrained and incorporated into high productivity industries (Huo, 2009). Thus, contrary to measures that incentivise the unemployed to take up jobs, training schemes aim to enable the unemployed to re-skill, thereby increasing their chances of successfully attaining their preferred employment position.

It is precisely because training ALMPs raise human capital that Boix (1998) argues that the left would support these programmes. By raising the productivity of the unemployed, this allows social democrats to raise both economic growth and equality. On the contrary, the conservatives may see publically funded training as unnecessary. For instance, when the centre right party took power in Sweden in 1991, they reduced

spending on “skill and competence development” in ALMPs (Huo, 2009: 113), and it was a left-wing government that introduced the ‘vocational training programme’ in Norway (*ibid*: 120). Consistent with this expectation, I do find evidence that left-wing respondents are more favourable to providing training to the unemployed and that training schemes are associated with lower inequality (for reasons of space, the full analysis can be found in the appendix A1.2).

However, some historical evidence partly contests Boix’s argument. In 1963, the Gaullist party in France attempted to introduce training schemes in the unemployment benefit system. This was partly opposed by unions who resented additional state involvement in unemployment insurance (Clegg, 2005; Bonoli, 2010). The promotion of vocational training to address unemployment also occurred around the same time in Germany. This took the form of the 1969 ‘Employment Promotion Act’ which was proposed by the coalition composed of the Christian Democratic Union and Social Democratic Party (Bonoli, 2010).

As Bonoli (2010: 17) concludes, training was supported by very different political parties: “Swedish Social democrats, the French Gaullists, Italian Christian democrats and a coalition government in Germany”. In addition, training may not be relevant for unemployment or employment levels. This claim is consistent with Estevao’s (2003: 15) findings that “training programmes for unemployed ... adults seemed irrelevant” for employment.

One possible explanation for this mixed historical evidence for the effect of partisanship on training schemes, as I discuss in more detail in section 3, is that the

type of capitalism has implications for business preferences, which might in turn be taken up by conservative parties. In addition, if training has some important efficiency implication for production, both left and right parties might be expected to spend more on training.

2.5. Partisanship and different ALMPs

This section shows that there are important differences between ALMPs, and I have identified three distinct types: employment incentives and rehabilitation, direct job creation and training schemes. From this discussion, my argument is that social democratic parties, all other things being equal, support direct job creation but do not support employment incentives and rehabilitation. This is because direct job creation benefits the unemployed without putting pressure on employed workers, whereas employment incentives and rehabilitation may have adverse consequences for employed workers.

Historically, both social democratic and conservative parties have supported training schemes. Training also matters to employers and hence these schemes are more likely to be driven by the coordination regime than partisanship. I therefore derive the following hypothesis and three observable implications:

H1: The control of the government by social democratic parties (a) is positively related to spending on direct job creation; but (b) negatively related to spending on employment incentives and rehabilitation; and (c) There are mixed expectations concerning the effect of partisanship on training schemes.

3. ALMPs in different welfare regimes

This section shows that the type of welfare regime and variety of capitalism in which ALMPs are located can be expected to affect the amount that is spent on different ALMPs. The welfare state literature has shown that countries cluster in three distinct welfare regimes (Esping-Andersen, 1990). The possibility that ALMPs may cluster in different regimes is a well-supported empirical and theoretical phenomenon (Dropping *et al.*, 1999; Barbier and Ludwig-Mayerhofer, 2004).

3. 1. The potential impact of welfare regimes and varieties of capitalism

Welfare regimes may affect the preferences of political parties for different ALMPs. There are three sets of reasons why welfare regimes affect political parties' choice of labour market policies. First, there are enduring historical differences in the sorts of problems different regimes have faced. Long-term unemployment was traditionally much higher in Continental Europe than in the Nordic cluster (Esping-Andersen, 1990: 152). Norway and Sweden were among the few countries to achieve unemployment rates of around 2 to 3% during the post-war era (*ibid*: 163). More generally, Scandinavian countries have much lower poverty and inequality rates than other European countries (Häusermann and Palier, 2008).

The second reason is that the ability to undertake policies may also be regime-dependent. Political parties also choose policies in the context of existing policy tools which may differ significantly in different regimes. Scandinavian social democratic parties can expand public sector employment more than on the continent. Their tax

revenues are larger which allows them to spend much more on all welfare state policies. Similarly, the introduction of ALMPs in the 1960s in Scandinavia was made easier by the expansion of the welfare state at that time. Today, the long history of ALMPs in Sweden makes them an easy policy tool to expand. Later retrenchment may be prevented by the popular support these programmes have created. This is what Armingeon (2007: 913) calls the “regime specific predisposition of expanding ALMP”. The logic of the welfare state becomes partly independent of “temporal political power distribution” (*ibid*: 914).

Third, there are different coalitions and ideologies behind left-wing parties in different welfare regimes. For instance, the Scandinavian left drew its strength from a coalition between labour and the peasant movement. Subsidies for farmers were granted in exchange for a “full employment welfare state” (Esping-Andersen, 1990: 30). The labour movement was therefore much more encompassing in Scandinavia than in Continental Europe. The labour movement may also be more divided because of religious cleavages, as in the Netherlands, or between different left-wing parties, as in France (Clegg *et al.*, 2010). This could imply that left-wing parties may promote different types of ALMPs in continental European countries than in Scandinavia.

The main contender to the Power Resource approach is the Varieties of Capitalism literature (Hall and Soskice, 2001), which underscores the importance of the type of capitalism for the sort of social policy and social protection that emerges (Estevez-Abe *et al.*, 2001). Recall that the previous section suggested there were no clear partisan drivers of training. This does not imply that training is irrelevant in other

respects. Given the importance of skills for the industry, spending on these types of ALMPs is likely to be driven more by the type of capitalism than by partisanship (Hall and Soskice, 2001; Estevez-Abe *et al.*, 2001). If employers need workers to acquire specific skills, political parties may support training schemes for the unemployed.

For instance, Coordinated Market Economies (CMEs) have “high levels of vocational educational and ... industry specific and firm specific skills” (Iversen and Stephens, 2008: 31). This is consistent with historical evidence that most political parties in CMEs supported training measures for the unemployed. There is also evidence that employers in Sweden had a strong interest in the development of training schemes (Swenson, 2002). Similarly, Danish employers were heavily involved in the extension of training schemes (Martin and Thelen, 2007: 24). Indeed, the drastic expansion of training programmes in the post-world war II period was at least partly driven by a need to address important skills shortages (Bonoli, 2010).

In line with this theory, Continental and Scandinavian welfare regimes may have fewer different preferences or needs for training because both these regimes have broadly similar coordination structures compared to Liberal Market Economies (LMEs) such as the UK. This logic is only convincing in the case of CMEs, where employers may push conservative parties to also spend more on training, which might be important for their production strategies. In LMEs, partisan differences could, in principle, still be expected. However, running a survey analysis of individual preferences for providing training to the unemployed in different regimes suggests that

there is no statistically significant difference between left and right wing respondents in European liberal market economies (see appendix A1.2).

As a result, we should not expect partisan differences in LMEs because left-wing constituents do not have stronger preferences for training schemes than right-wing constituents. We should not find partisan differences in CMEs because conservative parties may want to support training schemes, despite their constituents having weaker preferences for this program, to meet the need of companies. Whether constituents' preferences or the type of capitalism have stronger explanatory power in explaining expenditures on training for the unemployed is ultimately an empirical issue.

3. 2. Mapping ALMPs in different welfare regimes

Ferrera (1996) distinguishes between four types of welfare regimes: Scandinavian, Continental, Liberal, and Southern. For simplicity, liberal and southern regimes can be put together under the label 'minimalist labour market policy' welfare regimes. Their welfare regimes are smaller and less decommodifying than in the rest of the Continent. Thus, the Scandinavian welfare regime comprises of Sweden, Denmark and Finland. The Continental cluster includes France, Germany, Austria, Belgium, and the Netherlands. The minimalist category includes the UK, Ireland, Spain, Portugal, Greece and Italy.

Social democratic parties in Scandinavia are stronger than in other regimes. We should therefore expect the difference between spending on employment incentives and rehabilitation under a left-wing and under a right-wing government to be more significant in Scandinavia. In addition, if left-wing parties in Continental Europe are less inclusive, they may care less about the adverse effects of employment incentives and rehabilitation. Workers in precarious employment may also be less important to social democrats in Continental Europe than in Scandinavia.

The ability to expand public sector employment in Scandinavia is higher than in the other two regimes. If social democrats are able to expand standard permanent public employment, they may not promote direct job creation. This is because direct job creation schemes are more temporary and precarious than standard public sector employment. The more inclusive nature of the labour movement in Scandinavia means that social democrats may want to offer standard public sector jobs to the unemployed. The recent opposition of unions and social democrats towards a work scheme introduced by the centre right government in Sweden best illustrates that the left may be strongly opposed to certain types of ALMPs (Kullander and Bjornberg, 2011). This is ultimately an empirical matter.

As argued in the previous section, the effect of partisanship on training is historically unclear and theoretically less important than the type of capitalism in which government policy making takes place. This is because training is particularly important to employers and economic performance more generally in CMEs (Hall and Soskice, 2001; Swenson, 2002). Thus, one can expect training spending to be higher

in the two welfare regimes that encompass more coordinated market economies, such as the Scandinavian and, to a lesser extent, the Continental welfare regime. From this discussion, the following hypothesis is posited:

H2: (a) The negative correlation between left parties in government and employment incentives and rehabilitation will be stronger in Scandinavia; (b) the control of government by left-wing parties is positively correlated with direct job creation in Continental and minimalist welfare regimes, and; (c) training spending is higher in non-minimalist welfare regimes.

4. Empirical analysis

One important limitation of studies focusing on welfare state spending is that “the existence of a social programme and the amount of money spent on it may be less important than what it does” (Esping-Andersen, 1990: 2). Relying on total social expenditure for comparing welfare states has entailed a significant “dependent variable problem” (Clasen and Siegel, 2007). This problem partly goes beyond the remit of this paper. While acknowledging that this is a valid limitation, this paper follows Castles’ contention (2009: 46) that “if the problem is the aggregation of unlike categories of spending, the ... way forward is to avoid an inappropriate elision of spending categories.”

Recent literature shows that disaggregating social expenditures yields important insights into welfare state policy (Kuitto, 2011). Indeed, this is precisely the rationale for disaggregating ALMPs. Moreover, to the extent that the rights and duties

as well as the extent of decommodification associated with spending levels follow Esping-Andersen's typology, controlling for the welfare state regimes in which spending is located, may also further alleviate this limitation. The rest of this section describes the data that is used for my dependent and independent variables (4.1). It finally presents the empirical model used to test the hypotheses and explains the appropriate estimation strategy (4.2).

4. 1. Description of data

Throughout, I rely on panel data for fourteen European countries (EU15 minus Luxembourg) over the period 1990 to 2007, though data availability varies depending on variables and countries. The analysis starts in 1990 because of data availability but is also pertinent since most countries outside of Scandinavia did not undertake significant ALMPs prior to the 1990s. The period under consideration stops in 2007 to avoid the bias that the recent economic and financial crisis would introduce.

With respect to my dependent variables, I rely on the OECD statistics database. The OECD provides annual data on spending as % of GDP on these three types of ALMPs. My first dependent variable is constructed by summing employment incentives and supported employment and rehabilitation. The second dependent variable is training measures in the database; and the third concerns the 'Direct Job Creation' category. More details on the definitions and average values of the dependent variables for each country can be found in Tables A1.1 to A1.3 in the

appendix. Definitions and sources of independent variables are discussed in A1.4 in the appendix.

ALMPs aim to address problems that are driven by labour market and macroeconomic developments (cf: Bonoli, 2010). It is therefore particularly important to control for the performance of the labour market and the economy. To control for the labour market, the analysis includes annual harmonised unemployment rates defined as the number of unemployed people as a percentage of the civilian labour force. The state of the economy is controlled by including annual GDP growth in percentages because higher growth of GDP may affect both the cyclical and the discretionary components of policies. Further, controlling for the degree of deindustrialisation or trade openness does not alter the results.¹⁴

The measure of the impact of partisanship is an updated version of the Schmidt index taken from the Comparative Political Data Set III, 1990-2009 (Armingeon *et al.*, 2011). This calculates the political composition of the Cabinet. The original coding is from (1) hegemony of right-wing (and centre) parties through to (5) hegemony of social democratic and other left-wing parties. I have rescaled this variable to take values from -2 to +2.

¹⁴ These results can be found in Tables A1.21 to A1.23 in the appendix.

4. 2. Empirical model and estimation strategy

I construct two dichotomous variables to capture the impact of welfare regimes. The dummy ‘MIN’ is equal to 1 when the country has a minimalist welfare regime, zero otherwise. Similarly, the dummy ‘CONT’ is equal to 1 when the country is a continental welfare regime, and zero otherwise. When both dummy variables are zero, the intercept then captures the impact of the Scandinavian welfare regime on the dependent variables.

The mediating effect of welfare regimes on the impact of partisanship on different ALMPs is captured by introducing an interaction term between my measure of partisanship and the set of dichotomous regime variables. Panel data regression analysis of the three dependent variables is used to test my hypotheses. More specifically, the general regression model that is tested is as follows:

$$y_{i,t} = \beta_0 + \beta_1 PARTY_{i,t} + \beta_2 PARTY_{i,t} * MIN_i + \beta_3 PARTY_{i,t} * CONT_i + \beta_4 MIN_i + \beta_5 CONT_i + \beta_6 HU_{i,t-1} + \beta_7 GDP_{i,t-1} + \alpha_t + \varepsilon_{i,t}$$

where $y_{i,t}$ is the dependent variable in country i at time t . There are three dependent variables expressed in levels: spending on direct job creation, employment incentives and rehabilitation, and training as a percentage of GDP. With respect to the explanatory variables, PARTY is the index measure of partisanship that was explained earlier. MIN and CONT are dummy variables measuring the intercept effect of belonging to minimalist and continental welfare regimes, respectively.

In addition, the interaction terms PARTY*CONT and PARTY*MIN capture how welfare regimes influence the impact of partisanship on the dependent variable.

For instance, to assess the effect of left-wing power in Continental Europe one should look at $\beta_1 + \beta_3$. Unemployment (HU) and GDP growth (GDP) are lagged one period. Lastly, the α_t 's are t-1 year dummies and $\varepsilon_{i,t}$ is the residual. Time dummies are included to capture time effects but a Hausman test (Hausman, 1978) and F-tests (see Tables A1.7 and A1.8 in the appendix) confirmed that random effects should be used to estimate this model. Note further that including fixed effects would rule out any investigation of the effect of my independent variables on the cross-national variation in my dependent variables and that the welfare state dummies would be collinear with fixed effects.

As my dependent variables are time-series data expressed in levels, it is necessary to test for stationarity. The Im-Pesaran panel data unit root stationarity test is used to test for non-stationarity (see Table A1.6 in appendix). Only spending on direct job creation is found to be non-stationary at the 10% significance level. This problem is hard to address because taking the first difference is not an option since we are interested in explaining the levels of different ALMPs, not their change. To the extent that partisanship is not trended (see figure A1.1 in the appendix), my main independent variable will not be spuriously related to the dependent variables.

The regression method that was initially used was the Feasible Generalised Least Square (FGLS). However, the LR test of heteroskedasticity and the Woodridge test for autocorrelation revealed that the residuals using FGLS were both heteroskedastic and auto-correlated (see Tables A1.9 and A1.10 in appendix) thereby violating the assumptions of spherical disturbances. The errors are also

contemporaneously cross-sectionally correlated (see Table A1.11 in appendix). It is therefore inappropriate to rely on robust clustered errors, which assume that panels are independent (Hoechle, 2007).

In sum, the diagnosis tests suggest that there is heteroskedasticity, contemporaneously cross-sectionally correlated and auto-correlated errors. The appropriate estimation method in such a case is to carry out OLS with Panel Corrected Standard Errors (PCSE) and Prais-Winsten transformation (Hoechle, 2007: Table 1, p. 4). PCSE was developed by Beck and Katz (1995) and is robust to the presence of heteroskedasticity. To eliminate serial correlation of errors, the Prais-Winsten transformation introduces an autoregressive process of order 1 in the estimated equation (Plumper *et al.*, 2005: 349).

5. Results and discussion

This section discusses the results of the regression analysis for each dependent variable: (5.1) employment incentives and rehabilitation, (5.2) direct job creation and (5.3) training. These results are broadly robust. Jack-knife robustness checks,¹⁵ inclusion of competing variables,¹⁶ running the regression with fixed effects,¹⁷

¹⁵ See Table A1.15 in the appendix for the results of the jack-knife analysis.

¹⁶ See Tables A1.12 to A1.14 in the appendix for results with the inclusion of employment protection legislation, wage coordination, union density and spending on passive labour market programmes as % of GDP.

¹⁷ See Tables A1.16 and A1.17 in the appendix for results of the regression with fixed effects.

distinguishing between employment incentives and employment rehabilitation,¹⁸ and using an alternative clustering of welfare regimes¹⁹ (with four distinct regimes following Ferrera, 1996) did not fundamentally alter the results.

Note that the effect of GDP growth on the dependent variables should be interpreted with caution. Given that the dependent variables are all expressed as percentages of GDP, there may be a spurious negative relation between GDP growth and the dependent variable. Consistent with this point, there is a significant negative relation between GDP growth and direct job creation and training (Tables 2 and 3). The effect of unemployment may, in principle, provide a better proxy for the macroeconomic context but the results suggest only training is positively related to unemployment (see Table 3).

5. 1. The determinants of employment incentives and rehabilitation

The results for employment incentives and rehabilitation are presented in Table 1. Results suggest that left-wing control of the government and spending on employment incentives and rehabilitation are negatively related. This is in line with the qualitative evidence and with the hypothesis presented earlier. This contradicts the empirical results of the Power Resource approach that analysed the determinants of ALMPs. It also contradicts Boix's (1998) contention that left leaning governments necessarily undertake a supply side strategy, whatever its nature or the domain in

¹⁸ See Table A1.18 in the appendix.

¹⁹ See Table A1.19 in the appendix.

which it is applied. This finding is consistent with the notion that left-wing parties will not want to spend more on employment incentives and rehabilitation because this may be neither beneficial for workers nor for the unemployed. This result is stable and significant across specification. Note that including employment protection legislation, union density, an index of wage coordination, or spending on passive labour market policies did not affect this result.²⁰

Second, the coefficients of both regime dummies are negative and significant (Columns 2 and 3). This is consistent with the notion that both Minimal and Continental welfare regimes spend less on employment incentives and rehabilitation than Scandinavian regimes. Omitting regimes might spuriously attribute the higher spending to partisanship. This is because Scandinavian countries have on average been ruled by social democrats more so than in the rest of Europe.

Third, the interaction terms between partisanship and the type of welfare regime is positive and significant. This suggests that the left in Scandinavia is indeed more negatively related to employment incentives and rehabilitation than is the case in Continental welfare regimes. This finding is also consistent with Jensen's (2010: 282) argument that "in countries that have a tradition of left-wing incumbency ... right-wing governments compensate for the distrust of the public because of the popularity of the welfare state and strong vested interests." As a result, there is a significant positive relation between "right-wing governments and social spending in traditionally left-wing countries" (*ibid*). Lastly, though significant and positive the coefficient's net

²⁰ See Table A1.12 in the appendix.

effect of the left in minimal welfare regimes is not very large. This small positive coefficient is consistent with the adherence of the left to the third way in the UK (Giddens, 1998) thereby mitigating partisan differences.

Last but not least, using an alternative measure of government control by the left, whether in cabinet or in parliament, does not alter the results. In addition, running two separate regressions for continental and Scandinavian welfare state regimes, respectively, also yields similar results. I also run a fully interactive model (no constant) between the left and welfare regimes on the first difference of my dependent variable. Again the results are unchanged (see appendix A1.3).

Table 1: Determinants of spending on employment incentives and rehabilitation

Columns	(1)	(2)	(3)
Government partisanship <i>(from -2, right-wing, to +2, left-wing)</i>	-0.0098**	-0.0097**	-0.0324***
Dummy variable for Minimal welfare regime		-0.4459***	-0.4310***
Dummy variable for Continental welfare regime		-0.3010***	-0.2892***
Minimal welfare regime*Partisanship			0.0312**
Continental welfare regime*Partisanship			0.0303**
Harmonised Unemployment Rate (lagged one period)	-0.0013	0.0021	0.006
GDP growth (lagged one period)	-0.001	-0.0006	0.001
Constant	0.2580**	0.5417***	0.5275***
Observations	242	242	242
R-squared	0.1438	0.2743	0.3029

Note: *p<0.1; **p<0.05; ***p<0.01.

5.2. The determinants of direct job creation

The results for the determinants of direct job creation are presented in Table 2. The coefficient for the Minimal welfare regime is negative but not significant, while it is positive but not significant for the Continental regime (column 2 and 3). This cannot conclusively confirm that the Continental welfare regime spends more on direct job creation than the other two regimes, regardless of partisanship. However, this would be consistent with earlier qualitative evidence that shows the tendency of the continental regime to reduce labour supply; early retirement schemes in the 1980s fulfilled such a role. The fact that the minimal welfare regime may spend less than the other two regimes would be in line with their smaller welfare states.

Moreover, as shown in columns 1 and 2, the coefficient for partisanship is not significant. However, in the fully specified model (column 3) left power does have a significant negative coefficient in Scandinavia. This means that left-wing parties in Scandinavian countries are associated with less spending on direct job creation. By contrast, the impact of the left in Minimal and Continental welfare regimes is significant and positive. Both results are in line with the hypothesis that in Continental welfare regimes left-wing parties will favour direct job creation.

It is important to recall that ALMPs have spending targeted at the unemployed. In Scandinavia, a large and expanding public sector may have played the role of direct job creation in the Continental regime. Iversen and Cusack (1998) have argued that the large public sector in Scandinavia made it possible for them to achieve the twin objectives of employment and equality. Consistent my logic, the left is indeed

associated with more public sector employees as % total employees in Scandinavian but not in continental welfare regime (see Table AA1.11 in appendix A1.3). Thus, while left-wing parties will not support employment incentives and rehabilitation, these results show that left-wing parties will not oppose all ALMPs in all regimes. In contradiction with Rueda's (2007) findings, the left does support some ALMPs, provided that this does not hurt employed labour.

To further check that the partisan effect on direct job creation does indeed depend on the welfare regime in which the left is located, I run two separate regressions on continental versus Scandinavian welfare regime. The results, shown in table AA1.10 in appendix A1.3, confirm that the left is indeed associated with an increase on spending in the Continental welfare regime but with a decrease in spending in Scandinavian welfare regime.

Table 2: Determinants of spending on direct job creation

Column	(1)	(2)	(3)
Government partisanship <i>(from -2, right-wing, to +2, left-wing)</i>	-0.0039	-0.0043	-0.0217**
Dummy variable for Minimal welfare regime		-0.0815	-0.0699
Dummy variable for Continental welfare regime		0.0719	0.0814
Minimal welfare regime*Partisanship			0.0236**
Continental welfare regime*Partisanship			0.0235**
Harmonised Unemployment Rate (lagged one period)	0.0026	0.0044	0.0034
GDP growth (lagged one period)	-0.0074***	-0.0068***	-0.0055**
Constant	0.0832***	0.0823	0.0703
Observations	242	242	242
R-squared	0.1935	0.2266	0.255

Note: *p<0.1; **p<0.05; ***p<0.01.

5.3. *The determinants of training schemes*

The results for spending on training schemes are presented in Table 3. First and foremost, the coefficient of partisanship is not significantly related to training schemes, regardless of the specification. Table AA1.12 in appendix A1.3 confirms using an alternative measure of partisanship that the left is not associated with more or less spending on training, regardless of the welfare regime under consideration. Thus, spending on training schemes is not driven by left parties' power. This contradicts Boix's (1998) argument that left-wing parties will necessarily spend more on training as part of a broad supply side strategy. It is *prima facie* consistent with Rueda's (2007) findings that social democratic parties have no overall statistically significant association with spending on ALMPs.

A second reason for the statistically insignificant impact of partisanship on training is that the welfare regime could by itself fully determine the amount spent on training. This is partly consistent with the results presented here. Indeed, the coefficient of the dummy variable for the continental welfare regime is negative and significant. Moreover, the coefficient of the dummy variable for the Minimal welfare regime is much more negative than that of the Continental welfare regime.

Governments in Scandinavian welfare regimes spend, all other things being equal, more than those in continental welfare regimes, which spend more than governments in Minimal welfare regimes. This is in line with the expectation that training should be higher in CMEs than in LMEs. To further investigate whether spending on training is driven by the degree of coordination, I have run a regression

with the Hall and Gingerich index of coordination (Hall and Gingerich, 2004). The coefficient for coordination is significant and positive while partisanship has no impact. The results thereby confirm that training is indeed driven by the degree of coordination of the economy, and not partisanship.²¹

The differences in the effects of Scandinavian and Continental welfare regime require more explanation. The Continental regime encompasses economies such as France that are in fact closer to being a Mixed Market Economy (MME) than a CME. Training may hence be less important in MMEs than in CMEs, which is then captured by differences in the results for Scandinavian and Continental regimes.

Another possibility is that differences in the way training systems are organised within CMEs have implications for the amount of spending that is channelled towards training the unemployed. While Scandinavian CMEs such as Sweden and Norway rely on vocational colleges, Continental CMEs rely instead on the dual apprenticeship system (Estevez-Abe *et al.*, 2001: 170, 171). If much more of the training in Continental CMEs is provided privately by firms, this may explain why public spending on training for the unemployed may be lower in Continental CMEs than in Scandinavian CMEs.

²¹ The results can be found in Table A1.24 in the appendix.

Table 3: Determinants of spending on training schemes

Columns	(1)	(2)	(3)
Government partisanship <i>(from -2, right-wing, to +2, left-wing)</i>	-0.003	-0.0031	0.0069
Dummy variable for Minimal welfare regime		-0.2984***	-0.3111***
Dummy variable for Continental welfare regime		-0.1772***	-0.1923***
Minimal welfare regime*Partisanship			-0.0143
Continental welfare regime*Partisanship			-0.012
Harmonised Unemployment Rate (lagged one period)	0.0074*	0.0108***	0.0106***
GDP growth (lagged one period)	-0.0070**	-0.0060**	-0.0066**
Constant	0.1822***	0.3528***	0.3703***
Observations	241	241	241
R-squared	0.2	0.2818	0.3081

Note: *p<0.1; **p<0.05; ***p<0.01.

Conclusion

Despite significant insights, the comparative political economy literature has produced competing theoretical expectations concerning the role of partisanship in driving spending on ALMPs. To solve this puzzle, this paper has made four points. First, drawing on qualitative evidence in the welfare state literature, analysis of individual preferences for labour market policies and the effect of these policies on inequality, this paper contributes to this debate by arguing that ALMPs have distinct political determinants. The question for comparative political economy should therefore be what is driving spending on different types of ALMPs, rather than on aggregate spending on ALMPs.

Second, I argue that the importance of welfare regimes has been overlooked in existing quantitative studies of ALMPs. The findings confirm this contention: Scandinavian welfare regimes spend more on employment incentives and rehabilitation. Scandinavian and Continental welfare regimes also spend more, all other things equal, on training schemes than Minimal welfare regimes do, in line with the notion that training may be less central to their production regimes.

Third, the findings of this paper concerning employment incentives and rehabilitation contradict both the traditional Power Resource approach and the argument advanced by Boix (1998). Left-wing parties spend less on employment incentives and rehabilitation than other parties, because of the adverse effects these programmes may have on workers. This invalidates the implicit claim in the welfare state literature that 'more is better'. As a result, more welfare state spending may not always be driven by the strength of labour. More importantly, this negative relation is even stronger in Scandinavia. In other words, a shift to the left in Scandinavia is associated with a greater fall in employment incentives and rehabilitation than in continental Europe.

Fourth, left-wing parties are positively associated with direct job creation in the Continent and negatively associated with these policies in Scandinavia. This is an important result in a number of respects. It confirms using regression analysis that different ALMPs have different partisanship dynamics, in line with what Bonoli (2010) argues through qualitative methods. It also suggests that parties of a similar ideology may behave in opposite ways in different welfare regimes. For instance, the

ability of Scandinavian left-wing parties to expand standard public employment may explain why they do not spend more on direct job creation.

Moreover, this result shows that, contrary to what Boix (1998) argues, supply side policies are not the only arena where meaningful partisan differences remain. Direct job creation is a classic demand management policy tool. The evidence presented in this paper shows that left-wing parties do spend more on direct job creation. In addition, Rueda (2007) argues that social democratic parties do not spend more on ALMPs because these programmes do not benefit their core constituents. On the contrary, this paper demonstrates that social democrats do spend more on some ALMPs, provided that these are in line with the interests of both outsiders and insiders.

This paper suggests further research into the political economy determinants of different ALMPs may prove fruitful. It also raises the possibility that left-wing parties may have vastly different preferences for distinct welfare state policies. These preferences may also be contingent on the institutional setting in which these parties operate. While this paper focuses on showing that even with a simple operationalization of welfare regimes, the effect of partisanship on distinct ALMPs may differ, more research would be instrumental in investigating which characteristics of welfare regimes drive this process.

In addition, a question that was not investigated here concerns the possibility of changing social democratic positions towards ALMPs over time. For instance, the emergence of the 'Third way' entails a greater reliance on market mechanisms to

reach social objectives. Considering the case of employment incentives and rehabilitation and comparing the period 1990-1998 with that of 1999-2007 does indeed suggest this may be a worthwhile avenue for further research.²² Similarly, this paper did not systematically analyse the relationship between disaggregated ALMPs and Passive Labour Market Policies (PLMPs) or with the activation of labour market policies. Additional results²³ show that there is a positive relationship between all types of ALMPs and PLMPs, suggesting that these policies seem to be complements rather than substitutes. Further research concerning the relation of different ALMP measures with more qualitative aspects of activation would prove valuable.

²² While the basic regression results are the same for the whole period as from 1990 to 1998, for 1998 to 2007 the effect of partisanship retains the same signs but loses statistical significance. Note that this may be due to losing too many degrees of confidence by reducing the sample size. Hence, more research on this is needed. The results are presented in Table A1.20 in the appendix.

²³ See Table A1.25 in the appendix for these regression results.

Paper 2

II: THE POLITICS OF TEMPORARY WORK DEREGULATION IN EUROPE: SOLVING THE FRENCH PUZZLE

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Abstract

Temporary work has expanded over the last three decades with adverse implications for inequalities. Temporary workers are a constituency that is unlikely to impose political costs, meaning governments often choose to reduce temporary work regulations. While most European countries have indeed implemented such reforms, France went in the opposite direction despite having both rigid labour markets and high unemployment. My argument to solve this puzzle is that where replaceability is high, workers in permanent and temporary contracts have overlapping interests, and governments choose to regulate temporary work to protect permanent workers. In turn, replaceability is higher where permanent workers' skills are general and wage coordination is low. Logistic regression analysis of the determinants of replaceability, and how this affects government reforms of temporary work regulations, supports this argument. In-depth qualitative analysis of French reforms also confirms that the left has tightened temporary work regulations to compensate for the high replaceability.

Introduction

A growing literature documents the increased dualisation of welfare state policies and employment protection in Europe (Emmenegger *et al.*, 2012). Welfare states have been reformed in ways that reduce the entitlements, protection and welfare of outsiders, understood here as precarious and unemployed workers (Eichhorst and Marx, 2011; Emmenegger *et al.*, 2012). The literature argues that governments choose to preserve existing institutional arrangements for insiders while reducing the entitlements and employment protection of outsiders. In this paper I consider the case of temporary workers, which represents a good case of outsiders. The expansion of temporary work also has political implications as these workers have distinct political preferences (Lindvall and Rueda, 2012) and distinct preferences for labour market policies.²⁴ More importantly, like other labour market outsiders, temporary workers have lower electoral turnout raising the risk of an increasingly large segment of the population being politically excluded (Rueda, 2007; Hauserman and Schwander, 2012).

The emergence of temporary work also has wide-ranging implications for inequality. Besides having lower objective and subjective employment security (Burgoon and Dekker, 2010; Erlinghagen, 2008; Gash, 2008), these workers also earn comparatively less, report lower job satisfaction and have less access to training (Appelbaum, 1992; Blanchard and Landier, 2002; Booth *et al.*, 2002; Postel-Vinay and Cahuc, 2002; Kalleberg, 2003; D'Addio *et al.*, 2007; Jahn *et al.*, 2012). In Europe,

²⁴ For instance, they favour unemployment protection much more than permanent worker (See: Burgoon and Dekker, 2010).

temporary workers earn on average 20% less than their permanent counterparts and the pay gap remains when controlling for differences in seniority, skills and sector (Gash and McGinnity, 2007). The OECD estimates that the pay penalty of working with a temporary contract may be as large as 25% when controlling for gender, age, working hours and education (Brown and Sessions, 2005; Comi and Grasseni, 2012; OECD, 2012).

As a result, temporary workers are twice as likely to be in poverty than permanent workers (12% compared to 6%) (ETUI, 2012: 37). Wage inequality increases as the regulation of temporary work is reduced and the employment protection of regular workers is raised (OECD, 2012). They are also less often eligible for unemployment benefits and social insurance (ETUI, 2012: 36; Segal and Sullivan, 1997; Armingeon and Bonoli, 2006; Emmenegger *et al.*, 2012) and raise particularly acute challenges for private insurance systems (Kalleberg, 2006). Being employed on a temporary work contract also has adverse effects on health (Virtanen *et al.*, 2005; Gash *et al.*, 2007).

To the extent that temporary work is not evenly distributed among different groups of the population, these contracts also exacerbate pre-existing inequalities between workers of different gender, age and educational level (Kahn, 2007; Hagen, 2002). Women are more likely to be temporary workers thereby increasing gender inequality (Rani, 2008). Youth are particularly affected with 42% being on temporary contracts in the EU27 (ETUI, 2012: 35). More than 20% of those with low educational attainments are in the temporary work sector, twice as much as for those with high

educational attainments (ETUI, 2012: 36). Lastly, among low income workers, the pay gap between temporary and permanent workers is even larger (OECD, 2012).

The evolution of Employment Protection Legislation (EPL) for temporary workers in Europe (EU) has important implications for inequality and for the politics of labour market policies. Despite the adverse consequences of temporary work for inequality, poverty and economic efficiency, the ensuing politics of temporary work regulations holds a particular challenge for governments. Specifically, it is particularly difficult for governments to increase the protection of temporary workers because they are unlikely to impose political costs on governments that neglect their interests. To the extent that governments need to choose which group to protect or to focus on, they are unlikely to choose temporary workers. Thus, temporary work should be construed as a case of the political challenges that governments face to protect politically weaker groups.

Most governments have indeed reduced the EPL of temporary workers in the last two decades (see Table 4). There are three important exceptions to this trend: the UK, the Republic of Ireland (henceforth Ireland), and France. Both the UK and Ireland are liberal market economies, with very flexible labour markets (Hall and Soskice, 2001) and comparatively few temporary workers (see Table 4). Though they have slightly tightened the EPL for temporary workers, the resulting level in 2007 was still among the lowest in Western Europe.

The case of France is much more puzzling as its EPL for temporary workers in 2007 was the highest in Western Europe. This strongly suggests that France has been

moving in the opposite direction to other European countries. Whereas left-wing parties in other EU countries have deregulated temporary work when in government, the left in France has repeatedly increased regulations of temporary work. This is puzzling because France has all the conditions that the literature identifies for a reduction of outsiders' status, such as lower EPL for temporary workers, to occur. Regular workers in permanent employment, insiders, are well-protected. Unions have neither temporary workers among their members,²⁵ nor are they strong enough to protect them. France also had as much 'need' as other countries (e.g. unemployment, trade openness) to deregulate temporary work.

The question this paper addresses is: why has France tightened EPL for temporary workers in contrast to all other European countries? I argue that left-wing governments in France have systematically tightened EPL for temporary work because politically powerful workers in permanent contracts have overlapping interests with the relatively powerless group of temporary workers. This then allows temporary workers to benefit from the political strength of permanent workers. The degree of overlap in the interests of permanent and temporary workers depends on the extent to which firms can replace permanent staff by temporary workers. Where replaceability is low, the degree of overlap between temporary and permanent workers' interests is more limited. As a result, the ability of temporary workers to benefit from the greater political strength of permanent workers disappears. In turn, this fear of replacement

²⁵ The estimate is that less than 0.8% of agency workers are unionised; see Francois Michon, *France: Temporary Agency Work and Collective Bargaining in the EU* (2008), available from <http://www.eurofound.europa.eu/eiro/studies/tn0807019s/fr0807019q.htm>.

stems from the incentives those companies have to replace their workforce in rigid permanent contracts by temporary workers.

However, the ability of firms to replace permanent workers by temporary workers depends on three factors: skills specificity, 'skill deviation' and wage coordination. The higher the degree of skill specificity of regular workers the more difficult and unattractive it becomes for firms to replace them with temporary workers. Where firms have invested in workers' skills, they are less likely to replace them with temporary workers. Firms are also more likely to prefer permanent contracts for workers with specific skills since workers will only invest in specific skills when their jobs are well-protected (Hall and Soskice, 2001). 'Skill deviation' between regular and temporary workers refers to the differences in skills that these two groups of workers have. Where they have more similar educational attainments, it becomes easier to replace permanent staff by temporary workers. Wage coordination enables labour to prevent both replaceability through its say on internal labour market organisation and the detrimental effects of replaceability on wages, through its bargaining power over wages.

My argument encompasses two steps. First, I show that permanent workers feel the most replaceable where they have fewer specific skills and national wage coordination is low. Second, I argue that the left is more likely to tighten regulations of temporary work where replaceability is high and *vice versa*. Consistent with my argument, workers in France are much more likely to think it is very easy for firms to replace them because of the low skill specificity and low wage coordination as well as

similar skill profiles between temporary and regular workers. Replaceable workers represent an important constituency for left-wing parties in France. As a result, the French left has decided to tighten the protection of temporary work on numerous occasions during the last four decades with the explicit aim to prevent replaceability.²⁶

This paper is organised as follows. The next section reviews existing explanations of policies that target outsiders and argues that they cannot explain the case of France. The second section tests the determinants of both replaceability and changes in the protection of temporary workers. Section three then shows how this argument solves the French puzzle. The final section concludes with some implications for the politics of pro-outsider reforms in France and beyond.

1. The puzzle of temporary work regulations in France

1.1. Temporary workers and employment protection legislation

Following the convention of the Organisation for Economic Co-operation and Development (OECD), I define temporary employment to include both workers in interim agencies and those on fixed-term contracts.²⁷ Besides having lower employment protection than regular workers, temporary workers also earn on average

²⁶ While the puzzle is therefore why France was the only country to re-regulate significantly the temporary work sector, solving this puzzle requires making sense of why the French left made the policy choices that it did.

²⁷ Throughout this paper temporary employment or temporary work refers to the sum of interim or agency contracts and workers on fixed term contracts.

less than regular workers, have lower eligibility to social benefits (Bazen *et al.*, 2000; OECD, 1998; Schmid, 1994) and report having lower job satisfaction (Eurofound, 2007: 11; Eurofound, 2007: 9).

Temporary work has been on the rise in most European countries. The EU15 share of temporary workers relative to total dependent employees increased from 10% in 1990 to 15% in 2007 (Burgoon and Dekker, 2010: 127) and the number of temporary contracts has increased by an annual rate of 15-20% in the EU since the 1980s (Häusermann and Schwander, 2009: 5). This hides important cross-national variation (see Table 4). Between 1983 and 2007, temporary work fell in Greece by 5.36 percentage points whereas it increased by 16 percentage points in Spain. The pattern in 2007 ranged from a low of 5.85% in the UK to a high of 31.66% in Spain. Among EU15 countries, France occupied the sixth highest position in terms of the size of its temporary work force in 2007, and the third highest increase in temporary work over the period.

The OECD constructs a yearly index - EPL for temporary workers - that captures restrictions on the hiring and firing of temporary workers since 1985.²⁸ The index is calculated through the weighting of different sub-components.²⁹ An initial division can be made between the regulations of Temporary Agency Work (TAW) and those of Fixed Term Contracts (FTCs). The former includes three criteria: “types of work for which temporary work agency employment is legal”, “restrictions on number

²⁸ This refers to version 1 of the EPL OECD index which is available from 1985 to 2008.

²⁹ The values of these sub-components for different countries in 2007 are shown in Table A2.2 in the appendix.

of renewals”, and “maximum cumulated duration of TAW contracts.” Regulations of FTCs focus on “valid cases for use of fixed-term contracts“, “maximum number of successive FTC”, and “maximum cumulated duration of successive FTC“.³⁰

Table 4: EPL for temporary workers and size of temporary work sector in the EU

Countries	<i>EPL temporary workers</i>		<i>Temporary workers (share of total dependent employees)</i>		
	2007-1985	2007	2007	2007 - earliest year	Reference year
France	0.57	3.63	15.08	11.74	1983
Ireland	0.38	0.63	8.05	1.94	1983
UK	0.13	0.38	5.85	0.35	1983
Austria	0	1.5	8.89	2.9	1995
Finland	0	1.88	15.96	-2.38	1997
Spain	-0.25	3.5	31.66	16.07	1987
Portugal	-0.63	2.75	22.36	7.96	1986
Netherlands	-1.19	1.19	18.08	12.26	1983
Greece	-1.62	3.13	10.88	-5.36	1983
Denmark	-1.75	1.38	9.05	-3.4	1984
Belgium	-2	2.63	8.65	3.26	1983
Sweden	-2.45	1.63	17.45	2.85	1997
Germany	-2.5	1.25	14.64	4.68	1984
Italy	-3.5	1.88	13.21	6.6	1983

Source: OECD statistic website, own calculations.

Note: EPL for temporary workers is a composite index created by the OECD.

The steepest declines in the EPL for temporary workers occurred in coordinated market economies such as Germany, Sweden, Belgium and Denmark. A second group of southern European mixed market economies (e.g. Greece, Spain and Portugal) experienced drops which were slightly less important. Two countries did not

³⁰ See: <http://www.oecd.org/employment/employmentpoliciesanddata/42740190.pdf>.

experience a change in the overall index over the period under consideration: Austria and Finland. Only three countries saw an increase in the index. The UK and Ireland both tightened protection for temporary workers albeit from a very low level, so that they retained a comparatively flexible temporary work sector.

By contrast, France tightened EPL for temporary workers the most and had by 2007 the highest level of regulations on temporary work of Western Europe. There are three groups of potential explanations for the decline of EPL of temporary workers, none of which can satisfactorily account for what has happened in France: socio-economic pressures; partisanship and unions; and political as well as economic institutions. I now consider each group of explanations in turn.

1.2. Socio-economic pressures

A first set of determinants for lowering EPL is a deteriorating socio-economic situation which raises the incentives of governments to undertake unpopular reforms (Vis, 2009). International organisations and academic scholarship alike have long voiced concerns about the detrimental effects of rigid employment regulations on labour market performance (Blanchard, 2006; Blanchard and Summers, 1986; OECD, 1994). A number of studies have found that high EPL is associated with lower employment rates and higher unemployment rates (Di Tella and McCulloch, 1998; Lazear, 1990; Scarpetta, 1996).

When faced with long standing high unemployment, governments may therefore attempt to deregulate temporary work regulations. Most labour market

reforms are indeed undertaken where there is poor economic performance (Tompson, 2009) and this is particularly the case of two-tier labour market reforms that are often undertaken when unemployment is rising (Boeri *et al.*, 2006; Ochel, 2008). This narrative is consistent with the decision to lower the protection of temporary workers in Spain and Italy, but if it were true this should also have occurred in France. Indeed, unemployment has increased from less than 5% in the early 1970s to more than 10% by the mid-1990s.³¹ The average unemployment rate in the period 1990-2000 was also higher in France than in some countries that deregulated at the margin such as Germany (see Table 5).

A second type of pressure concerns competitiveness. Deregulation of EPL was seen as important to keep wage inflation under control, thereby retaining trade competitiveness (Nickell, 1997; Nickell and Layard, 1999). When faced with greater international competition and higher trade openness, governments may also be more likely to deregulate EPL (Fisher and Somogyi, 2011; Potrafke, 2010). Globalisation may result in regulatory competition between countries (Bhagwati and Hudec, 1996) or weaken the sectors that are more unionised (Boulhol, 2009), thereby reducing the ability of labour to prevent deregulation. However, trade openness was similar or higher in France than in other southern European countries that deregulated their temporary work sector (see Table 5).

³¹ Statistics taken from the French National Institute of Statistics and Economic Studies, INSEE, accessible at: <http://www.insee.fr/en/>

1.3. Partisanship and unions

All governments face important electoral costs of reducing insiders' advantages, as policies create their own constituencies (Pierson, 2001). By protecting most existing employees, reforms of temporary work are less likely to generate significant opposition (Saint-Paul, 2000). Consistent with this, more than half the reforms in Europe since the 1980s have been 'two-tier' in the sense that they concerned only some portion of the workforce (Boeri, 2010).

The ideology of the political party in power may also affect a government's decision to deregulate EPL. Following the 'Nixon goes to China' logic (Cuckierman and Tommasi, 1998; Ross, 2000), it could be politically easier for the left to undertake deregulatory labour market reforms, for instance, because it is easier for left governments to elicit union agreement for a reform. While it may indeed be easier for the left to pass labour market reforms, it has strong electoral and ideological reasons not to do so. Indeed, the Power Resource approach has long shown that more stringent EPL is conducive to wage earners' interests and so should be supported by left-wing parties to improve the bargaining power of wage earners relative to employers (Korpi, 1983). As Botero *et al* (2004: 1344) argue, "regulations protecting workers...are introduced by socialist, social-democratic, and more generally leftist governments to benefit their political constituencies". The working class has strong preferences for higher employment protection and represents a major constituency of the left (Emmenegger, 2009; Dalton, 2006). Therefore the left has clear electoral incentives to increase – or at least not reduce – EPL.

While the left has in a very limited number of cases, passed labour market reforms reducing EPL (Tompson, 2009), the historic evidence shows that the labour movement has played a key role in pushing for EPL in Switzerland, Germany, Denmark, Italy and Sweden (Bonoli and Emmenegger, 2010; Emmenegger, 2009; Emmenegger and Marx, 2011). The vast majority of large N regression analyses of EPL also suggest the left is less likely to reduce the protection of permanent workers. Some econometric analyses find support for the claim that liberalising reforms in general are less frequent when governments are left leaning (Høj *et al.*, 2006).

In an analysis of EPL in eighty five countries, Botero *et al.* (2004: 1339) conclude that the power of the left is associated with higher levels of labour regulation. Rueda (2007: 90) finds significant empirical support for the claim that in the long run the left is associated with higher EPL in a sample of sixteen industrialised countries. Similarly, Fisher and Somogyi (2011) find that left-wing governments are more likely to support higher EPL. Conversely, an IMF (2004) study and Algan and Cahuc (2004) show that conservative governments are more likely to reduce EPL. Only one study by Potrafke (2010) finds no evidence that left-wing parties were associated with changes in EPL.

The expectations concerning the impact of partisanship on EPL for temporary workers are less straightforward. The insider-outsider literature suggests that insiders may only care about their own employment protection while being indifferent to the fate of the unemployed and precarious workers (Rueda, 2007). Faced with the need to increase labour market flexibility, deregulating temporary work may be the only

viable electoral choice for left-wing parties that are reluctant to reduce the protection of regular workers. While this literature does not directly speak to left-wing parties' preferences with respect to EPL of temporary workers, the expectation should be that more protected regular workers have less probability of becoming unemployed and are less affected by a weakly protected temporary work sector. As a result, where insiders are well-protected, left-wing parties should not care about temporary workers and they should have higher incentives to find flexibility at the margin.

Left governments have indeed reduced the regulations of temporary work in a number of EU countries (e.g. the *Sozialdemokratische Partei* in Germany in 2004, the reform of workers' statutes by *Partido Socialista Obrero Español* in Spain in 1984 – see Table 5). However, the problem with this explanation is that countries with low indices of EPL for regular workers (e.g. Denmark and Belgium – see Table 5) have also lowered the protection of temporary workers, while France which has a comparatively high EPL for regular workers has gone in the opposite direction.

The inclusiveness and strength of unions should also matter for EPL. Union density has traditionally been used by power resource scholars to gauge the strength of unions (Bradley *et al.*, 2003; Korpi, 1989; Korpi and Palme, 2003). Unions with larger membership are expected to be stronger, and are in turn expected to be better able to protect existing employment protection regulations. French unions are particularly weak according to this measure, and in any case, high union density countries have also reduced EPL for temporary workers (see Table 5). The low union density for

temporary workers in France³² also rules out the possibility that unions in France were more inclusive of temporary workers and hence took their interests into account more than elsewhere.

1.4. Political institutions and varieties of capitalism

Governments of all political stripes may be constrained by political and economic institutions. Fragmented states or coalition governments should be less able to undertake reforms (Tompson, 2009).³³ If anything, France's majoritarian electoral system and centralised political system (Lijphart, 2012) should therefore increase the government's ability to reduce EPL for temporary workers. Where the role of social partners is institutionalised, for instance in corporatist countries (Schmitter, 1974), governments should also be more limited in their abilities to implement reforms (Ochel, 2008). However, France is closer to a pluralist than a corporatist system, and in any case, certainly less corporatist than many other European countries (Keeler, 1985; Siaroff, 1999) as interest groups mostly influence policy-making through lobbying and protests (Wilson, 1983).

Moreover, governments operate in distinct varieties of capitalism characterised by systematically different degrees of non-market coordination in key spheres of the economy such as training system, industrial relations, financial markets, and internal

³² The estimate is that less than 0.8% of agency workers are unionised (see: Michon, France: Temporary Agency Work, 2008).

³³ Similar arguments have been made regarding the ability of governments to curtail deficits (see for instance Alesina and Drazen, 1991).

management (Hall and Soskice, 2001). In liberal market economies, flexible labour markets are needed to ensure wage moderation. Labour mobility is also conducive to knowledge transfer and hence to the radical innovations characteristic of liberal production systems (*ibid*).

By contrast, in coordinated market economies a high EPL is seen as necessary to incentivise employees to invest in the specific skills on which their firms' production strategies rely (Estevez-Abe *et al.*, 2001; Wood, 2001; Hall and Soskice, 2001). As a result, employers and regular workers in large companies may have a common interest in deregulating temporary work. Employers may see in temporary workers the flexibility necessary to adjust to variations in economic activity while retaining the institutional complementarity necessary for their diversified production strategy (Hassel, 2011).

Governments in coordinated market economies may therefore have a greater incentive to facilitate the hiring and firing of temporary workers. Deregulation of temporary work promotes employment creation while retaining the institutional complementarities of the system. This narrative is consistent with the experience in Germany, but the expectations are less clear for France since it has been categorised as a mixed market or statist economy (Hancké *et al.*, 2007; Schmidt, 2003). The expectation should be that France follows a similar path to other mixed market economies and statist countries. However, while Spain and Italy have indeed reduced EPL for temporary workers significantly over the past three decades, the reverse occurred in France (see Table 4).

Table 5: Changes in the protection of temporary workers across Europe

Countries	Unemployment rate	Openness	Reform direction (Δ EPL temporary worker) by year and party in power when reform occurred	Union density	EPL regular workers	Index of wage coordination
Austria	3.82	75.38	No changes	41.26	2.92	4.11
Belgium	10.88	131.48	Fall (1997): coalition Christian democrat – left dominant (53.3%)	54.00	1.68	4.43
Denmark	7.43	72.96	Fall (1995): coalition liberal - left dominant (75%)	76.03	1.65	3.46
Finland	11.71	62.19	No change in index	77.89	2.42	3.68
France	9.63	46.41	Rise (1990): left (70%)	8.92	2.34	2.11
Germany	7.84	51.92	Fall (1994): right CDU-CSU-FDP (76%) Fall (1997): right (83.3%)	29.37	2.65	4.00
Greece	9.74	47.93	Fall (2003): left (100%)	31.68	2.25	4.00
Ireland	11.50	138.47	Rise (2003): right (100%)	44.48	1.60	3.86
Italy	11.27	43.55	Fall (1997): centre left coalition (50%) Fall (1998): centre left coalition (49.6%) Fall (2000): centre left coalition (57.9%) Fall (2001): centre right coalition (40%) Fall (2003): centre right coalition (70%)	37.44	1.77	3.36
Netherlands	5.81	114.81	Fall (1999): grand coalition	24.75	3.07	4.11
Portugal	5.43	62.24	Fall (1996): left (77.78%) Fall (2004): right (94.69%)	25.26	4.38	2.82
Spain	19.29	45.32	Fall (1994): left (100%) Rise (2001): Right (100%)	16.04	3.12	3.42
Sweden	7.37	69.49	Fall (1993): right (61.90%) Fall (1997): left (100%)	81.56	2.87	3.54
UK	7.85	53.28	Rise (2002): left (100%)	33.91	1.16	1.00

Sources: EPL regular workers (average 1990-2000), openness (average 1990-2000), unemployment rate (average 1990-2000) and union density (average 1990-2000) taken from the OECD statistic website. Note: Reforms to change the EPL temporary work index developed by the OECD, party in power follows the comparative political dataset coding of % of cabinet seats held by the left, centre and right (% in brackets refers to right or left parties, excluding centre) and wage coordination index (average 1980-2007) taken from Visser (2009).

2. Replaceability and the regulation of temporary work

2.1. Do regular workers benefit from lower protection of temporary workers?

Insiders in permanent full-time employment have incentives to ask for higher than market-clearing wages where employment protection is high. The higher wage settlements restrict the access of the unemployed to the labour market (Lindbeck and Snower, 1988; Solow, 1985). High EPL increases the market power of insiders, who therefore are the main defenders of the *status quo*, when the latter is defined by high levels of EPL (Lindbeck and Snower, 2001). Support for high levels of EPL will be higher where the bargaining power of insiders is high (Saint-Paul, 1999). There is some evidence that insiders do indeed favour higher levels of job security than outsiders (Rueda, 2006), though this is contested by other authors who argue that insiders and outsiders have similar preferences for employment protection (Emmenegger, 2010).

To the extent that permanent employees are an important constituent for all political parties (Fernandez and Rodrik, 1991; Rueda, 2007), this should result in a *status quo* bias among policy makers (Saint-Paul, 2000). Higher exposure of insiders to unemployment may push them to internalise the adverse effects of EPL on labour market re-entry and hence increase their support for EPL liberalisation (Saint-Paul, 1996). The implications for the politics of employment protection of temporary workers are less straightforward, but most of the literature seems to assume that regular workers are unaffected by such reforms. Governments are seen as more likely

to reform EPL for temporary workers because regular workers will fight against reductions in their protection but are unaffected by changes in EPL for temporary workers.

However, where regular workers have *de jure* high employment protection, employers will have an incentive to replace them with temporary workers. Conversely, if EPL for regular workers is very low, companies have no need to employ temporary workers. If this is true, lowering the EPL of temporary workers may make this process of substitution easier. In many respects, this is consistent with substitution effects between different types of jobs already documented in the economics literature (Kahn, 2007). Cross-national evidence shows that “policies making it easier to create temporary jobs on average raise the likelihood that wage and salary workers will be in temporary jobs” which may result in a “substitution of temporary for permanent workers” (*ibid*: 1). As a result, decreasing protection for temporary contracts may raise incentives for firms to substitute permanent contracts by temporary jobs (Blanchard and Landier, 2002).

Regular workers may therefore be adversely affected by lower protection of temporary workers. In the most extreme case, a company may be more willing to fire permanent worker and replace them by temporary workers as the regulations of temporary work are reduced. Permanent workers may also be affected through the pressures that the lower protection of temporary workers creates. For instance, a large temporary work sector may put pressure on regular permanent workers by forcing them to also increase their flexibility (Eichhorst and Marx, 2011). Similarly, the

substitution of permanent for temporary jobs in the economy has also been shown to reduce the welfare of the average worker (Postel-Vinay and Cahuc, 2002). I argue that the ability of employers to replace permanent staff by temporary workers is dependent on three factors: skill specificity, the educational profile of the temporary workers relative to permanent workers, and the degree of wage coordination.

The first factor - skill specificity – matters because regular workers must have fairly general skills for the employer to replace them. The literature generally contends that workers with specific skills should be strong supporters of high EPL. Job security protects their investment in non-transferable assets which would be wasted in the event of job losses (Estevez-Abe *et al.*, 2001). What is less often emphasised is that the reverse is also likely to be true. Where skills are general, the pool of labour from which employers can choose workers is more homogenous. As a result, “the individual members ... are substitutable for each other without serious loss of productivity” (Goldthorpe, 2000: 216).

Where skills are specific, long-term tenure is also required for the employee to acquire the necessary skills. Workers with specific skills are therefore more important to employers than those with general skills and employers are consequently both less willing and able to replace them with temporary workers. Consistent with this argument, workers with more general skills are more supportive of employment protection than those with specific skills: “employees who perform tasks that are easy to monitor and do not require specific skills demand more job security regulations” (Emmenegger, 2009: 424).

Moreover, for employers to hire temporary workers instead of regular workers, the former need to have a similar educational level as regular workers. Where skills are general and regular workers have similar educational profile as temporary workers, employers will be most able to replace regular workers by temporary workers. Their ability to do so may also depend on the degree of wage coordination in the economy, which grants workers and their representatives some say in how internal labour markets are organised. Coordination is important because in highly coordinated economies, unions are better able to segment temporary and regular work, so that insiders and unions should be less concerned about a growing unregulated temporary work sector.

To sum up, I expect regular workers to feel more replaceable where skills are general and similar between regular and temporary employees, and wage coordination is low. Where replaceability is high, temporary and permanent workers may have overlapping interests as regulation of the temporary work generates externalities that affect permanent workers. The degree to which interests overlap in turn determines the politics of temporary work regulation. Where their interests overlap, temporary workers are able to benefit from the greater political strength of permanent workers.

2.2. The determinants of replaceability

The concept of replaceability is particularly difficult to operationalise. The 2005 work orientation package of the International Social Survey Programme (ISSP, 2005) provides, to my knowledge, the most faithful representation of the concept of

replaceability. More specifically, variable v56 codes respondents' answers to the question "how easy or difficult it is for firms to replace you" and covers 43,440 respondents, including most Western European countries. As shown in Table 6, French respondents have the highest share (25%) of those that say it is "very easy" to replace them followed by Ireland, Spain and Italy, whereas East Germany and Denmark have the lowest degree of replaceability. Considering the ratio of the percentage of respondents that say it is "very easy" to replace them by those that say that it is "very difficult" yields a similarly high fear of replacement in France (see Table 6).

Table 6: Perceived ease with which workers feel that firms can replace them

Country	% Respondents that say "very easy"	% respondents that say "very easy" divided by those that say "very difficult"
France	25	6.25
Ireland	19.1	1.95
Portugal	18.2	2.94
Spain	13.9	1.56
Flanders	12.5	1.51
Finland	12.2	1.53
Great Britain	11.9	1.23
West Germany	11.8	1.76
Sweden	11.5	1.72
Norway	11.1	1.63
Switzerland	11	1.39
East Germany	10.5	2.23
Denmark	10.2	0.99

Source: ISSP 2005, work orientation package, own calculations by cross-tabulation of question on replaceability by country in the sample.

Iversen and Soskice (2001) and Cusack, Iversen and Rehm (2006) have undertaken the most thorough attempt to date to systematically measure the degree of skill specificity of individuals. They assign different degrees of skill specificity to different ISCO occupations in the following ways. Absolute skill specificity of an occupation is highest where: (1) it has the highest number of sub-occupations,³⁴ and; (2) where it has the lowest empirical share in the labour force.³⁵ Using this scheme, each occupation is assigned different degrees of skill specificity.³⁶ Craft workers, plant and machine operators and technicians have the highest absolute skill specificity, while clerks and service workers and market sales workers have the least specific skills.

To investigate the relation between skills and the fear of replaceability, I run a logistic regression using the 2005 ISSP survey. My dependent variable is binary: it is coded 1 if the respondent says it is “very easy for firms to replace them”, and zero otherwise. I control for a number of individual characteristics through the inclusion of dichotomous variables that take the value 1 if the respondent is young (under 25 years old), old (above 50 years old), female, working for the public sector,³⁷ and zero

³⁴ They infer that the workers in an occupation have more specific skills when the occupation is broken down in many sub-occupations.

³⁵ The smaller percentage of the workforce in an occupation makes the skill associated with that occupation harder to re-use should the worker seek another job.

³⁶ See Table A2.3 in the appendix for the skill classifications Table reproduced here from Torben Iversen’s website available at: <http://www.people.fas.harvard.edu/~iversen/SkillSpecificity.htm>

³⁷ The public sector dummy equals 1 when the respondent declares that they are “currently working for the government”

otherwise. My sample consists of eleven European countries³⁸ and I restrict my sample to respondents who are in full-time employment.

In a first step, I test for the effect of belonging to the following occupations: professionals; legislators, senior officials and managers; technicians and associate professionals; plant and machine operators and assemblers; elementary occupations; craft and related trade workers; and agricultural workers. The reference category is composed of clerks and service workers, which are the two occupations with the two lowest indices of absolute skill specificity that also have low levels of skills. I expect workers in occupations with more specific skills to feel less replaceable. For a given degree of skill specificity, employers should also find it harder to replace workers with higher level skills (e.g. legislators and managers). I include fixed effects to control for unobserved heterogeneity and to identify which country has the highest fear of replaceability when controlling for an individual respondent's characteristics.

Column 1 in Table 7 shows the results for this logistic regression with robust standard errors clustered by country. Female and older respondents feel more replaceable, while working in the public sector (negative coefficient) and being a young worker (positive coefficient) has no significant effect. Employees working in professional, technical and legislative or managerial occupations feel less replaceable. This confirms that workers with high and specific skills feel less replaceable than those with low general skills (i.e.: my reference category - workers in service and

³⁸ My sample consists of all EU countries available in the ISSP sample: West Germany, Great Britain, Ireland, Norway, Sweden, Spain, France, Portugal, Denmark, Flanders and Finland.

clerical work). Workers with few specific skills in elementary occupations experience the same replaceability as my reference category. The archetype of the specific skill worker working in craft and related trades feels less replaceable than clerks and service workers. Thus, consistent with my expectations, workers with high and/or specific skills feel less replaceable than those with low and/or general skills.

However, occupations alone do not capture the higher replaceability in France, since the French country dummy (not shown) has the largest value among country dichotomous variables. In the second step, I introduce a number of country level variables: EPL for temporary workers (defined earlier), a measure of wage coordination, and the unemployment rate as percentage of the labour force in each country for the year 2005. My measure of wage coordination, taken from Visser (2009), is a “five point classification of wage setting coordination scores”. The index gives a score of 5 to countries where there is “economy wide bargaining”, 4 where there is a combination of industry and economy wide bargaining, 3 where there is only industry bargaining, 2 where it’s a mix of industry and company level bargaining, and 1 where bargaining is fragmented and mostly at company level.

The results are shown in the second column of Table 7. Consistent with my expectations, respondents in countries with higher wage coordination feel less replaceable, controlling for individual level characteristics. The presence of a high unemployment rate also increases the fear of replaceability. Crucially, a higher protection of temporary workers is associated with a lower fear of replaceability of full-time workers. Thus, permanent and temporary workers may have overlapping

interests to push for higher regulations of temporary work in contexts where permanent workers are replaceable.

In column 3, I include three additional relevant country level variables: the size of the temporary work sector, EPL for regular workers and a proxy for the difference between the educational level of temporary and regular workers. As the ISSP does not include a variable allowing me to identify who temporary workers are, I compute the standard deviation of educational attainment of respondents in each country as a proxy for the differences in educational attainments between temporary and permanent workers. The higher the standard deviation the more I expect temporary and regular workers to have different educational attainments.

My results suggest that a larger temporary work sector increases the fear of replaceability, while higher protection of regular workers reduces the fear of replaceability. Consistent with my argument that differences in the educational backgrounds of temporary and permanent workers should matter, a larger standard deviation in the educational attainment of respondents is associated with a lower fear of replacement. In other words, where differences in educational attainments between respondents are larger, respondents on average have lower fears of replacement.

Table 7: The determinants of replaceability across Europe

Columns	(1)	(2)	(3)
Reference: clerks and service workers			
Professionals	-0.55698*** (0.153)	-0.55698*** (0.153)	-0.55698*** (0.153)
Technical / associate professionals	-0.57816*** (0.149)	-0.57816*** (0.149)	-0.57816*** (0.149)
Legislators, senior officials/managers	-0.99378*** (0.283)	-0.99378*** (0.283)	-0.99378*** (0.283)
Agriculture	-0.35512 (0.437)	-0.35512 (0.437)	-0.35512 (0.437)
Craft and related trade workers	-0.46438*** (0.174)	-0.46438*** (0.174)	-0.46438*** (0.174)
Plant/machine operators/assemblers	0.15947 (0.145)	0.15947 (0.145)	0.15947 (0.145)
Elementary occupations	0.15476 (0.159)	0.15476 (0.159)	0.15476 (0.159)
Female respondent (dummy 0, 1)	0.31059* (0.181)	0.31059* (0.181)	0.31059* (0.181)
Young respondent (16-25 years old)	0.47330 (0.354)	0.47330 (0.354)	0.47330 (0.354)
Old respondent (>50years)	0.36940*** (0.098)	0.36940*** (0.098)	0.36940*** (0.098)
Public sector (government or public company)	-0.06423 (0.087)	-0.06423 (0.087)	-0.06423 (0.087)
National level variable			
Wage coordination index		-0.21901*** (0.026)	-0.22742*** (0.016)
Unemployment rate		0.27236*** (0.015)	0.21035*** (0.014)
EPL temporary workers		-0.55514*** (0.046)	-0.07209*** (0.022)
Temporary workers (% of total dependent employees)			0.01816*** (0.002)
Standard deviation education years			-0.04386*** (0.003)
EPL regular workers			-0.10508*** (0.025)
Constant	-2.40318***	-2.40318***	-1.669493
Observations	4,167	4,167	4,167
Log pseudo-likelihood	-1406.19	-1406.19	-1406.19
Pseudo R2	0.0643	0.0643	0.0643
Method	Logistic regression (clustered standard errors)		

Note: Robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. The dependent variable is the share of respondents that say it is very easy for firms to replace them (coded 1, and 0 otherwise).

2.3. Determinants of EPL for temporary workers across Europe

I expect the tightening of EPL for temporary workers to be most likely where replaceability is high because it increases the degree of overlap between the interests of permanent and temporary workers. Interest overlap in turn affects the incentives of all political parties to regulate temporary work. However, this does not mean partisanship becomes irrelevant. Left political parties are much more responsive to the interests of their key electoral constituents: insiders. Where insiders in permanent employment share the interests of temporary workers to push for greater regulation of the sector, the left is therefore comparatively more likely to tighten temporary work regulations than conservatives.

Replaceability is highest when workers' skills are general, wage coordination is low and when educational attainment between temporary and permanent workers is most similar. Thus, tightening of EPL for temporary workers will not happen where coordination is high and skills are specific (e.g. Germany), where the temporary work sector is small (UK) or where temporary workers have very different skills to regular workers (e.g. Spain). France is the only country where all conditions were present which created a comparatively higher degree of overlap between the interests of permanent and temporary workers in France. In turn, this explains why left-wing parties tightened EPL for temporary workers much more in France than elsewhere. To test my argument more systematically, I carry out a large N regression analysis of the determinants of EPL for temporary workers in the rest of this section, while the next section looks at France specifically.

Three methodological challenges arise. First, data on workers' perceived ease of replacement is only available in 2005 and for 13 EU countries (see Table 6), which makes any systematic large N investigation particularly challenging. Second, the level of the OECD index for EPL of temporary workers changes very little over time: for the EU15, there were only 20 cases of reductions and five cases of increases in EPL of temporary workers between 1985 and 2007. Third, I have shown that replaceability is affected by EPL of temporary workers, hence analysing how EPL of temporary workers is influenced by replaceability suffers from severe endogeneity problems.

To address these limitations I test my argument by looking at how variables which affect replaceability in turn determine changes in EPL for temporary workers.³⁹ Investigating changes in EPL for temporary workers over time means I cannot directly test the impact of replaceability but this has the advantage of bypassing the problem of endogeneity. Given how little the OECD EPL of temporary work changes, my empirical strategy relies on a different dataset for my dependent variable: the Fondazione Rodolfo de Benedetti database (FRDB, 2007). This database has the advantage that it is much more refined in its inclusion of different reforms of temporary work, that it identifies which type of temporary work is affected by the reform, and that it starts as early as 1980. I code changes in the flexibility of regulations in three domains of temporary employment to construct the following

³⁹ Note however that running a cross-sectional regression of the level of EPL of temporary workers in 2005 on replaceability and other relevant controls shows that replaceability is indeed positively associated with EPL of temporary workers (see Table A2.5: in appendix).

three dependent variables: temporary agency work, fixed term contracts and introduction of new types of temporary contracts.

Note that a reform measure of temporary work in the FRDB dataset has a “positive sign ... if it increases the flexibility of the system (i.e.: if it makes easier or cheaper for firms to dismiss workers)” and a negative sign if it increases regulations. Each dependent variable is therefore coded 0 where there are no changes in legislation, +1 where a reform increasing flexibility has occurred and -1 where the reform reduced flexibility. I then construct a fourth dependent variable which is the sum of changes in the latter three domains of temporary employment in a given year and is therefore scaled from -3 to +3.

My sample covers the period of 1980-2007 for 14 EU countries. I test the impact of variables that determine individuals’ fear of replaceability, as shown in section 2.2: EPL of regular workers and the size of temporary work (both lagged once). More importantly, I include a measure of wage coordination as discussed earlier, which I recode for simplicity into a dichotomous variable that takes value 1 where wage coordination is high (i.e.: when the index is 3, 4 or 5), and zero otherwise. For partisanship, I create a dichotomous variable that takes value 1 if the left controls more than 50% of cabinet shares and zero otherwise (Armingeon *et al.*, 2011).

There are no accepted measures of national skill specificity for which there is data across time and countries. However, to the extent that the degree of skill specificity of an economy overlaps strongly with the degree of economic coordination

of each type of capitalism (Hall and Soskice, 2001), wage coordination is an appropriate proxy and indeed would have risked being collinear with skill specificity.

Throughout, I control for socio-economic pressures (OECD statistics) such as unemployment (lagged and expressed as a percentage of the labour force) and trade openness (lagged and defined as exports plus imports as a share of GDP). I run an ordered logistic regression with robust standard errors clustered by country. Country fixed effects are included to account for unobserved country heterogeneity in my sample. I also include a linear, squared and cubic trend, which has been shown to perform better than most alternatives to control for temporal dynamics (Carter and Signorino, 2010).

The results are presented in Table 9. In line with my expectations, high coordination increases the likelihood of governments passing flexibilisation reforms, and low coordination reduces the probability of tightening regulations for all three dependent variables (columns 1 to 3). Higher overall EPL and higher unemployment also makes it more likely that governments flexibilise temporary agency work, consistent with the argument that more rigid labour markets that have higher unemployment incentivise governments to flexibilise at the margin (column 1). However, while unemployment also increases the probability to flexibilise fixed-term contracts and new contracts, overall EPL has no statistically significant effect on new contracts or on fixed term contracts (column 2 and 3).

A larger temporary work sector increases the probability of tightening regulations on fixed-term and temporary agency contracts where no country effects are

included (not shown here), but the effect becomes insignificant when country effects are included. Interestingly greater trade openness has no effect on changing temporary work regulations (column 3). Lastly, the left has no statistically significant independent effect (columns 1 to 3) consistent with my argument that the left only has an incentive to regulate temporary work where permanent workers feel replaceable, and hence have overlapping interests with temporary workers.

In columns 4 and 5, I investigate the determinants of my fourth dependent variable, total changes in EPL for temporary work, which is a sum of changes in my three dimension specific dependent variables. A rigid overall EPL and coordination increases the likelihood of introducing reforms that deregulate temporary work. To investigate whether the left has a different effect in high and low coordination countries, I interact coordination and left control of the government in column 5.

Table 8 shows the marginal effect of the left at different levels of coordination. In both low and high coordination settings left-wing governments are more likely to tighten regulations than the right, and less likely to deregulate temporary work than the right. The left is much more likely to deregulate - and much less likely to re-regulate - the temporary work sector in high coordination countries.

Table 8: The effect of the left conditional on coordination

Party	Coordination	Deregulating	Re-regulating
Right	Low	0.056***	0.128***
Left	Low	0.006	0.379***
Right	High	0.115***	0.059***
Left	High	0.108***	0.064***

Table 9: Determinants of changes in temporary work regulations in Europe

Column	(1)	(2)	(3)	(4)	(5)
Dependent variable	Temporary work	Fixed term contracts	New contracts	Sum change in temporary work fixed term contracts and new contracts	
Coordination Dummy <i>(0 low coordination, 1 high coordination)</i>	1.13356* (0.661)	1.15475*** (0.386)	15.84202*** (0.754)	1.31708*** (0.375)	1.05191*** (0.313)
Left Power <i>(1 if left controls > 50% of cabinet seats)</i>	0.03174 (0.968)	-0.41369 (0.390)	-0.35977 (0.636)	-0.54269 (0.460)	-2.35864*** (0.783)
Strictness of employment protection <i>(overall, lagged once)</i>	3.69201*** (0.922)	0.57620 (0.579)	-0.42700 (0.645)	1.36507** (0.659)	1.39009** (0.674)
Share of temporary employment <i>(% dependent employment, lagged once)</i>	-0.03951 (0.088)	-0.13637 (0.099)	-0.00527 (0.217)	-0.06649 (0.102)	-0.07715 (0.094)
Rate of Unemployment <i>(% of Civilian Labour Force, lagged once)</i>	0.35190** (0.146)	0.21170* (0.124)	0.20869** (0.097)	0.26694*** (0.092)	0.26973*** (0.074)
Total Trade <i>(Trade-to-GDP-ratio, lagged once)</i>	-0.02588 (0.031)	0.01377 (0.028)	-0.13921 (0.087)	-0.01233 (0.023)	-0.01052 (0.022)
Coordination * Leftpower					2.25386** (0.948)
Constant cut1	2.27250	2.98431	-21.18828***	0.14138	0.09893
Constant cut2	11.29549**	8.77471**	32.97417***	2.78725	2.78426
Constant cut3				8.10290**	8.26309**
Constant cut4				9.47446***	9.63703***
Constant cut5				11.22124***	11.38235***
Observations	269	269	269	269	269
Fixed effects (i)	Yes	Yes	Yes	Yes	Yes
Cubic trend (ii)	Yes	Yes	Yes	Yes	Yes
Log pseudo-likelihood	-72.72	-130.05	-39.76	-180.33	-177.62
Pseudo R-squared	0.25	0.12	0.31	0.12	0.13

Source: Dependent variables coded using the FRDB database. Note: All dependent variables are scaled following the FRDB convention, that is increases in the dependent variable refer to reforms that introduce more flexibility (i.e.: reduce regulations and/or protection of temporary work). Ordinal logistic regression with robust standard errors (clustered by country) in parentheses; *** p<0.01, ** p<0.05, * p<0.1. (i) Fixed Effects not shown; (ii) Cubic trend refers to the inclusion of a trend, a squared trend and a cubic trend as recommended by Carter and Signorino (2010).

Stability of results and robustness checks

A number of robustness checks and alternative specifications were tested to investigate whether this altered the results in Table 9. First, running a regression with an alternative estimation method (xtreg with robust clustered standard errors and time as well country fixed effects) on the same data yielded the same results (see Table A2.4 in the appendix).

Second, testing the same model using EPL for temporary workers as my dependent variables also confirms my findings. A cross-sectional model is presented in Table A2.5 in the appendix. Note also that running a cross-sectional regression of the level of EPL of temporary workers in 2005 on replaceability and other relevant controls shows that replaceability is indeed positively associated with EPL of temporary workers. In Table A2.6 in the appendix, I test my claims using the first difference of EPL of temporary workers as my dependent variable, which again shows that coordination is positively associated with deregulation, and vice-versa (see Table A2.7 in the appendix calculating the marginal effects).

Third, the results from Table 8 remain unchanged when excluding the cubic time controls (see Table A2.8 in appendix) or the country fixed effects (see Table A2.9 for the results without fixed effects and Table A2.10 in appendix for the marginal calculation). Fourth, as it could be argued that openness and unemployment take time to affect the decision of governments to deregulate, I include the 3 years moving average transformation of these variables in my regression. Table A2.11 in the appendix shows that my results for coordination and the left are the same.

Fifth, the decision of governments to deregulate the temporary work sector could be influenced by the strength of unions. To examine this possibility I tested the effect of three different measures of union strength in Table A2.12 in appendix: union density, bargaining coverage and union centralisation (see Table A3.3 in appendix for definitions). Union density has no effect, while both higher bargaining coverage and more centralised unions reduce the probability of deregulation.

I also checked whether my results are unchanged when alternative measures of coordination are used. Table A2.13 in the appendix reports the results for the Hall and Gingerich (2004) index of coordination and a different scaling of wage coordination (from 1 to 5 instead of the dichotomous 0 to 1 version I used in Table 8). Results using both indices are unchanged. To the extent that my argument is about the control of permanent workers over the use of temporary work by their firm, the presence and influence of work councils might be relevant.

Two measures of work councils by Visser (2009) are used. The status of work councils codes whether there are no work councils (0), whether they are voluntary and non-binding (1) or whether their existence and rights is mandated by law (3). Rights of work councils range from no rights, only information (0) to economic and social rights including codetermination (3). Both measures of work councils' power show that in cases where they have more influence, the probability of temporary work deregulation is higher. A number of alternative measures of the left control of the government are presented in Table A2.15 in the appendix.

In addition, one could argue that a more direct proxy of skill specificity such as the share of craft workers should be used *in lieu* of coordination. There are three reasons why in my view coordination is more appropriate. First, note that coordination is a pre-requisite for a high share of skill specific workers to be present in an economy (Hall and Soskice, 2001). Second, actual skill specificity is notoriously difficult to properly measure, especially in a cross-national setting, where the same occupation such as craft workers might not have similar levels of skill specificity. Measurement problems are further compounded by the fact that the degree of skill specificity of an occupation may also change across time, so that a given share of workers in an occupation might suggest a different level of skill specificity in the economy. Third, I have tested the effect of the share of craft workers (the ultimate specific skills occupation) on temporary work reforms and the results are consistent with my expectation (see table A2.22 in appendix in appendix A2.5).

The lack of effect of openness on government deregulation is surprising, so I tested for three alternative measures: (1) imports, (2) exports, and (3) total trade, with emerging and developing market economies (see Table A3.3 in appendix for definitions). Exports and total trade with this subset of economies are positively associated with temporary work deregulation (see Table A2.14 in appendix). Lastly, I checked whether the results are stable to the exclusion of any one country (Jack-knife robustness check) in Table A2.16 and carried out a stepwise inclusion of my variables to investigate whether the specification was sensitive to any one variable (Table A2.17 in appendix). The results were also unchanged.

Overall, these findings are consistent with the argument that factors which increase replaceability make permanent workers share the interests of temporary workers for a higher level of EPL of temporary work. This allows temporary workers to benefit from the greater political strength of permanent workers and makes it more likely that governments tighten regulations of temporary work. In the next section, I test my argument on France, which allows me to substantiate causality and to demonstrate that my explanation does indeed solve the French puzzle.

3. The Left and temporary work regulations in France

Temporary work has been a major concern of policy makers in France since the late 1970s. There has been a tremendous rise in the share of temporary employment in the French economy since 1983 from under 4% to more than 12% since the end of the 1990s. Due to high replaceability in France, the interests of permanent and temporary workers overlap, and the aim of the left has consistently been to increase the cost of temporary work and to limit the number of valid cases where a company can hire temporary workers.

3.1. Why is replaceability higher in France?

Table 6 showed that the share of respondents that say it is very easy for the firm to replace them was the highest in France. I have argued and shown using regression analysis that replaceability can be expected to be higher in countries where

wage coordination is low, skills are more general, and where temporary workers and regular workers have more similar educational backgrounds.

Consistent with my expectations, countries which have a low degree of replaceability such as Germany, Denmark and Sweden (see Table 5) have high wage coordination scores. Denmark scored between 3 and 5 in the 1980s, 3 in the 1990s and between 3 and 4 in the 2000s. Similarly, Sweden scored between 3 and 5 throughout the 1980s and between 3 and 4 in the 1990s. Germany scored 4 throughout the period under consideration. By contrast, France which had the highest level of replaceability scored 2 throughout most of the period under consideration.

A second reason for higher replaceability in France lies with the nature of workers' skills. Two aspects are particularly important. The first concerns the specificity of skills. It is notoriously difficult to measure the degree of specificity of skills, and even harder to compare skill specificity across countries. With this caveat in mind, the weight of the evidence does suggest that the French labour force has general skills, and in any event, has much more general skills than typically coordinated market economies like Germany and Sweden. French workers' skills were particularly low and general in the 1980s when the left in France tightened regulations surrounding temporary work. Hancké (2001: 308) argues that there was a large pool of low and semi-skilled workers carrying out very narrow tasks in the 1980s. For instance, 60% of the workforce was low or semi-skilled in 1982. The general nature of skills in turn stems partly from the education system. In contrast to Germany, French

workers mostly have general skills such as “mathematics and languages” which allow them to carry out administrative and quality control tasks (Hancké, 2001: 324).

Four additional indicators can further substantiate the claim that France has more general skills. A first indicator is the amount of company training that workers receive. Company training is a good indication of how specific workers’ skills are since employees acquire specific skills mostly through on-the-job training (Busemeyer and Trampusch, 2012). In 2001, 67% of French employees declared receiving no employer training in the past 5 years, compared with 44.5% for Germany and 34.2% in Sweden. Moreover, this represented a 5 percentage point increase from 1996 where 61.7% declared receiving no training (Gallie and Paugam, 2002: 82).

Second, over time the occupational structure in France has made replaceability more of a problem. The share of manual workers (*ouvrier*) has been falling from 30.2% to 22.9% in the period 1982-2006, which was mostly driven by a fall in the share of unskilled manual workers. In contrast, the same period witnessed the rise of the share of employees (*employés*) from 24.7% to 29.3%, mostly driven by the increase in the share of unskilled employees.⁴⁰ Unskilled employees include clerks and service workers which are in occupations requiring much less specific skills⁴¹ than

⁴⁰ INSEE, employment study. More details on the different categories can be found at: http://www.insee.fr/fr/methodes/default.asp?page=nomenclatures/pcs2003/liste_n1.htm; The data can be accessed at: http://www.insee.fr/fr/themes/detail.asp?ref_id=ir-martra10&page=irweb/martra10/dd/martra10_paq2.htm

⁴¹ See skill specificity scores of different occupations developed by Iversen and Soskice (2001) and Cusack, Iversen, and Rehm (2006), reproduced in Table A2.3 in the appendix.

occupations such as craft workers which I have shown to feel less replaceable in the previous section.

The share of the workforce carrying out repetitive tasks represent a third metric for how specific skills are. Variable q20_a of the third (2000) European Working Conditions Survey asks respondents whether their job involves repetitive tasks of less than 1 minute.⁴² Between 20% and 22% of respondents in Denmark, Austria, Italy said yes, compared with 30.16% in France. Fourth, the same survey reveals the share of the workforce carrying out complex tasks, which is also a good indicator of how replaceable a worker can be. The share of respondents carrying out complex tasks was 76.54% in Austria, 67.2% in Denmark, and 65% in Germany compared to 50.8% in France.

In addition to wage coordination and the degree of skill specificity, the gap in educational attainment between permanent and temporary workers is also a condition of the extent to which employers are able to substitute regular workers by temporary workers. The share of an age group that completed secondary education increased tremendously in France and reached 75% in 1995 (Hancké, 2001: 322). Using the fourth wave of the European Social Survey (ESS, 2008), Table 10 shows that France has a very high share of temporary workers who have completed upper secondary education, indeed it is one of the highest in the EU.⁴³ It is also the only country along

⁴² I cross-tabulate the share of respondents that carry out repetitive task by country (source of EWCS available at: <http://www.eurofound.europa.eu/ewco/surveys/index.htm>).

⁴³ For reasons of space, I only report in the body of the paper the numbers for France in Table 10, the numbers for other EU countries are available in Table A2.18 in the appendix.

with Belgium where the share of temporary workers with upper secondary education is higher than for permanent workers.

To sum up, France is the only country that has low wage coordination, general skills and a high share of temporary workers with upper secondary education. Although the UK and Ireland also have general skills and a small educational gap between temporary and regular workers, permanent workers are not well-protected, thereby giving little incentives to employers to substitute permanent with temporary workers. Although Germany and Austria have well-protected permanent workers, high wage coordination and more specific skills hinder employers' ability to replace permanent by temporary workers. Lastly, although Spain evolves in a similar type of Capitalism as France, and temporary work has also expanded fast there, the share of temporary workers with only upper secondary education was much lower than in France.⁴⁴

3.2. Composition and political preferences of temporary and permanent workers

To investigate the implications of replaceability, I now analyse the demographic composition of temporary and permanent workers in France, their degree of replaceability, and their political preferences.

⁴⁴ The share of temporary workers that have completed only upper secondary education was 17.6% in Spain, compared to 48.4% in France (See Table A2.18 in appendix).

Fixed-term contracts are particularly concentrated in the service sector whereas interim contracts are mostly found in industry. In 2002, 12% of workers in personal care, education and health were on fixed-term contracts, about 5% in the food industry, but less than 3% in the car industry (Kornig and Michon, 2010: 54). By contrast, 8.1% of the workers in the construction sector and 6.9% of those in the industrial sector were interim workers, compared to 1.7% for the tertiary sector (*ibid*: 49). Men are over-represented in the interim sector but under-represented among fixed-term contracts. In 2008, 69.3% of interim workers but only 38.5% of workers on fixed-term contracts were men (*ibid*: 51). Interim workers also tend to have lower skills: 38.4% were unskilled manual workers, 39.4% skilled workers, compared to only 13.2% working as employees and 9% in management or intermediary professions (*ibid*: 8).

The low level of skills of temporary workers is also reflected when considering their educational background. In 2007, among those that finished their education less than 4 years ago, 31% were in temporary contracts, 54% in private permanent contracts and 11% in public permanent contracts. For those that had not completed a secondary school degree, 45% were in temporary contracts, compared to 22% for those with university education. Even when considering respondents that finished their education more than 11 years ago, 10% of those with no secondary education were on temporary contracts compared to only 4% of those with university education (Kornig and Michon, 2010: 51).

Temporary work is also particularly concentrated among younger workers. In 2008, 26.4% of those within the 15-24 age groups were on fixed-term contracts and

6.6% were in interim work. By contrast, the respective numbers for the 25-49 age groups were 7.5% and 2.1% (*ibid*: 51). However, transitioning from temporary to permanent employment is slow. In 2003 only 25% of those that were initially on a fixed-term contract were on a permanent contract one year later, and only 17.3% of those in interim contracts had managed to get a permanent contract one year later (*ibid*: 57).

Immigrants are also more likely to be employed under temporary contracts. In 2009, 11.4% of newly arrived migrants in France worked for interim agencies and 26.1% had a fixed-term contract (ELIPA, 2010). This prevalence of temporary work among immigrants extends well beyond the first year of arrival. In 1999, for the 18-40 age group, 7% of male immigrants that had arrived when they were older than 10 years old were interim workers and 11.5% were in fixed-term contracts. By contrast, for the same age group only 3.8% of male natives were in interim work and 10% on fixed-term contracts. For those born in France but from parents born in a foreign country, 5.2% of male respondents were in interim work and 11.6% in fixed-term contracts. Within the immigrant population, more than one third of males that emigrated from sub-Saharan Africa were in precarious contracts compared to 19% for natives (Meurs, 2006: 780). Controlling for age, education, and marital status, male immigrants were still three times more likely to be in a precarious contract than natives (*ibid*: 781).

In the last 2007 French election, more than 60% of temporary workers voted for left-wing parties (see Table 10) and nearly twice as many temporary workers as

regular workers voted for the extreme left.⁴⁵ The tightening of temporary work regulations that the left has undertaken in the last three decades was therefore beneficial to these workers. This involved provisions for equal pay between regular and temporary workers, ‘end of contracts bonuses’ to compensate for the precarious nature of temporary work, as well as better access to training and paid holidays. Legal restrictions on the use of temporary workers can also be beneficial to them. For instance, thanks to the regulations in place in France, the *Court de cassation* ruled in 2004 that certain agency workers employed by automobile companies should be transferred to permanent contracts (Math, 2004).

However, temporary workers alone cannot push for better work conditions. These more stringent regulations of temporary work were also in line with many of the left’s constituents’ concerns for replaceability. With respect to occupations, 55% of technicians, 58% of machine operators and a staggering 62% of workers in elementary occupations voted for left-wing parties in the first round of 2007 (see Table 10). Those occupations were characterised by a high implementation of temporary work: 28% of respondents in elementary occupations, and nearly 17% of those in craft work reported being on limited duration contracts. As many as 41% of respondents in elementary occupations and 33% working as plant and machine operators declared it was “very easy” for the firm to replace them (see Table 10). Key constituents of left-wing parties in France are therefore adversely affected by temporary work and feel very replaceable.

⁴⁵ Detailed analyses of temporary workers’ voting records for different political parties in the 2007 elections are presented in Table A2.19 in the appendix.

3.3. The evolution of temporary work regulation in France

Since key constituents of the left feel very replaceable, one should expect that the left in France has attempted to regulate the temporary work sector to mitigate and prevent this risk of replaceability of permanent by temporary workers. This section shows this is precisely what has happened since the issue of temporary work was politicised in France.

Temporary agency or interim work was legalised by the right-wing government in a law passed in 1972⁴⁶ and implemented through a government decree in 1973.⁴⁷ While the practice of interim work had *de facto* been tolerated before, this law was meant to promote interim work by providing it with a clearer legal framework. Right-wing policy makers saw this new form of work as positive to fulfil both economic and social functions (Alibert, 1974). At the time of the law, only 1% of the active labour force was in interim work (*ibid*: 13) and the user company did not have to pay the same wage for interim workers as their actual workers (Fossaert, 1981).

Similarly, the first law concerning the *Contrat à Durée Déterminées*, the main type of FTC in France, was passed in March 1979.⁴⁸ As with the 1972 law, the 1979 law was meant to promote this type of employment by reducing the legal uncertainty that employers faced when using these types of contracts (Poulain, 1979; Couturier, 1980; Lyon-Caen, 1980). The *rapporteur* of the national assembly argued that

⁴⁶ 3rd January 1972 Law.

⁴⁷ Decree N73-53.

⁴⁸ Loi du 3 Janvier 1979 relatif au Contrat à Durée Déterminée.

achieving their objective to increase the reliance on FTCs required removing all the apprehensions that employers had felt regarding these contracts before the law (Couturier, 1980: 38). The French employers' association not surprisingly welcomed this law which made it easier and cheaper to hire FTCs (Darcel, 1980).

The 1972 and 1979 laws passed by the right, set in motion the process of replaceability,⁴⁹ which ultimately increased the degree of overlap between the preferences of permanent and temporary workers and motivated the labour movement and the left to tighten regulations of temporary work. Writing in 1981, Robert Fossaert (1981: 509) argued that this growing segment of precarious work would lead to a twofold pressure on wages. These pressures would operate directly through the lower wages that temporary workers received but also indirectly through competition and substitution effects with respect to regular employees. The union movement was already opposed to lowering temporary work regulations at the time because they thought this would bypass collective agreements and regulations on collective dismissals (Lyon-Caen, 1980: 9). Similarly, the detractors of the 1979 law on the left saw the law as promoting the 'précarisation' of employment (Couturier, 1980).

It is in this context that Mitterand, the first socialist president of the fifth republic, was elected on the 21st of May 1981 (EIRR, 1981). In his speech to the national assembly in July 1981, the newly elected Prime Minister Mauroy announced the government's intention to tackle temporary work by introducing "improved

⁴⁹ At the end of the 1979, 35% of newly registered unemployed workers come from ending FTCs (Darcel, 1980: 19).

controls on temporary work agencies and employers recruiting workers on FTCs. Workers employed on a temporary basis will also be given improved rights” (*ibid*: 3). The *Auroux* report which represented the basis for the upcoming legislative activity of the new government attacked the use of “inferior forms of employment” that have been used by employers in the form of agency work or FTCs (EIRR, 1981: 4). The left government identified the fast expansion of temporary work as resulting from companies’ attempts to the avoid costs of permanent employment by using temporary workers (EIRR, 1982: 6).

Three ordinances were issued by the government in 1982 to address the shared concerns of permanent and temporary workers concerning the protection of temporary work. With the 24th February 1982 ordinance, the legislator stated his intention to “avoid that jobs, that should normally be permanent, are undertaken in a permanent fashion by workers holding precarious contracts” (Pradel, 1984: 521). Temporary work was as a result surrounded by a number of conditions and formalities. The new law tightened the set of reasons under which companies could hire FTCs or agency workers.

Specifically, temporary employment could be used for a temporary replacement of a regular worker, to cope with the occurrence of an unexpected and significant increase in economic activity, or to carry out a specific task in pre-authorised sectors (EIRR, 1982; Lyon-Caen, 1983: 10). Maximum duration, authorisation procedures and sanctions for non-compliance with regulation were also tightened (*ibid*). Specifically, the new maximum duration of the mission could no

longer exceed six months, whereas there were no time limits before (EIRR, 1982). The legislator also introduced higher civil sanctions of the employer if they terminated the contract before the end of the agreed duration (Pelissier, 1983).

New rights were also granted to temporary agency workers. The legislation granted, for the first time equal rights in terms of wages⁵⁰ and collective advantages between interim and regular workers in the user company. For FTCs, equality of rights concerned paid holidays, right to training, sick leave and indemnities for accidents. Interim agency workers received an increase in the ‘insecurity bonus’ of up to 15% of their total gross earnings at the end of their mission. FTC workers were for the first time also made eligible to a similar end of contract indemnity equal to 5% (EIRR, 1982; Pelissier, 1983: 20).

In March 1986, the right won the legislative elections with a clear intention to relax restrictions on temporary work (Belier, 1986). The 11th of August ordinance removed restrictions on FTCs and agency work to “give more freedom to companies in human resources management” (Seguin, 1986: 829). The available conditions to employ an FTC were expanded by abandoning the list of cases in which hiring temporary workers is authorised (Savatier, 1987). Further, the administrative authorisation for companies to hire temporary workers was suppressed and the maximum duration of contracts was extended to 24 months (Pelissier, 1987; Seguin, 1986).

⁵⁰ That is the interim worker will get the same wage as someone in a similar post/occupation in the using company.

When Mitterrand won a second term as president in 1988, the left also returned to the government with Michel Rocard as Prime Minister. A bill was presented to the parliament by the left on the 6th December 1990 to place “limitations on the use that employers may make of these forms of employment” and mainly involved re-introducing restrictions on temporary work that had been removed by the 1986 decree: the use of temporary work was limited to only three cases, the maximum duration was shortened back to 12 months, and employers were prevented from hiring temporary workers to cope with increased economic activity. This bill was generally favoured by Socialist MPs but generated “fierce opposition by employers” (EIRR, 1990: 4, 5).

The main employers’ organisation insisted that legislators should let the social partners negotiate on the issue of temporary work. Most of the socialist party wanted the bill to be debated in the parliament directly, but the government nevertheless chose to let the social partners negotiate (EIRR, 1990: 4). The 12th July 1990, a law was passed that incorporated most of the agreement that the social partners had reached. Its objective as stated in its first article was to “claw back the share of precarious jobs by facilitating their transformation into stable employment.”⁵¹ Union representatives were granted the right to evaluate the increase in precarious employment in the annual

⁵¹ Author’s translation from the following quote: “de faire reculer la proportion d’emplois précaires en facilitant leurs transformations en emplois stables” (Blaise, 1991: 11).

negotiation between social partners, both at the sectoral and company level. Sanctions for unlawful use of fixed term and temporary employment were also reinforced.⁵²

The 1990 law therefore represented a return to a more strict limitation of the cases where a company could use precarious contracts (Blaise, 1991). The maximum duration was fixed at 18 months compared to 24 months in the 1986 law (EIRR, 1990: 13, 14). The principle of equal pay between temporary and permanent workers was also reinforced by extending provisions that existed to interim workers to fixed term contracts.⁵³

From 1993 to 1997, the right controlled the government, with no major changes in the legislation of temporary work. In June 1997, the left won the legislative elections bringing Lionel Jospin to the post of Prime Minister. A social modernisation bill was approved by parliament in 2001. Articles 122-124 of this law entailed a number of initiatives concerning the fight against precarious work, aimed at restricting temporary contracts. The exceptionality of temporary work was re-affirmed (Roy-Loustaunau, 2002).⁵⁴ As before, the aim of the law was to prevent companies from replacing permanent workers by temporary workers for work to be carried out that is in fact of a permanent nature. The law also further harmonised the ‘instability

⁵² Regarding the unlawful use of fixed term and temporary contracts by a company, any infractions concerning the duration or number of renewals of contracts, and the minimum waiting period for using consecutive a temporary contract on the same post.

⁵³ With the new 1990 law, the rate is now 6% for fixed term contracts and 10% for interim workers (Blaise, 1991).

⁵⁴ For instance: “Fixed term contracts, whatever their motives cannot aim or result in the permanent placement of an employee linked to a normal and permanent activity of the company” (author’s own translation, from article L122-1 of the labour code– see : Raveyre, 2001).

indemnity' of agency and fixed term contract workers by setting the indemnity for both at 10% of their total gross income of the worker. Last but not least, sanctions and controls were further reinforced (*ibid*: 311).

In sum, the left has consistently tightened the regulations of temporary work whereas the right has supported the deregulation of the sector. Thus, temporary workers in France have benefited from their shared interests with politically more powerful permanent workers. The main employer organisation in France⁵⁵ was strongly opposed to further restrictions on temporary work in both in 1990 and 2001, and was supportive of the right's deregulation in 1986.

By contrast, unions have throughout the period been concerned about replaceability. For instance, the two biggest unions in France, the CGT and CFDT,⁵⁶ have been systematically opposed to temporary work and calling for more regulations to prevent replaceability.⁵⁷ Unions have also increased their presence across the main temporary work agencies such as Randstadt and have created novel organisational structures within their confederations such as the *CFDT Services-Interim* which aims to represent temporary workers.⁵⁸

⁵⁵ The *Mouvement des Entreprises de France* (MEDEF). Interviews with MEDEF representatives carried out in September 2011 further confirmed that their preference is for reducing the level of EPL.

⁵⁶ CGT stands for "Confédération Générale du Travail" and "CFDT for Confédération Française Démocratique du Travail".

⁵⁷ Interviews with CFDT and CGT representatives carried out in July and September 2011.

⁵⁸ Interviews with CFDT Services Federation and CGT interim and temporary work Federations carried out in July and September 2011.

Table 10: Occupations, replacement, votes, contracts and education in France

<i>By occupation</i>	Employment status (1)			% respondents (2)		% respondents voted left in 2007 presidential election (3)
	Unlimited	Limited	No contract	Not Very easy	Very easy	
	(as % of total workforce)					
Legislators, senior officials and managers	83.59	4.96	11.44	78.72	21.28	22.6
Professionals	84.16	10.96	4.87	78.1	21.9	56.2
Technicians and associate professionals	83.6	11.86	4.54	79.55	20.45	55.6
Clerks	73.89	16.85	9.26	69.4	30.6	51.78
Service workers and shop and market sales workers	69.26	20.48	10.26	66.56	33.44	45.61
Craft and related trade workers	74.89	16.39	8.73	87.62	12.38	44.77
Plant and machine operators and assemblers	78.97	11.87	9.16	66.39	33.61	58.13
Elementary occupations	58.31	28.9	12.79	58.02	41.98	62.93
<i>For all occupations</i>						
Voted in 2007 for the left (4)	53.05	61.44	45.41			
Only upper secondary education completed (5)	42.3	48.4	n.a.			

Notes and sources (1) to (5) can be found in Table A2.21 in the appendix.

Conclusion

In the last three decades, temporary work has been on the rise across Europe both in the form of temporary agency work and fixed-term contracts. The expansion of temporary work is partly the result of companies attempting to bypass what they see as rigid regulations of permanent contracts by hiring temporary workers. In many cases, it is also the result of government policy choices to create flexibility at the margin of the core employment relation, while leaving the status of insiders unaffected. The protection of temporary workers represents a particular challenge for governments because these workers have little political power to promote their interests while temporary work has wide-ranging implications for inequality. Indeed, temporary workers are on average less well-off than permanent workers in terms of pay, access to training, job satisfaction and job security.

Whereas most countries have reduced temporary work regulations, France has moved in the opposite direction with left-wing governments tightening regulations on a number of occasions. All the conditions that the literature identifies to explain deregulation at the margin in other countries (high socio-economic pressures and insulated insiders) are also present in France. I argue that solving the puzzle of French temporary work regulations requires challenging an implicit assumption of most of the literature, namely, that permanent workers are unaffected at worst and at best even benefit from deregulation at the margin.

Specifically, there are good theoretical reasons and strong empirical support for the claim that some permanent workers are adversely affected through the ability of employers to replace regular by temporary workers. Workers in occupations characterised by more general skills and in countries that have low wage coordination and a large temporary work sector feel the most replaceable. Where replaceability is high, permanent and temporary workers have increasingly overlapping preferences for higher protection of the temporary work sector.

As a result, governments, especially when controlled by left-wing parties, are more likely to tighten temporary work regulations in low coordination settings with a large temporary work sector but more likely to reduce temporary work regulations in countries with high wage coordination. Thus, the tightening of EPL for temporary workers will not happen where coordination is high and skills are specific (e.g. Germany), where the temporary work sector is small (UK) or where temporary workers have very different skills to regular workers (e.g. Spain).

By contrast, where a sufficiently large number of permanent workers feel replaceable, as in France, they share temporary workers' preferences for increased protection of temporary work. As a result, the politics of temporary work regulations are significantly altered and the gains from tightening temporary work regulations may outweigh the costs of not deregulating. Consistent with my argument, I have shown that the high share of replaceable workers in France is the result of three factors: general skills, low wage coordination and similar educational background between permanent and temporary workers.

Faced with stringent regulations of permanent employment, French employers are both willing and able to replace permanent by temporary workers. Both temporary workers and permanent workers that feel most replaceable are important constituents of France's left-wing parties. French unions have also been strongly opposed to the deregulation of temporary work. As a result, the left has systematically tightened temporary work regulations (1982, 1990, and 2001). The right is in principle more favourable to deregulation, which is also supported by employers, and has indeed deregulated temporary work in 1986.

My findings have implications for the dynamics of EPL of temporary work across Europe but also for other policy domains in France. Indeed, the political implications of this higher replaceability of French workers have also manifested in other domains of the French welfare state. In 2007, total public social expenditures as a share of GDP in France was the highest of Western Europe (OECD statistics) and its statutory minimum wage one of the highest.⁵⁹

My findings have implications for the dynamics of EPL of temporary work across Europe. Specifically, they suggest that the trend towards the deregulation of temporary work across the EU may become unstable and be reversed. If replaceability starts affecting insiders in permanent employment, temporary workers may become able to benefit from the greater political strength of core constituents of the left. There is some evidence that this may have started happening in other European countries that share the French combination of protected insiders but do not have sufficiently

⁵⁹ By 2007 it had reached more than 60% of the median wage (Champsaur *et al.*, 2009: 45).

high coordination to avoid substitution between workers. Spain is a case in point: after nearly two decades of deregulation, the unions started promoting temporary work regulations by the end of the 1990s, and the government passed a law in 2006 (Law 43/2006) aiming to promote permanent contracts and restrict the expansion of temporary work (Villarejo, 2008).

Lastly, two broader implications emerge from this paper. First, highly coordinated market economies may paradoxically lead to more durable divides between workers, since permanent workers are more insulated from the pressure of a growing temporary work sector. Crucially, this higher protection of insiders does not stem from higher *de jure* EPL but rather from the more specific skills that insiders possess and from a higher degree of wage coordination.

Second, the argument and evidence presented in this paper challenges the premise of much of the insider-outsider literature where reductions in working conditions and benefit eligibility of outsiders has no impact on insiders. This may question the relevance of dualism as an analytical category. Further research should therefore investigate whether and why more coordinated market economies may be more dualised, the determinants of the extent to which the interests of insiders and outsiders overlap, and the ensuing politics of reforms that affect outsiders in other policy domains.

Paper 3

III: THE ADVERSE EFFECTS OF DUALISATION, RECOMMODIFICATION, AND NON-INCLUSIVE COORDINATION ON WAGE INEQUALITY

Abstract

What explains wage inequality in countries that were once seen as fairly egalitarian? Research on inequality in comparative political economy stresses the role of welfare state spending and economic coordination in reducing inequality. However, the pattern of gross earnings inequality between median and low income workers in Western Europe contradicts this conventional wisdom. Using this measure of inequality, the German coordinated market economy is now more unequal than the UK, a typical liberal market economy, and Denmark, characterised by its social democratic welfare regime, is now more unequal than countries with Bismarckian welfare regimes such as France and Belgium. To solve this puzzle, I argue that non-inclusive economic coordination, recommodifying welfare state policies, and labour market dualisation have increased inequality. I test - and find significant support for - this argument using a large N quantitative analysis of wage inequality in a panel of fifteen Western European countries over the last three decades.

Introduction

One of the most profound changes of the past three decades in the developed world is the significant rise in inequality after its relative decline in the post war years (Kenworthy and Pontusson, 2005). These trends in inequality have motivated important works in economics (Atkinson and Piketty, 2007; Leigh, 2007). Despite common trends in technology, openness and education, there are important cross-national differences in inequality among European political economies.

One should distinguish between wage income, market income and disposable income. Wage or earnings represent the monetary reward for the provision of labour by workers. Market income also includes non-wage market income such as capital or property gains. Deducing taxes and adding benefits result in disposable income inequality (Beramendi and Cusack, 2009: 258). This paper focuses on gross wage or earnings inequality. Earnings are the main determinant of overall income for employed workers. Gross earnings inequality also has a crucial impact on workers' incentive to acquire skills (Blau and Kahn, 1996) and may adversely affect the employment probability of low skill workers (Card and Krueger, 1995; Neumark and Wascher, 1999).

Economic factors alone cannot account for the cross-national diversity of wage inequality. For instance, markets forces alone would predict that inequality between middle and low skilled workers should be lower in the US than in EU countries (Blau and Kahn, 1996: 831). This calls for an institutional and political explanation of cross-national variation in wage inequality. Following the recent research in comparative

political economy undertaken by Iversen (1999), Pontusson *et al.* (2002) and Rueda (2008), I focus on wage inequality between the 5th and bottom 10th gross earnings deciles of full-time dependent employees compiled by the OECD.

When considering gross earnings, there are three reasons to restrict the analysis to full-time employees. First, to the extent that low income part-time workers would by definition be further away from full-time middle income workers, focusing on full-time wages provides a low estimate of the actual underlying degree of inequality. Second, including part-time workers in the analysis of inequality would misconstrue inequality which stems from different pay and inequality, which stems from insufficient work. Third, there is very limited availability of time-series cross-section data for hourly earnings inequality.

Moreover, wage inequality between full-time workers in median and bottom income deciles displays surprising patterns both in cross-national terms and over time. More specifically, the difference between European countries in their ratio of gross earnings of the 5th and the bottom decile of full-time workers presents us with a puzzle. Coordinated Market Economies (CMEs), which were portrayed as an equally efficient - but more egalitarian - type of Capitalism compared to their liberal counterparts (Hall and Soskice, 2001), have experienced particularly steep rises in inequality. Most strikingly, Germany is now more unequal than the UK. Denmark which is characterised by its social democratic welfare regimes (Esping-Andersen, 1990) now has higher levels of inequality at the bottom of the income distribution than Belgium or France.

In this paper I make three arguments to solve this puzzle. First I argue that higher inequality over time is the result of labour market dualisation where an increasingly unprotected temporary employment sector has grown significantly in the last three decades. While a large part of the literature has looked at welfare state and labour market dualisation, no studies - to my knowledge - have carried out a systematic empirical investigation of the effect dualisation has on inequality across countries.

Second, European welfare states have undergone profound reforms, where the emphasis has been to incite the unemployed to take up jobs whether through lower generosity of unemployment benefits or higher employment incentives to accept low income jobs. In other words, higher inequality may be the result of both reductions in decommodifying policies *and* the introduction of recommodifying policies such as employment incentives.

Third, following recent research by Thelen (2012: 142) and Swank *et al.* (2008), I argue that one must distinguish between the degree of coordination of institutions and their degree of inclusiveness or social solidarity. Economic coordination on average enhances the productivity and wage bargaining power of employees. However, one should not conflate “coordinated” with “egalitarian capitalism” (Thelen, 2012: 143). Instead, the degree to which coordination affects workers in different income deciles depends crucially on the inclusiveness of bargaining institutions. As a result, the higher economic coordination and the lower

the inclusiveness, the larger the income gap between median income workers that are coordinated and low income workers that are not.

European countries with more coordinated but less inclusive wage setting institutions should therefore *ceteris paribus* exhibit more inegalitarian outcomes. Coordination is therefore consistent with lower inequality only where unions are strong and encompassing (e.g. Sweden) or where the State intervenes through the regulation of minimum wages (e.g. France). Where economic coordination is high but unions are smaller and there is no minimum wage regulation (e.g. Germany), coordination actually leads to higher inequality.

These three arguments are tested using panel data regression analysis on a sample of Western European countries over the last three decades. The paper is organised as follows. The next section reviews the existing literature on wage inequality and argues it cannot account for the current patterns of inequality in the lower half of income distribution in Europe.

The second section identifies a number of hypotheses concerning the impact on inequality of labour market dualisation, decommodifying and recommodifying welfare state policies and economic coordination in different institutional contexts. In the third section, the data, empirical model and estimation method are discussed. The fourth section presents the results of the empirical analysis. The last section concludes with some implications for further research on the relation between coordination, the welfare state and egalitarianism, and hence between efficiency and equity.

1. Previous literature on the determinants of wage inequality

An important area of the literature in economics (1.1) and comparative political economy has looked at wage inequality (1.2). However, patterns of wage inequality over time and across countries contradict this conventional wisdom (1.3).

1.1. Economic determinants of inequality

Economics has attempted to explain inequality by analysing supply and demand for workers with different levels of skills. The literature generally agrees that a shift in the demand for skilled workers has raised the wage skill premium of skilled workers relative to non-skilled workers (Gottschalk and Smeeding, 1997: 647). One group of authors emphasise the role of technological change (e.g. introduction of computers) in making skilled workers more productive to employers and hence increasing the demand for skilled workers (Acemoglu, 2002; Freeman and Katz, 1995; Blau and Kahn, 1996; Goldin and Katz, 1996). Changes in the structure of employment, not least deindustrialisation, may also have reduced demand for low skill employment (Levy and Murnane, 1992).

Rising trade competition may also have increased the relative demand for skilled workers as well as the supply of less skilled workers in developed countries (Wood, 1994; Freeman, 1995; Burtless, 1995). This argument generally assumes a Heckscher-Ohlin trade model where countries predominantly export goods that use their more abundant factor of production. If skilled workers are more abundant relative to unskilled workers in developed countries, then they will export high skill

products and import low skill goods. The increase in the supply of low skills goods leads to a lower domestic price for these goods. This in turn puts downward pressure on unskilled workers' wages. As trade with developing countries increases, inequality between skilled and unskilled workers in developed countries therefore rises (Wood, 1994: 58-60). To the extent that immigrants are, on average, less educated than natives, increases in immigration may also put further downward pressure on unskilled workers' wages (Borjas *et al.*, 1997: 357; Rueda and Pontusson, 2000: 357).

In sum, trade openness and technological change are seen to increase inequality (Gottschalk and Danziger, 2005; Katz and Autor, 1999; Burtless, 1995; Atkinson, 2003; Gottschalk and Smeeding, 1997; Wood, 1994). However, economic factors alone fail to fully account for existing inequality. For instance, these explanations cannot easily make sense of the fact that inequality has increased even within skills groups (Gottschalk and Smeeding, 1997: 645). In addition, inequality in literacy seems to explain only a small part of the variation in earnings inequality (Freeman and Devroye, 2002; Blau and Kahn, 2002).

Last but not least, while technological change and increased trade has occurred in all EU countries, and could plausibly explain a rise over time of inequality, these factors are less able to explain variation between EU countries at one point in time (Mahler *et al.*, 1999). The cross-national variation in wage inequality therefore requires a political and institutional explanation (Gottschalk and Smeeding, 1997).⁶⁰

⁶⁰ Note that even for changes in inequality within a country over time, institutional change may matter more than other economic factors (see for instance Gordon, 1996 and Fortin and Lemieux, 1997).

1.2. Political and institutional determinants of inequality

Important changes in inequality and the relative inability of economics to make sense of the cross-national diversity have motivated an emerging area of literature from a comparative political economy perspective. I therefore briefly review the political and institutional factors that have been shown to affect inequality.

Political factors

In line with other works in comparative politics that have examined the impact of partisanship on economic outcomes (Hibbs, 1977; 1987; Alt, 1985), the Power Resource approach (Korpi, 2006) stressed the impact of the ideology of the political party in power on the level of inequality. While the left can directly affect household disposable income through redistribution, the mechanism through which partisanship would affect gross earnings inequality is less clear.

One channel through which the left can affect wage distribution is indirect. For instance, the left can decommodify labour more extensively through more generous social benefits and more regulated labour markets, thereby increasing the reservation wage of workers and in turn reducing inequality. This argument is therefore contingent on whether the left does indeed increase welfare state spending. The evidence concerning the impact of the left on the welfare state is mixed. While some studies find that the left increases welfare state spending (Garrett, 1998), other authors contend that partisan differences over the welfare state are fading (Pierson, 2001; Huber *et al.*, 1999). More recent evidence by Rueda (2008) suggests that policies that reduce inequality are themselves undertaken more by left governments.

Another way the left may affect the distribution of gross earnings is by using policies that have a direct effect on wages. This channel is best illustrated by the use of minimum wage regulations that impose a floor on wage settlements (Dolado *et al.*, 1996). The left may also reduce inequality by expanding the size of the public sector which often entails more egalitarian⁶¹ wage settlements (Kahn, 1999). Last but not least, the left may influence private sector wage agreements. Governments can for instance extend collective bargaining agreements to all workers in an economy or change the wage distribution “through arbitration or the imposition of mandatory wage controls” (Wallerstein, 1999: 655).

Besides political parties and welfare state policies, early studies of inequality have focused on the role of unions. While, in principle, unions can raise inequality by increasing the wage premium for union members only, while leaving the wages of non-unionised workers unchanged, empirical evidence suggests that the presence of unions has overall equalising effects. More specifically, unions have been found to mitigate inequality both within and across unionised companies (Freeman, 1993; Freeman, 1980; Freeman, 1982; Swensson, 1989). This finding is consistent with the notion that unions operate in a more democratic fashion than markets do. If the median income is lower than the average income of a unionised worker, lower inequality should be favoured by the majority of unionised workers, and unions can be expected to reduce inequality (Rueda and Pontusson, 2000: 359).

⁶¹ See for instance Katz and Krueger (1991) on the US public sector.

Institutional factors

However, union density may not be an adequate proxy for the number of workers covered by a wage agreement in countries with low union density but high bargaining coverage. This is for instance the case in France, where union density is very low whereas wage bargaining coverage is particularly high as a result of the extension of bargaining agreement by the government. Most empirical tests confirm that a high bargaining coverage mitigates the degree of inequality (Fortin and Lemieux, 1997; Freeman and Katz, 1995; Traxler and Brandl, 2009: for a review of the evidence).

Since Katzenstein (1985; 1987) it is recognised that countries exhibit fundamental differences in the way their institutions are structured and in the way their markets are organised (Soskice, 1990). Differences in these institutions have far reaching implications for the extent of wage inequality across countries. For instance, institutions such as wage bargaining and union centralisation have been shown to have significant negative effects on inequality (Card *et al.*, 2003; Wallerstein, 1999).⁶² Most of the literature finds that centralised wage setting, where “national union confederation and the national employers’ organisation can influence and control wage levels and patterns across the economy” (Aidt and Tzannatos, 2001: 9), reduces inequality more than company level bargaining.

⁶² Though note that bargaining centralisation has been found to be less prominent (Golden and Longredan, 2006) than initially argued by Wallerstein (1999).

Wallerstein (1999: 673-675) identifies three sets of reasons why higher centralisation leads to lower wage inequality. A first reason is that market determined (decentralised) pay agreements may be inefficient in the presence of some strongly unionised industries. In such a context, the unionised sector earns above market clearing wages. This leads to a misallocation of labour, and a sub-optimal aggregate employment level. Centralisation therefore reduces inequality by restoring efficient pricing of different labour inputs.

Second, centralisation may empower certain workers at the expense of others. More specifically, centralisation is likely to empower median income workers. Since these workers have an incentive to reduce inequality in contexts where the mean wage is higher than the median wage, this results in lower inequality (Freeman and Medoff, 1984). Third, higher centralisation may increase the ability of workers to impose norms of fairness on the wage distribution and makes it more likely that low wage unions “demand redistributive measures” (Rueda and Pontusson, 2000: 361). The extent of wage centralisation may also mitigate the impact of falls in unionization rates or growing trade openness on inequality (Oskarsson, 2005; Kenworthy, 2007).

However, institutions may matter beyond the wage setting process. The seminal work on VoC underscored the relation between the type of capitalism and economic outcomes (Hall and Soskice, 2001). More specifically, CMEs were seen as being as efficient as their liberal counterparts while achieving more egalitarian outcomes. CMEs are characterised by higher employment protection, more developed welfare states, stronger and more encompassing unions as well as more coordinating

wage bargaining institutions than LMEs. Seen in this light, they therefore combine all the institutional and political factors that have been shown to reduce inequality. The particular constellation of institutions follows the interests of firms in CMEs. These firms' interests are in turn consistent with the product market strategies that they follow:

“Product market strategies that rely on high levels of industry specific and firm specific skills are likely to create more egalitarian societies than product market strategies based on general skills” (Estevez-Abe *et al.*, 2001: 156, 157).

The link between skill regimes and inequality operates crucially through the impact that skill regimes have on the opportunities of low income workers:

“Countries with well-developed ... vocational training systems provide a stable economic future even to those students who are not academically strong. General education systems, in contrast, offer these students relatively few opportunities for improving their labour market value outside of the school system” (*ibid*).

Rueda and Pontusson (2000) further show how the type of VoC may also mediate the influence of various factors on wage inequality. Their analysis confirms that wage bargaining centralisation reduces inequality but the effect of centralisation is stronger in Social Market Economies (SMEs).⁶³ In addition to affecting the impact of centralisation, the type of capitalism also determines whether partisanship has an effect on inequality. More specifically, they find that left control of government only reduces inequality in LMEs consistent with the notion that governments are more constrained in SMEs (*ibid*: 375-376). Only union density is found to have a consistent (negative) effect on inequality in both LMEs and SMEs. (*ibid*: 379).

⁶³ While they focus on the difference between Social Market Economies (SMEs) and other economies, the overlap between their SME category and CMEs is strong, and the underlying logic similar.

1.3. The puzzle of inequality at the bottom of the income distribution

Table 11 summarises the results of previous studies in comparative political economy that have looked specifically at wage inequality between the 5th and the bottom decile. Iversen (1999), Pontusson *et al* (2002) and Rueda's (2008) results all show a strong and significant negative effect of wage bargaining centralisation on inequality. Minimum wages, higher government employment and union density also reduce wage inequality. Unemployment and corporatism have ambiguous effects with the negative effect being significant only in certain specifications. The coefficient for partisanship,⁶⁴ trade, the size of the female labour force or of private sector services and monetary policy are not statistically significant.

In 2005, European countries exhibited significant cross-national variation in this measure of inequality (Table 12). A number of puzzling features are apparent. Denmark, despite its social democratic welfare regime, has a higher inequality than countries with Bismarckian welfare regime such as Belgium and France (Esping-Andersen, 1990). The Power Resource approach and the welfare state regime literature suggest that Social democratic welfare regimes with a strong labour movement should have lower inequality (Korpi, 2006; Esping-Andersen, 1990). However, Denmark has a higher level of union density than France, Belgium and Norway, so Danish inequality is hard to reconcile with this literature.

⁶⁴ Note, however, that Rueda does find that the control of the government by the left affect variables that reduce inequality ((2008))

Table 11: Summary of determinants of inequality between 5th and bottom deciles

Variables	Iversen (1999)	Pontusson <i>et al.</i> (2002)	Rueda (2008)
Centralisation of wage bargaining	---	---	---
Corporatism			0/-
Left partisanship	0	0	
Union density	0/-	-	
Welfare state generosity			0
Minimum wage			--/-
Monetary policy accommodation	0		
Government employment		---	--/-
Private sector services		0	0
Female Labour force		0	0
Trade from least developed countries		0	0
Total trade	0		
Unemployment	-	0	0/-

Note: ---, --, - negative effect at the 1%, 5% and 10% significance levels; 0 no significant effect. When results differ between specifications, both results are mentioned separated by /.

Source: Iversen (1999), Pontusson *et al.* (2002), Rueda (2008).

Similarly, the higher degree of centralisation in Denmark than in France and Finland is hard to reconcile with the finding in the literature that wage centralisation reduces inequality. Also, one cannot make sense of this higher inequality in Denmark with either Openness which was higher in Belgium, or with the size of its public sector which was higher than in Finland and France.

Even more striking, Germany, the archetype of the Coordinated Market Economy (CME), has a higher inequality than Liberal Market Economies (LMEs)

such Ireland and the UK. The higher degree of coordination generally attributed to Germany is reflected by its higher degree of centralisation. Wage coordination is also – not surprisingly – much higher in Germany than in the UK. In sum, there is surprising variation in wage inequality both within and across welfare regimes and types of capitalism. This variation cannot be easily explained by the Power Resource or the VoC literature, nor is it consistent with the findings of the three studies reviewed in Table 11.

Given that wage inequality is measured among full-time dependent employees, it is important to ensure that the surprising German and Danish ranking is not the result of a bias. This could be the case if low income workers in the UK, France and Belgium are, on average, more likely to be in temporary or part-time work and hence the measure of inequality is biased downwards in these countries. This is unlikely to be the case as the share of temporary employment is higher in Germany than in the UK, and higher in Denmark than in Belgium. Similarly, the share of part-time employment is higher in Germany than in France, Belgium and Ireland, and higher in Denmark than in Belgium (see Table 13). Thus, including part-time and temporary employees when measuring wage inequality between the median and bottom deciles of the income distribution would likely increase inequality more in Germany and Denmark than in the other countries.

Furthermore, hourly earnings inequality between workers employed in the industry and services – regardless of the type of contract they have – is higher in Germany and Denmark than in Belgium, France, Ireland and the UK. The same is true

when analysing the hourly earnings ratio of workers on indefinite contracts relative to those on fixed term contracts. If one considers instead the hourly earnings ratio of workers with medium, relative to low education, the German ratio is again larger than in France, Belgium, Ireland or the UK, and the ratio in Denmark is larger than in Belgium or France.

Table 12: European wage inequality between 50th and 10th deciles in 2005

Country	Wage inequality	Union density	Wage coordination index	Centralisation	Public sector employees	Trade Openness
Germany	1.95	21.64	4.00	0.50	24.54	76.92
Ireland	1.83	36.81	5.00	0.45	24.55	151.55
UK	1.82	29.27	1.00	0.30	26.31	56.17
Greece	1.72	22.98	4.00	0.40	30.45	53.91
Austria	1.70	33.00	4.00	0.76	24.58	104.40
Spain	1.67	14.98	4.00	0.46	19.81	56.64
Netherlands	1.65	21.92	4.00	0.60	28.06	130.72
Portugal	1.61	n.a.	3.00	n.a.	22.34	64.96
Italy	1.61	33.77	4.00	0.35	22.75	51.96
Denmark	1.53	71.70	3.00	0.44	32.33	93.07
France	1.47	8.01	2.00	0.24	30.08	53.35
Norway	1.46	54.87	4.00	0.52	n.a.	72.80
Finland	1.42	72.43	4.00	0.43	30.76	79.49
Belgium	1.40	52.86	5.00	0.48	32.58	156.44
Sweden	1.35	76.04	3.00	0.53	34.23	89.04

Note: Centralisation and wage coordination are higher for higher values of the index.

Source: See section 3.1 for data sources.

Table 13: Temporary and part-time employment, and hourly earnings inequality

	Temporary work	Part-time work	Hourly earnings ratio industry/services	Ratio indefinite duration/fixed-term	Ratio medium/low educational attainment
Belgium	8.86	19.29	1.033	1.146	1.107
Denmark	9.84	17.59	1.117	1.463	1.179
France	13.88	13.92	1.001	1.147	1.147
Germany	14.24	21.84	1.115	1.328	1.555
Ireland	3.67	20.37	1.064	1.279	1.102
UK	5.76	23.04	1.034	1.165	1.304
Year	2005	2005	2002	2006	2006

Source: Temporary and part-time employment as a share of total dependent employees (OECD statistic website), hourly earnings ratio industry/services (EU KLEMS database) and ratios of indefinite/fixed and medium/low educational attainment (Eurostat, SES 2006; earn_ses06_22).

2. Hypotheses: Power resources, coordination, and dualisation

This section derives a number of hypotheses concerning the impact of welfare state policies, economic coordination and labour market dualisation on inequality. The expansion of the temporary work sector and the parallel deregulation of employment protection legislation in this sector have put upward pressure on inequality (Hypothesis 1). I challenge the conventional wisdom concerning the effect of coordination and welfare state policies. Welfare state policies may increase or decrease inequality depending on whether they decommodify or recommodify benefit recipients (Hypothesis 2). Also, economic coordination is consistent with lower inequality only in settings where the unions are strong and inclusive and/or where there is a national statutory minimum wage regulation (Hypothesis 3).

2.1. Hypothesis 1: Labour market dualisation and inequality

In parallel to changes in inequality, European economies have undergone the dualisation of their labour market policies and institutions (Palier and Thelen, 2010; Iversen and Soskice, 2009). For the purpose of this paper, dualisation is understood as a process of differentiation in rights, protection and conditions of work that can be observed between insiders, regular workers in full-time permanent protected and well-paid jobs, and outsiders in temporary or part-time work, low protection and low pay jobs. This conceptualisation of insiders is akin to Piore's (1972: 2) characterisation of jobs in the primary sector with "relatively high wages, good working conditions, chances of advancement, equity and ... employment stability".

One should further distinguish between the process of dualisation, the dualism in policy outputs that this process generates, and the divides between different workers in terms of wage outcomes, for example (Emmenegger *et al.*, 2012). The analysis of dualisation remains in its infancy and no attempts have been made to systematically link policy dualism to developments in wage inequality. Inequality in wages between low income and middle income full-time workers therefore represents a good testing ground for the impact of the dualisation processes and the effect of insiders' institutions on outsiders' welfare (cf. Oliver, 2010).

There is both a quantitative (i.e.: number of outsiders) and a qualitative (i.e.: how much they are protected) aspect to labour market dualisation. Here I focus on temporary work for which there are data for both the size of the temporary work sector

and the extent to which the sector is regulated. The larger the size of temporary work and the less temporary workers are protected the more dualised a labour market.

I expect labour market dualisation between temporary and permanent workers to lead to greater inequality among permanent workers. Indeed, to the extent that temporary workers have on average lower skills and wages, the growth of the temporary work sector should put greater pressure on permanent workers with low income, thereby increasing inequality. From this discussion I therefore derive the following hypothesis:

Hypothesis 1: The more dualised the labour market between temporary and permanent workers the higher the inequality between median and low income workers.

2.2. Hypothesis 2: Power resources, decommodification and recommodification

In the Power Resource (PR) approach, the strength of the labour movement is a key determinant of positive labour market policies such as generous unemployment benefits and also outcomes such as lower unemployment and inequality (Korpi, 1983; Korpi, 2006; Stephens, 1979; Esping-Andersen, 1999). Left-wing parties are seen to represent the interests of labour and hence will expand welfare state institutions in a way that is conducive to workers' interests. The effect of these policies that the left generally expands - total social expenditures, benefit generosity, labour market policies, and so on - are then seen to lead to more egalitarian distributive outcomes

(Bradley *et al.*, 2003). Therefore the argument has two observable implications: (1) the left expands welfare state policies, and; (2) this leads to lower inequality.

Though in the PR literature, the effect of the left works through welfare state policies, so there are two reasons why one should consider the effect of partisanship and welfare state policies separately. First, as I have shown in the first paper of this thesis, the left may actually oppose some welfare state policies if they have a detrimental impact on employed workers. Second, in many European countries governments also have a direct role in the wage setting process (Wallerstein, 1999). If left-wing governments prefer lower inequality than right-wing governments, then one should expect that left control of the government has a direct mitigating effect on inequality, distinct from the effect which they may have through welfare state policies.

In addition to partisanship, union strength can lead to lower inequality through two mechanisms. First, as discussed earlier in the literature review, unions have both more preferences for the compression of wages and more capacity than isolated individuals to negotiate wages (Kenworthy, 2010; Freeman and Medoff, 1984). The stronger the unions, the more they will be able to impose their preferences for low inequality in the wage bargaining process. Second, it is important to analyse union strength separately from left government control because these two actors may not have the same preferences for welfare state policies (Jensen, 2011). Stronger unions may successfully push for certain welfare state policies, regardless of the government in power. I therefore expect higher union density to have a negative effect on wage inequality.

Lastly, a vast area of the literature has argued that the welfare state serves to decommodify labour which should *ceteris paribus* reduce inequality (Esping-Andersen, 1990). However, welfare states have undergone profound reforms of the design of existing policies, for instance through activation (Clasen and Clegg, 2006; Daguerre, 2007), and new policies such as in-work benefits have been introduced (Leppik, 2006). The implication of these reforms and new policies is that welfare state policies may have become increasingly recommodifying (Pierson, 2001), in the sense of incentivising workers to accept low income jobs.

If this is true, recommodifying welfare state policies should be associated with higher, not lower, inequality. For instance, among the set of Active Labour Market Programmes (ALMPs) that countries can undertake, two programmes - employment incentives and rehabilitation - incentivise unemployed workers to return to employment. To the extent that these programmes recommodify - rather than decommodify - workers, they should be associated with higher inequality. In sum, I test the following two hypotheses concerning the impact of the left, unions and welfare state policies:

Hypothesis 2a: Stronger unions and the control of government by the left are associated with lower inequality.

Hypothesis 2b: Decommodifying welfare state policies reduce inequality but recommodifying welfare state policies increase inequality.

2.3. Hypothesis 3: The ambiguous effect of economic coordination

Different types of capitalism can be equally efficient but with important differences in terms of social and egalitarian outcomes (Hall and Soskice, 2001). The efficiency of an economy depends on the ability of firms in capitalist countries to solve various coordination problems across spheres of the economy. These spheres include the provision of skills (training), worker-employer relations (industrial relations), internal management practices and access to capital (financial system). Problems can be solved either through market or non-market coordination. One should distinguish between CMEs where firms rely mostly on non-market coordination and Liberal Market Economies (LMEs) where firms coordinate through the market. Countries that rely on a mix of market and non-market coordination belong to Mixed Market Economies (MMEs) and are generally less efficient (Hancke et al, 2007; Hall and Gingerich, 2004).

The high skill and high value added production strategy of CMEs is seen to allow for more solidaristic wage settlements. As was discussed earlier in section 1.2, the VoC literature expects CMEs to be more successful in mitigating inequality between median and low income workers because of more coordinated wage bargaining and a greater ability to raise the skills of low income workers. The expectation from this literature is that CMEs should be associated with more egalitarian outcomes than non-CMEs.

However, as was documented in section 1 using descriptive data, wage inequality at the lower end of the income distribution is now higher in a number of

CMEs than in other MMEs and LMEs. To understand why that might be the case, it is important to distinguish the degree of coordination of an economy from the inclusiveness of its coordinating institutions.

Recall that the neoclassic economics literature has long shown that unions win higher wages for their members as opposed to non-members, a process commonly referred to as ‘union wage gap’ (Borjas, 2005: 428). There is a large body of evidence to substantiate the claim that there exists such a union wage premium (Budd and Na, 2000; Freeman, 1984; Hirsch, 2004). However, there are two contradicting effects at work. On the one hand, unionised workers earn more, everything else being equal, than their non-unionised counterparts, but on the other hand, unions reduce inequality between their members (Freeman and Medoff, 1984).

If unions are more likely to unionise median and high income workers than low income workers, only unions which cover the vast majority of the workforce would have low income workers among their ranks. This assumption is consistent with existing evidence which documents the over-representation of the top quintile relative to the bottom quintile in most other European countries (Becher and Pontusson, 2011: Table 2). Perhaps more directly relevant, and further confirming this assumption, Checchi *et al.* (2007: 17, 18) show that “trade unions mainly attract workers from the intermediate earnings group.” More specifically, their findings demonstrate that the probability of union membership is lower when the income of the worker is further away from the median. This effect is stronger for workers with

incomes below the median than those with incomes above the median. This result holds for the vast majority of European countries in their sample.

If unions often do not count among their members low income workers, and if economic coordination increases the productivity of coordinated workers and strengthens the union movement, higher coordination should increase the wages of median income workers more than of low income workers. As a result, economic coordination that covers only median income workers actually leads to greater inequality between median and low income workers. My argument entails a similar logic to theories that emphasise the adverse efficiency implications of centralised but insufficiently encompassing institutions (e.g. Calmfors and Driffill, 1988), but stresses instead the equity implications: coordination in the absence of a strong and inclusive labour movement creates inequality at the bottom of income distribution.

In constructing a conceptual distinction between the coordinating and equalising effects of institutions, I follow the distinction developed by Swank *et al.* (2008: 8) between coordination, the “extent to which actors rely on non-market coordination”, and egalitarianism, “egalitarian income and employment.” As a result, both “high levels of equality with liberalisation” and “declining solidarity in the context of continued significant coordination” represent possible paths (Thelen, 2012: 137).

My expectation is therefore that economic coordination will not increase inequality where the union movement is still strong and encompassing, as is for instance the case in Sweden. Where high coordination occurs in the presence of

national statutory minimum wage regulations, this should also mitigate the inegalitarian effects of coordination. In other words, minimum wage regulation is a functional equivalent to encompassing coordination. To sum up, two hypotheses are tested concerning the effect of coordination:

Hypothesis 3a: On average economic coordination increases inequality.

Hypothesis 3b: The effect of economic coordination on inequality is negative only where unions are strong and encompassing and/or in the presence of national minimum wage regulations.

3. Testing the hypotheses: empirical model and estimation method

This section briefly describes how I operationalise my hypotheses (3.1), identifies the data and specifies the empirical model (3.2) and discusses the chosen estimation method (3.3).

3.1. Operationalisation of my hypotheses

To test my first hypothesis concerning the effect of labour market dualisation on inequality, I create an index of dualisation which is obtained by calculating the ratio of temporary work (share of the labour force) divided by the employment protection legislation for temporary workers. Thus, this index captures the fact that dualisation increases as the size of temporary work expands and the regulations of the sector are reduced. I expect this dualisation index to be associated with higher

inequality (hypothesis 1). This index is lagged once to account for the fact that the effect of dualisation on inequality is unlikely to be instantaneous.

The second set of hypotheses partly build the Power Resource approach by expecting wage inequality to be negatively associated with left control of the government, union strength and welfare state policies. To test the effect of the strength of the left (hypothesis 2a), I include the share of the cabinet controlled by the left in a given year⁶⁵ and the size of the union, captured by the share of workers that is unionised (i.e.: union density - see appendix for sources and detailed description of all the variables).

To investigate the impact of the decommodifying welfare state policies on inequality (hypothesis 2b), I focus on the unemployment benefit system which is an important determinant of workers' reservation wage. More specifically, I include the unemployment benefit replacement rate in the first year of unemployment (CEPS-OECD data). In addition, to show that not all welfare state spending is necessarily conducive to equality, I also create a variable "Bad ALMPs"⁶⁶ which sums spending on employment incentives and employment rehabilitation programmes. Employment incentives and rehabilitation programmes are good examples of recommodifying policies. I expect this variable to be positively associated with wage inequality.

⁶⁵ Note that other measures of left strength will also be tested.

⁶⁶ Note that the adjective is used purely for convenience: though the choice of the adjective seems value loaded, I do not wish it to convey a normative point. These ALMPs are only 'bad' insofar as they may have adverse effects on wage inequality.

Finally, to test whether CMEs have systematically lower inequality than LMEs (hypothesis 3a) the analysis mainly⁶⁷ relies on the Hall Gingerich (2004) index of coordination that ranges from 0 (low coordination) to 1 (high coordination). If VoC is correct, this index should be negatively associated with inequality. By contrast, I expect this variable to be either insignificant or positively associated with inequality because economic coordination raises the bargaining power of median income worker but leaves the bargaining power of low income workers unchanged.

Furthermore, I test whether the effect of coordination on inequality is contingent on the strength of labour and institutions (hypothesis 3b). To do so I create two interaction terms between coordination on the one hand and union density and the presence of the minimum wage regulations. My expectation is that coordination only increases inequality where union density is low and there are no statutory minimum wages.

3.2. Data and Empirical model

My sample includes 15 European countries (EU15 minus Luxembourg plus Norway) for all available years up until 2007, though the sample when all relevant independent variables are considered jointly, comprises 10 EU countries (Belgium,

⁶⁷ I also test the effect of union centralisation in wage bargaining which captures “both union authority and union concentration at multiple levels” (Visser, 2009). As a robustness check I also test this hypothesis using the wage coordination index which was also developed by Visser (2009). See Table A3.3 in the appendix for more details on these two variables.

Denmark, Finland, France, Germany, Ireland, Netherlands, Norway, Sweden, UK).

The baseline regression that is estimated for i countries in t years is:

$$\begin{aligned} INEQ_{i,t} = & \beta_0 + \beta_1 UD_{i,t} + \beta_2 LEFT_{i,t} + \beta_3 TSS_{i,t} + \beta_4 COORD_{i,t} + \beta_5 DUA_{i,t} \\ & + \beta_6 REP_{i,t} + \beta_7 BADALMP_{i,t} + \sum_{j=1}^J \lambda_j CONTROLS_{j,i,t} + \varepsilon_{i,t} \end{aligned}$$

Where $INEQ$ is the dependent variable, wage inequality between the median and bottom income deciles in year t in country i , UD is union density, $LEFT$ is control of the cabinet by the left, TSS is total public social spending, and $COORD$ is the index of coordination mentioned earlier. The variables DUA , REP , and $BADALMP$ represent the index of dualisation, unemployment benefits replacement rate and the sum of spending on employment incentives and rehabilitation programmes, respectively. The description and sources of each variable can be found in Table A3.3 in the appendix. I also control for a number of economic factors identified in the economic literature (see section 1.1) such as unemployment, GDP growth and trade openness (total trade as a % of GDP).

While openness can be expected to increase inequality (Wood, 1994), the expectations for growth and unemployment are less clear. To the extent that unemployment puts downward pressure on low income workers, this could raise inequality. On the other hand, if low skill workers are priced out of the labour market as a result of institutions that prevent wages from falling too low (e.g. minimum wage regulation) then the two might be positively correlated.

Last but not least, the analysis also considers a number of other factors that may have an effect on my dependent variable: the size of the public and manufacturing sector (% of total employees), inflation, educational attainment, and the presence of statutory national minimum wage, the amount of the minimum wage relative to the median income, and the structure of the labour market (share of self-employment, part-time and temporary employment relative to total employment).

3.3. Preliminary statistical tests and estimation method

A number of preliminary statistical tests were carried out to identify the correct estimation method. The null hypothesis that all the panels contain a unit root is rejected, so I conclude that non-stationarity is not a problem.⁶⁸ Heteroskedasticity⁶⁹ and auto-correlation are present⁷⁰ so the appropriate estimation method is robust clustered standard error.⁷¹

The Hausman test does not suggest that country⁷² fixed effects should be included. Note further that my index of economic coordination is time invariant and so partly captures cross-national variation. Indeed, when including fixed country effects,

⁶⁸ More specifically, the Fisher unitroot test was used.

⁶⁹ LR test of heteroskedasticity rejects the null of homoskedastic disturbances.

⁷⁰ Wooldridge test for autocorrelation rejects the null of no-first order autocorrelation.

⁷¹ The stata command that was used in Stata 11 is: xtreg ... , vce (cluster id).

⁷² The Hausman test was performed on a regression with wage inequality as the dependent variable and a number of independent variables (GDP growth, unemployment rate, the degree of openness and the control of the cabinet by the left, union density, total social public expenditures, and the Hall Gingerich index of coordination).

Stata automatically drops the index of coordination. Time effects were included as an F-test rejected the null hypothesis that all year coefficients are jointly zero.

Multicollinearity tests were also undertaken on the main independent variables (GDP growth, unemployment rate, left share of cabinet, openness, union density, economic coordination, total social public expenditures, index of dualisation, ‘bad ALMPs’ and the replacement rate). The variance inflation factors for my independent variables were all under 4.05 and tolerance levels under 0.84, suggesting multicollinearity is not a concern.

4. Results

This section first presents the results for the baseline regression (4.1). Next, I investigate the stability of the results when a range of variables accounting for competing explanations are included and carry out a number of robustness checks (4.2). The effect of coordination on inequality and how it varies depending on the strength of unions and the presence of minimum wage regulation is then discussed (4.3).

4.1. Baseline results

Table 14 presents the regression results. I first report the results for a parsimonious model that tests the impact of power resources, coordination and economic factors on wage inequality. Each column then introduces an additional

variable: dualisation, 'bad ALMPs' (i.e.: employment incentives and rehabilitation), and the replacement rate. The fully specified model is presented in column 4. Column 1 shows the results for a baseline model. GDP growth, unemployment, openness and the left share of the cabinet have no statistically significant effect on the dependent variable. The index of coordination is similarly insignificant. Union density and public expenditures have a negative significant effect on wage inequality.

The second column introduces my index of dualisation which is positive and significant as expected. Other coefficients remain essentially unchanged. The third and fourth columns introduce the unemployment benefit replacement rate and my variable 'bad ALMPs'. More generous replacement rates have a negative effect on wage inequality, whereas 'bad ALMPs' are associated with higher wage inequality. The negative effect of openness also becomes statistically significant in the fully specified model.

In the fifth column, I include fixed country effects instead of time effects, which results in the regression dropping the index of coordination (since it is fully time invariant). Union density, social expenditures, the replacement rate and employment incentives become insignificant as the country fixed effects absorb the cross-national variation in my dependent variable. Note however that my index of dualisation is still significant in the presence of country effects.

Table 14: Determinants of wage inequality between 5th and bottom decile

Column	(1)	(2)	(3)	(4)	(5)
GDP growth rate	0.00602 (0.007)	0.00818 (0.007)	0.01532 (0.012)	0.02362* (0.012)	0.00318 (0.009)
Rate of Unemployment (% of Civilian Labour Force)	0.01130 (0.010)	-0.00295 (0.009)	-0.01877** (0.008)	-0.00430 (0.007)	-0.02206 (0.016)
Trade-to-GDP-ratio (Total trade)	-0.00096 (0.001)	-0.00082 (0.001)	-0.00050 (0.001)	-0.00172*** (0.000)	-0.00240 (0.002)
Union density	-0.00294*** (0.001)	-0.00378*** (0.001)	-0.00387*** (0.001)	-0.00385*** (0.001)	0.01220 (0.008)
Left cabinet	0.00004 (0.000)	0.00014 (0.000)	-0.00028 (0.000)	-0.00007 (0.000)	0.00022 (0.000)
Public Social Expenditures	-0.02647** (0.011)	-0.01901* (0.011)	0.00153 (0.011)	-0.01799** (0.008)	-0.00458 (0.010)
Index of coordination (Hall Gingerich)	-0.00378 (0.215)	0.38517 (0.273)	0.59213*** (0.122)	0.56422*** (0.070)	(omitted)
Index of dualisation (lagged)		0.01704** (0.007)	0.02285*** (0.006)	0.01497*** (0.004)	0.00690** (0.003)
Replacement rate (first year)			-0.00410*** (0.001)	-0.00700*** (0.001)	0.00501 (0.012)
Employment incentives and rehabilitation programmes (Spending as % of GDP)				0.35813*** (0.048)	0.36326 (0.244)
Constant	2.27639***	1.88898***	1.58844***	2.09955***	1.12538
Observations	195	146	107	107	107
Number of id	14	14	10	10	10
Country FE	No	No	No	No	Yes
Year FE	No	Yes	Yes	Yes	No
R-squared within	0.24	0.29	0.35	0.44	0.34
R-squared between	0.60	0.80	0.97	0.99	0.39
R-squared overall	0.67	0.72	0.87	0.91	0.31

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

The control of the government by the left does not seem to have an impact so I further investigate whether alternative proxies for these variables have an effect on inequality. The results are presented in Table 15. Columns 1 and 2 investigate the effect of the left share of parliament and a moving average of left cabinet shares, respectively.

Column 1 shows the result when the left share of cabinet is replaced by the left share of parliament. The effect of the left is still insignificant, in line with the expectation that the control of the government does not directly alter wage distribution. It is plausible that the effect of partisanship takes a significant amount of time to feed into economic outcomes, so I also test for the inclusion of a four year moving average of my variable, left share of the cabinet. This does not alter the results.

The negative coefficient for openness was also surprising as it ran counter to theoretical expectations that more openness may result in higher inequality by putting downward pressure on low income workers' wages.⁷³ In columns 3 and 4, I therefore look at imports and total trade with emerging and developing market economies, because trade with these countries tends to be in goods that utilise low skill low income workers. The negative significant coefficient suggests that higher imports from developing countries are also negatively associated with inequality.

⁷³ This suggests that openness may put more downward pressure on median income workers than on those in the bottom income decile.

Table 15: Alternative measures of left and openness

Column	(1)	(2)	(3)	(4)
GDP growth rate	0.02350*	0.02400**	0.01376	0.01608
	(0.012)	(0.011)	(0.015)	(0.014)
Rate of Unemployment (% of Civilian Labour Force)	-0.00615	-0.00470	-0.00709	-0.00324
	(0.008)	(0.007)	(0.006)	(0.006)
Trade-to-GDP-ratio (Total trade)	-0.00185***	-0.00173***		
	(0.001)	(0.000)		
Union density	-0.00387***	-0.00383***	-0.00442***	-0.00405***
	(0.000)	(0.001)	(0.000)	(0.000)
Public Social Expenditures	-0.01683**	-0.01763**	-0.01164	-0.01061
	(0.008)	(0.009)	(0.007)	(0.007)
Index of coordination (Hall Gingerich)	0.57153***	0.55805***	0.59007***	0.58866***
	(0.077)	(0.068)	(0.071)	(0.070)
Index of dualisation (lagged)	0.01545***	0.01487***	0.01687***	0.01665***
	(0.005)	(0.004)	(0.003)	(0.003)
Replacement rate (first year)	-0.00713***	-0.00691***	-0.00725***	-0.00737***
	(0.001)	(0.001)	(0.001)	(0.001)
Employment incentives and rehabilitation programmes (Spending as % of GDP)	0.35982***	0.35384***	0.31002***	0.30097***
	(0.056)	(0.058)	(0.046)	(0.044)
Left parliament	-0.00090			
	(0.001)			
Left cabinet (4 years moving average)		-0.00015		
		(0.000)		
Left cabinet			-0.00005	-0.00005
			(0.000)	(0.000)
Imports from Emerging and developing economies			-0.01655***	
			(0.003)	
Trade to and from Emerging and developing economies				-0.01025***
				(0.002)
Constant	2.13341***	2.09796***	1.97839***	1.92307***
Observations	107	107	107	107
Number of id	10	10	10	10
Country FE	No	No	No	No
Year FE	Yes	Yes	Yes	Yes
R-squared within	0.44	0.44	0.37	0.37
R-squared between	0.99	0.99	0.99	0.99
R-squared overall	0.91	0.91	0.90	0.90

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

4.2. Controlling for additional factors and robustness checks

Table 16 investigates the impact of additional factors on the stability of the results presented in column 4 in Table 14. Column 1 just reproduces the results from column 4 in Table 14 to facilitate the investigation of the stability of results. Columns 2 and 3 test the effect of other characteristics of the union movement on inequality. Column 2 shows the results when union centralisation is included. The coefficient of union centralisation is not significant, while the other coefficients of my main independent variables are unchanged. In column 3, I test for the inclusion of bargaining coverage which does not have a significant impact.

Columns 4 to 6 consider the effect of labour market institutions. A particularly important institution for inequality at the lower end of the income distribution is minimum wage regulations. Here the main difference between countries is whether they have a statutory national minimum wage. Using Visser's (2009) minimum wage setting data, I create a dummy variable that takes the value 1 when the country has a national statutory minimum wage and 0 otherwise. As expected, the presence of a national statutory minimum wage has a significant negative impact on inequality (column 4).

Table 16: Determinants of wage inequality: including additional controls

Column	(1)	(2)	(3)	(4)
GDP growth rate	0.02362* (0.012)	0.02342* (0.013)	0.02827** (0.012)	0.02282 (0.014)
Rate of Unemployment (% of Civilian Labour Force)	-0.00430 (0.007)	-0.00473 (0.007)	-0.00733 (0.004)	-0.00103 (0.007)
Trade-to-GDP-ratio (Total trade)	-0.00172*** (0.000)	-0.00168*** (0.000)	-0.00201*** (0.001)	-0.00156*** (0.000)
Union density	-0.00385*** (0.001)	-0.00384*** (0.001)	-0.00396*** (0.000)	-0.00417*** (0.000)
Left cabinet	-0.00007 (0.000)	-0.00006 (0.000)	-0.00025 (0.000)	0.00003 (0.000)
Public Social Expenditures	-0.01799** (0.008)	-0.01824** (0.009)	-0.01429 (0.009)	-0.01937** (0.008)
Index of coordination (Hall Gingerich)	0.56422*** (0.070)	0.57483*** (0.083)	0.47836*** (0.077)	0.51023*** (0.071)
Index of dualisation (lagged)	0.01497*** (0.004)	0.01513*** (0.004)	0.01118*** (0.003)	0.01298*** (0.004)
Replacement rate (first year)	-0.00700*** (0.001)	-0.00700*** (0.001)	-0.00788*** (0.001)	-0.00658*** (0.001)
Employment incentives and rehabilitation programmes (Spending as % of GDP)	0.35813*** (0.048)	0.36117*** (0.049)	0.40694*** (0.063)	0.35322*** (0.055)
Union centralisation		-0.02512		
Bargaining coverage (adjusted)			-0.00042	
Minimum wage dummy				-0.03647**
Constant	2.09955***	2.10871***	2.19678***	2.14930***
Observations	107	107	104	107
Number of id	10	10	10	10
Country FE	No	No	No	No
Year FE	Yes	Yes	Yes	Yes
R-squared within	0.44	0.44	0.46	0.43
R-squared between	0.99	0.99	0.99	0.99
R-squared overall	0.91	0.91	0.92	0.91

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

To further investigate the impact of minimum wages and ensure that my analysis does not suffer from an omitted variable bias, I also test for the effect of the level of the minimum wage in countries that do have statutory minimum wage regulations. More specifically, my variable measures the value of the minimum wage relative to the median wage in each country. Again the coefficient is negative and significant (column 5). Besides minimum wage regulation, employment protection legislation may also affect the wage bargaining power of workers. Higher employment protection legislation for regular workers could enable skilled workers to extract higher wages relative to low income workers on temporary contracts. The coefficient for employment protection legislation for regular workers is not however statistically significant (column 6).

Columns 7 to 11 analyse the effect of other economic and structural factors. Column 7 tests for the effect of the supply of higher skills in the economy. Previous literature has underscored the possibility that inequality was driven by an increase in the educational attainments of some workers. Following Wallerstein (1999), I use educational attainment of the total population aged 15 and over, expressed as average years of schooling.⁷⁴ There does not seem to be any significant impact. Note that studies using more sophisticated measures of education do not find any impact on my measure of inequality either (Mahler, 2011).

⁷⁴ Taken from a dataset collected by Barro and Lee (2000).

Table 16 (continued): Determinants of wage inequality: stepwise inclusion of additional controls

Column	(5)	(6)	(7)
GDP growth rate	0.03147** (0.014)	0.02524* (0.013)	0.02363* (0.012)
Rate of Unemployment (% of Civilian Labour Force)	-0.00705 (0.005)	-0.00443 (0.007)	-0.00535 (0.007)
Trade-to-GDP-ratio (Total trade)	-0.00133*** (0.000)	-0.00171*** (0.000)	-0.00172*** (0.000)
Union density	-0.00504*** (0.001)	-0.00419*** (0.001)	-0.00373*** (0.001)
Left cabinet	-0.00019 (0.000)	-0.00005 (0.000)	-0.00007 (0.000)
Public Social Expenditures	-0.01320* (0.007)	-0.01826** (0.009)	-0.01792** (0.009)
Index of coordination (Hall Gingerich)	0.39400*** (0.105)	0.61912*** (0.117)	0.57654*** (0.084)
Index of dualisation (lagged)	0.00989** (0.005)	0.01566*** (0.005)	0.01522*** (0.004)
Replacement rate (first year)	-0.00742*** (0.001)	-0.00657*** (0.001)	-0.00704*** (0.001)
Employment incentives and rehabilitation programmes (Spending as % of GDP)	0.38208*** (0.060)	0.36862*** (0.064)	0.35419*** (0.051)
OECD minimum wage relative to median	-0.13329**		
Employment Protection Legislation (regular workers)		-0.02604	
Educational attainment			-0.00411
Constant	2.19947***	2.10331***	2.13123***
Observations	105	107	107
Number of id	10	10	10
Country FE	No	No	No
Year FE	Yes	Yes	Yes
R-squared within	0.48	0.44	0.44
R-squared between	0.98	0.99	0.99
R-squared overall	0.92	0.91	0.91

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

In column 8, I examine whether inflation affects distinct income groups differently. The coefficient is positive but not significant. Technological change was identified as a potential driver of recent trends in inequality in section 1. Following the OECD (2012), I use spending on Research and Development in the private sector as a proxy for technological change. The coefficient is not significant further confirming that economic factors do not seem to drive wage inequality at the low end of the income distribution.

In columns 10 and 11, the effect of the size of the manufacturing and public sector employment⁷⁵ is analysed. Public sector employees are generally conceived to have more egalitarian wage structures. However, I find no empirical support for this claim (column 10), which may be consistent with the drive towards more flexible wage scales emblematic of New Public Management (Sindane, 2004; Taylor-Gooby, 2008; Grimshaw, 2009), which has been taking place in public sectors across Europe.

Deindustrialisation may have reduced the availability of well-paid jobs for low income workers, whereas the concurrent expansion of the service sector may have increased the supply of well-paid jobs for skilled workers. I find no empirical support for this claim as the coefficient of my manufacturing variable is not statistically significant (column 11).

⁷⁵ Both are expressed as a share of total labour force – see appendix for details.

Table 16 (continued): Determinants of wage inequality: stepwise inclusion of additional controls

Column	(8)	(9)	(10)	(11)
GDP growth rate	0.02332* (0.013)	0.02317 (0.014)	0.02325* (0.013)	0.02298* (0.012)
Rate of Unemployment (% of Civilian Labour Force)	-0.00374 (0.007)	-0.00616 (0.006)	-0.00585 (0.008)	-0.00871 (0.008)
Trade-to-GDP-ratio (Total trade)	-0.00174*** (0.000)	-0.00181*** (0.000)	-0.00172*** (0.001)	-0.00182*** (0.001)
Union density	-0.00386*** (0.001)	-0.00391*** (0.000)	-0.00341*** (0.001)	-0.00363*** (0.001)
Left cabinet	-0.00005 (0.000)	-0.00010 (0.000)	-0.00003 (0.000)	0.00002 (0.000)
Public Social Expenditures	-0.01793** (0.009)	-0.01984** (0.010)	-0.01644* (0.009)	-0.01959** (0.010)
Index of coordination (Hall Gingerich)	0.55339*** (0.066)	0.59456*** (0.074)	0.51566*** (0.102)	0.55600*** (0.059)
Index of dualisation (lagged)	0.01483*** (0.004)	0.01560*** (0.004)	0.01373*** (0.005)	0.01335*** (0.004)
Replacement rate (first year)	-0.00707*** (0.001)	-0.00654*** (0.001)	-0.00606*** (0.001)	-0.00702*** (0.001)
Employment incentives and rehabilitation programmes (Spending as % of GDP)	0.36249*** (0.046)	0.34625*** (0.056)	0.29997*** (0.064)	0.32172*** (0.050)
Consumer price index	0.00331			
Spending on R&D (business sector)		-0.00409		
Public sector employees (% total employees)			-0.00443	
Manufacturing sector (first difference)				0.03006
Constant	2.09705***	2.12875***	2.18723***	2.21947***
Observations	107	96	100	100
Number of id	10	10	9	9
Country FE	No	No	No	No
Year FE	Yes	Yes	Yes	Yes
R-squared within	0.43	0.45	0.46	0.47
R-squared between	0.99	0.99	0.99	0.99
R-squared overall	0.91	0.91	0.91	0.91

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Columns 12 to 14 test whether including the share of self-employed, involuntary part-timers and temporary employment affects the results. My measure of wage inequality is for full-time dependent employees only, so it is important to control for the share of workers not covered by my dependent variable. None of my results are affected and only the (negative) coefficient for the share of involuntary part-time workers is statistically significant.⁷⁶

Last but not least, columns 15 to 17 display the results when including a proxy for the extent of immigration, the share of the female labour force and a control of unit labour costs. My findings concerning the effect of coordination, dualisation, ‘bad ALMPs’ and replacement rate are unchanged. Throughout columns 2 to 17, the substantive results for my independent variables therefore remain stable. In line with my hypotheses, total social expenditures and union density have a negative impact on inequality⁷⁷ whereas economic coordination is positively associated with economic inequality. Dualisation and ‘bad ALMPs’ are associated with higher inequality throughout, whereas high unemployment benefit replacement rates reduce inequality.

⁷⁶ Note that when including temporary work, the dualisation index has to be dropped since it is composed of temporary employment.

⁷⁷ Except in column 3 where bargaining coverage is included and the coefficient for total social public spending loses statistical significance.

Table 16 (continued): Stepwise inclusion of additional controls

Column	(12)	(13)	(14)
GDP growth rate	0.02368*	0.02726**	0.02778**
	(0.013)	(0.011)	(0.012)
Rate of Unemployment (% of Civilian Labour Force)	-0.00632	0.00387	0.00960
	(0.006)	(0.008)	(0.011)
Trade-to-GDP-ratio (Total trade)	-0.00194***	-0.00156***	-0.00231***
	(0.001)	(0.000)	(0.000)
Union density	-0.00387***	-0.00395***	-0.00300***
	(0.001)	(0.000)	(0.001)
Left cabinet	-0.00010	0.00000	0.00049
	(0.000)	(0.000)	(0.000)
Public Social Expenditures	-0.01753**	-0.01271*	-0.03768***
	(0.008)	(0.007)	(0.010)
Index of coordination (Hall Gingerich)	0.56872***	0.47943***	0.34987***
	(0.070)	(0.064)	(0.094)
Index of dualisation (lagged)	0.01480***	0.01453***	
	(0.005)	(0.004)	
Replacement rate (first year)	-0.00692***	-0.00599***	-0.00904***
	(0.001)	(0.001)	(0.001)
Employment incentives and rehabilitation programmes (Spending as % of GDP)	0.36902***	0.32500***	0.50698***
	(0.056)	(0.044)	(0.069)
Self-employment (% of civilian employment)	0.00386		
Share of involuntary part-timers (total employment)		-0.02748**	
Share of temporary employment (% Dependent employment)			0.00179
Constant	2.06456***	1.91668***	2.78138***
Observations	107	99	112
Number of id	10	10	10
Country FE	No	No	No
Year FE	Yes	Yes	Yes
R-squared within	0.44	0.51	0.35
R-squared between	0.99	0.99	0.96
R-squared overall	0.91	0.92	0.87

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 16 (continued): Stepwise inclusion of additional controls

Column	(15)	(16)	(17)
GDP growth rate	0.02417* (0.015)	0.02617** (0.012)	-0.00791 (0.006)
Rate of Unemployment (% of Civilian Labour Force)	-0.00364 (0.006)	0.00005 (0.008)	-0.00524 (0.004)
Trade-to-GDP-ratio (Total trade)	-0.00157*** (0.001)	-0.00179*** (0.000)	-0.00108 (0.002)
Union density	-0.00402*** (0.001)	-0.00397*** (0.000)	-0.00366*** (0.000)
Left cabinet	-0.00006 (0.000)	0.00007 (0.000)	0.00036 (0.000)
Public Social Expenditures	-0.01757* (0.009)	-0.01868** (0.008)	-0.00553 (0.010)
Index of coordination (Hall Gingerich)	0.56757*** (0.076)	0.55773*** (0.068)	0.42472*** (0.120)
Index of dualisation (lagged)	0.01500*** (0.004)	0.01395*** (0.004)	0.01289** (0.005)
Replacement rate (first year)	-0.00714*** (0.001)	-0.00718*** (0.001)	-0.00630** (0.003)
Employment incentives and rehabilitation programmes (Spending as % of GDP)	0.35833*** (0.049)	0.38973*** (0.052)	0.26010*** (0.044)
Civilian labour force females % of pop 15-64	0.00086 (0.003)		
Unit Labour Cost		0.00888* (0.005)	
Inflows of foreign population by nationality (lagged once)			0.00072 (0.006)
Constant	2.03406***	2.05980***	1.82396***
Observations	107	107	51
Number of id	10	10	8
Country FE	No	No	No
Year FE	Yes	Yes	Yes
R-squared within	0.44	0.45	0.57
R-squared between	0.99	0.99	1.00
R-squared overall	0.91	0.91	0.98

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 17 summarises how the key results hold when different variables are included. Three sets of robustness checks are also undertaken. First, I run a jack-knife analysis (stepwise country exclusion) on my EU10 sample using the baseline model (i.e.: equivalent to column 4, Table 14). This shows that the key results for dualisation, ‘bad ALMPs’, replacement rate, union density and total social expenditures are robust to the exclusion of any one country in my sample (see Table A3.1 in appendix).

Second, since changes in wage inequality are slow moving, I run the analysis replacing annual observations by a 3 year period average. Column 4 in Table A3.2 (in appendix) shows that this does not affect the sign or significance of my main variables. Note further that including fixed effects in this smaller sample (maximum 65 observations) does not affect the coefficient of dualisation nor of ‘bad ALMPs’ (column 3). In columns 5 to 10, I test for the stability of these results to the inclusion of other relevant economic and structural factors in (educational attainment, size of manufacturing sector, imports from emerging market economies, consumer price index, size of manufacturing and public sector, and spending on research and development) as well as institutional factors (statutory minimum wage, union centralisation, bargaining coverage). My main results are unchanged.

Third, I rerun the analysis using different measures for two of the key independent variables: coordination and dualisation. For coordination, I rely on the wage coordination index developed by Visser (2009), which ranges from zero - low coordination - to five - high coordination (see Table A3.3 for details on this variable). My previous index of dualisation was calculated by dividing the share of temporary

work by the EPL for temporary work. Instead, I now standardise and rescale from 1 to 10 both EPL for temporary workers and the share of temporary work in total employment. The results using wage coordination and this new index dualisation are the same as before, as shown in Table A3.4 in the appendix. I also carry out a standard jack-knife robustness analysis, shown in Table A3.5 in the appendix, to investigate the impact of any specific country on my results. The results concerning labour market dualisation are sensitive to the exclusion of Germany. This was not the case when using the dualisation index that attributed lower weight to EPL of temporary work (Table A3.1). Given the measurement problems associated with EPL indices, more confidence can be attributed to the index that gives a lower weight to the EPL index. Recall further measuring only the ‘quantitative dimension’ of dualisation by testing the effect of the size of the temporary work sector also yielded similar results.

One therefore faces a trade-off between choosing an indicator that has greater conceptual validity and one that has greater empirical validity. On the one hand, measuring both the quantitative (share of temporary work sector) and qualitative (EPL) dimensions of dualisation seems conceptually warranted. On the other hand, the qualitative dimension of dualisation (EPL index) suffers from more severe measurement problems. The dualisation index that only gives a more limited weight to the index EPL strikes a good balance between excluding the index all together and giving greater weight the EPL of the temporary work sector.

Table 17: Summary stability of results when additional factors are included

Effect on:	Included variable	Coordination	Dualisation	Union density	Replacement rate	Bad ALMPs
Left parliament	0	+++	+++	---	---	+++
Left cabinet (4y MA)	0	+++	+++	---	---	+++
Left Cabinet	0	+++	+++	---	---	+++
Imports from EMEs	---	+++	+++	---	---	+++
Total trade with EMEs	---	+++	+++	---	---	+++
Union centralisation	0	+++	+++	---	---	+++
Bargaining coverage	0	+++	+++	---	---	+++
Minimum wage dummy	--	+++	+++	---	---	+++
Relative minimum wage	--	+++	+++	---	---	+++
EPL regular workers	0	+++	+++	---	---	+++
Educational attainment	0	+++	+++	---	---	+++
Consumer Price Index	0	+++	+++	---	---	+++
Spending on R&D	0	+++	+++	---	---	+++
Share employees in public sector	0	+++	+++	---	---	+++
Share employees in manufacturing sector	0	+++	+++	---	---	+++
Share of self-employment	0	+++	+++	---	---	+++
Share of involuntary part-timers	--	+++	+++	---	---	+++
Share of temporary employment	0	+++	excluded	---	---	+++
Civilian labour force females % of pop 15-64	0	+++	+++	---	---	+++
Unit Labour Cost	+	+++	+++	---	---	+++
Inflows of foreign population	0	+++	++	---	--	+++

Note: +++, ++, + positive effect at the 1%, 5% and 10% significance levels; ---, --, - negative effect at the 1%, 5% and 10% significance levels; 0 no significant effect. EMEs stand for Emerging Market Economies. All variables' sources and definitions can be found in Table A3.3 in the appendix.

4.3. The effect of coordination

Together these results strongly rule out an important causal force of economic drivers alone. My results also suggest that economic coordination has a positive effect on inequality, contradicting the expectations of VoC, but consistent with Germany's high wage inequality. To test whether this positive effect is contingent on the strength of labour and the presence of mitigating institutions (Hypothesis 3b), I create two separate interaction terms between coordination on the one hand, and union density and the presence of minimum wage regulations on the other.

The results for these two interaction terms are reported in Table 18. Column 1 and 2 show that economic coordination has a more positive effect on inequality where union density is low and where there are no national statutory minimum wage regulations in place in the country. These results explain why France's coordination was consistent with egalitarian outcomes whereas coordination may have resulted in higher inequality in Germany and Denmark. The marginal effect of coordination⁷⁸ on inequality is .195 (p-value 0.018) when there is no national statutory minimum wage regulation as in Germany but -0.17 (p-value 0.006) where there is a minimum wage regulation such as in France.

⁷⁸ These marginal effects were calculated using the margin command in Stata on the following regression: “quietly xtreg w5010 gdpgr ur ud man leftc tss l.dua c.minimum##c.hi i.year, vce (cluster id)”/// “margins , dydx(hi) at((mean) _all minimum=(0(1)1))”.

Table 18: The contingent effect of Coordination and its mediating role

Column	(1)	(2)
GDP growth rate	-0.00107 (0.009)	0.00634 (0.009)
Rate of unemployment (% of Civilian Labour Force)	-0.02719*** (0.007)	0.00108 (0.007)
Manufacturing employees (% of total employees)	0.02972*** (0.011)	0.00957 (0.009)
Left cabinet	0.00037 (0.000)	0.00003 (0.000)
Total public social expenditures	-0.00830 (0.006)	-0.02009*** (0.005)
Index of dualisation (lagged)	0.00772*** (0.003)	0.00601*** (0.002)
Index of coordination	0.54021** (0.259)	0.19515** (0.083)
Union density	0.00770* (0.004)	-0.00469*** (0.000)
Union density *Index coordination	-0.01799*** (0.006)	
Minimum wage dummy		0.09343*** (0.026)
Minimum wage*Index coordination		-0.36707*** (0.047)
Spending on R&D (Business sector)		
Spending on R&D* Index of coordination		
Wage share (% of GDP)		
Wage share * Index of coordination		
Constant	1.11730***	1.94175***
Observations	136	136
Number of id	13	13
Country FE	No	No
Year FE	Yes	Yes
R-squared within	0.28	0.33
R-squared between	0.77	0.91
R-squared overall	0.80	0.87

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

These findings are also consistent with the fact that CMEs such as Sweden that have a strong and encompassing union movement do have low levels of inequality. Indeed, the marginal effect of coordination on inequality is 0.344 (p-value 0.047) when union density is 20% (cf. Germany in 2005) but -0.552 (p-value 0.004) when union density is 60%.⁷⁹

Last but not least, recall that I argue in the second paper that replaceability is higher where coordination is low. The implication of the second paper therefore is that dualisation should have a more detrimental effect on inequality in low coordination countries than in high coordination countries. I test whether the effect of dualisation on inequality is indeed mediated by the level of coordination. The results of the regression including an interaction effect between dualisation and coordination is shown in table AA3.1 in appendix A3.2. Calculating the marginal effect of the interaction term confirms, consistent with my argument about replaceability, that a large temporary work sector has more adverse effects on inequality in low coordination countries than in high coordination countries (see table AA3.2 in appendix A3.2).

⁷⁹ These marginal effects were calculated using the margin command in Stata on the following regression: “quietly xtreg w5010 gdpgr ur open man leftc tss l.dua c.ud##c.hi i.year, vce (cluster id)” /// “margins, dydx(hi) at((mean) _all ud=20 hi=0.9)” /// “margins , dydx(hi) at((mean) _all ud=60 hi=0.9)”.

Conclusion

This paper has investigated the political, institutional and economic determinants of inequality between median and bottom gross earnings deciles. The cross-national variation in this type of inequality across Western Europe seemed at odds with the main approaches in comparative political economy. Whereas the VoC literature had underscored the potential for CMEs to be as efficient as LMEs while achieving more egalitarian outcomes, Germany is now in some respects more unequal than the UK. Similarly, the PR approach stresses the successful egalitarian achievements of social democratic Scandinavian countries. However, by 2005 Denmark had become more unequal than France, and Norway more unequal than Belgium (Table 12).

To solve this puzzle, this paper has argued that one needs to distinguish between the degree of coordination of an economy, the effect of social democratic parties in government as well as the policies they support, and the degree of inclusiveness and strength of unions. More specifically, three sets of hypotheses were tested. First, I tested the effect of labour market dualisation on inequality, and convincingly show that dualisation is associated with higher inequality. In other words, a growing unregulated temporary work sector also has adverse effects on inequality between permanent workers. Increased dualisation between insiders and outsiders therefore also exacerbates inequality between insiders.

Second, I argue that stronger unions and the control of the government are associated with lower inequality. While convincing evidence was found for unions, no

empirical support was found for the left. This is consistent with a general trend towards activation, where governments of different political leanings converge on a similar activation agenda and dualisation (Emmenegger *et al.*, 2012; Rueda, 2007), where the left increasingly disregards the interests of precarious workers.

I followed the PR approach in contending that welfare state policies are conducive to lower inequality. Policies that are traditionally associated with social democrats, such as high replacement rates have a mitigating impact on the wage inequality by increasing the reservation wages of low income workers. Similarly, institutions such as statutory national minimum wage do play a key role in reducing inequality. However, this article departed in one crucial respect concerning recommodifying welfare state policies. I argue that the shift of the welfare state away from decommodifying policies such as unemployment benefits and towards recommodifying policies such as employment incentives should be detrimental to wage inequality. In line with this expectation, my findings show that spending on employment incentives and rehabilitation have a robust positive effect on wage inequality.

The third set of hypotheses concern economic coordination. In contrast to VoC literature, I argue that economic coordination is likely to increase inequality because it increases the productivity and bargaining power of median income workers much more than of low income workers. Furthermore, the effect of economic coordination on inequality is negative only where unions are strong and encompassing and/or in the presence of national minimum wage regulations.

Overall my findings therefore qualify in important respects the effect of PR and VoC on inequality. This paper demonstrates that the link between coordination, welfare state spending and egalitarianism is not straightforward. Wage inequality at the low end of the income distribution is shown to be driven mostly by political and institutional – rather than economic – factors. The fact that coordination can actually increase inequality in the absence of inclusive institutions or interest groups has two sets of broader implications for further research. First, this calls for a reconsideration of the link between coordination and the degree of egalitarianism. Second, disentangling the effects of coordination on outcomes from those of inclusiveness may shed new light on the relationship between efficiency and equality.

CONCLUSION

“The precariat is not a class-for-itself, partly because it is at war with itself. One group in it may blame another for its vulnerability [...]. A temporary low-wage worker may be induced to see the ‘welfare scrounger’ as obtaining more [...] at his or her expense. [...] Tensions within the precariat are ... preventing them from recognising that the social and economic structure is producing their common set of vulnerabilities.”

Standing (2011) *The Precariat: The New Dangerous Class*.

This thesis has analysed the political economy determinants of labour market policies targeted at outsiders in Western Europe and their consequences for inequality between insiders in the median and bottom income deciles. European political economies have undergone profound changes in the last three decades with wide-ranging implications for their labour markets. These changes have been driven by external pressures such as globalisation in trade and finance as well as European integration, and internal shifts such as deindustrialisation and socio-economic changes.

As a result, the share of labour market outsiders has risen across Western European countries and the prevailing consensus concerning the appropriate macroeconomic and labour market policy tools have been challenged. The growing number of outsiders has increased the political and economic salience of labour market policies and institutions that target them. The main approaches in comparative political economy continue to explain the cross-national variation in traditional labour market policies such as unemployment benefits and EPL of regular workers.

However, the literature's ability to explain labour market policies that target outsiders in Europe became more limited as the interests and conditions of insiders and outsiders diverged. This thesis has therefore investigated the political and institutional determinants of labour market policies targeted at outsiders and their consequences for inequality between insiders. Outsiders are heterogeneous in their preferences and interests, therefore this broader question was tackled in three separate articles united by their focus on labour market outsiders and embedded in the emerging literature on dualisation, policy dualism and divides (Emmenegger *et al.*, 2012). Each article has addressed its own research question and presented a self-contained and empirically tested argument.

The first paper looked at the political and institutional determinants of different ALMPs targeted at unemployed workers. In the second paper, a regulatory labour market policy was considered by taking the case of EPL of temporary workers. Both articles shared a focus on government policy choices concerning outsiders and paid particular attention to the interactions between institutions and partisanship. The third paper shifted the focus to the labour market outcomes of insiders, by investigating the determinants of inequality between workers in the median and bottom deciles of the income distribution.

The rest of this concluding chapter is organised as follows. I first briefly summarise the findings of each paper. I then identify a number of broader contributions to the comparative political economy literature and discuss some potential avenues for further research.

1. Summary and findings of each paper

1.1. Paper 1 - Partisanship, welfare regimes and ALMPs in Europe

The first article was motivated by conflicting theoretical expectations concerning the role of left-wing parties in explaining cross-national differences in the level of spending on ALMPs. This raised the question of how left-wing parties in governments affect spending on ALMPs. I argued that one should look at distinct ALMPs separately since they have different economic effects and hence distinct political determinants. Political parties are also likely to be influenced by the welfare regime in which they are located when choosing which ALMPs they prefer.

Through an in-depth qualitative investigation of what different political parties have done across Europe and applying a quantitative regression analysis of the determinants of spending on different ALMPs in a sample of fifteen Western European countries, the paper yielded three main findings. First, the left does not promote policies such as employment incentives and rehabilitation because these have adverse effects on labour market insiders. This finding is consistent with the expectation of the insider-outsider literature that left-wing parties should not promote policies that benefit outsiders.

Second, the left in continental European welfare states was more favourable to direct job creation schemes than the right because these schemes benefit both insiders and outsiders. Thus, the left can indeed expand policies that benefit outsiders if they are also consistent with insiders' interests. However, in Scandinavia where there is

more capacity to expand the public sector and the labour movement is more inclusive, the left is reluctant to create temporary jobs for outsiders.

Third, training schemes are important for the efficiency of the economy and hence are driven by non-partisan dynamics, most notably the welfare state regime in which the government makes policy choices. Governments of all political stripes that are in welfare regimes that have coordinated market economies such as Scandinavia have more incentives to spend more on training.

1.2. Paper 2 - Partisanship, coordination and EPL for temporary workers in Europe

By solving the puzzle of the surprisingly good fate of temporary workers in France, the second article addressed the broader question of what determines temporary work regulations across Europe, how this affects permanent workers' welfare, and how this in turn creates the potential for cross-class coalitions between temporary and permanent workers. Whereas most European countries have been deregulating temporary work in the last three decades to find flexibility at the margin and address their competitiveness and unemployment problems, France went in the opposite direction.

I argue the left in France has an incentive to re-regulate the temporary work sector because permanent and temporary workers have overlapping interests in protecting temporary work. The high degree of interest overlap in turn results from the greater ability of employers to substitute permanent by temporary workers. Specifically, low wage coordination, general skills and the educational profile of

temporary work makes it easier for employers to use temporary workers. The fear of replaceability of permanent workers is higher; therefore they support policies that make it less attractive for employers to replace them by temporary workers.

The argument was tested using both a small N in-depth analysis of the French reforms of temporary work regulations and large N logistic regression analyses. After showing that permanent workers in France report higher fear of replacement, findings from a regression analysis showed that replaceability is indeed higher when skills are more general and wage coordination is lower. In turn, wage coordination is a strong predictor of government choices to deregulate or re-regulate temporary work, and the effect is especially strong where the left is in power. Last but not least, the study of French reforms of temporary work EPL demonstrates that the French socialist party did indeed tighten temporary work regulations in the last three decades to prevent replaceability.

1.3. Paper 3 - Power resources, coordination and wage inequality in Europe

In the third paper, the focus shifted to explain labour market outcomes and the effects of ALMPs and temporary work deregulation on these outcomes were analysed. The case of wage inequality between median and bottom income deciles workers represents a puzzle because previously egalitarian countries such as Germany and Denmark were shown to have become much more unequal. The fact that German inequality was, by 2005, higher than in the UK and that Danish inequality had become higher than in France, seems at odds with the expectations of the two main approaches

in comparative political economy. The Power Resource approach and the VoC literature would have us expect that inequality should be lower in Germany than in the UK and lower in Belgium and France than in Denmark.

Using a panel data regression analysis, the paper argues that solving this puzzle requires a disentanglement of the positive and negative effects of both welfare state policies and economic coordination. More specifically, while decommodifying policies do indeed reduce inequality, recommodifying policies such as employment incentives have adverse effects on inequality. Similarly, the deregulation - and increased share of temporary work - has adverse effects on inequality between permanent workers.

Moreover, where economic coordination becomes less inclusive, low income workers are excluded from its beneficial egalitarian effects. Thus, economic coordination is associated with lower inequality only in high union density countries or where the government intervenes in the labour market through minimum wage regulations. The findings therefore identify the conditions under which the expectations of Power Resource approach and the VoC literature continue to hold.

Lastly, by considering the impact of the dependent variables of the first and second articles of this thesis, the findings from the third paper demonstrate the distributive relevance of these dependent variables. Specifically, spending on employment incentives and increased labour market dualisation are associated with greater inequality. The results from the third article also further confirm the argument

made in the first paper that employment incentives have adverse effects on wage inequality between insiders in the median and bottom income deciles.

2. Four broader contributions

By confronting the main theories in comparative political economy with the emerging phenomenon of dualisation and the rise of outsiders, several new research avenues open up. Considered together, the arguments and findings of the three papers lead to four broader contributions to the existing literature.

First, the three articles point to the relevance of systematically investigating the link between the determinants of dualisms in welfare state policies and how these in turn influence the extent of divisions between workers. Second, they contribute to a better understanding of the interplay between the interests of actors such as left-wing parties and institutions such as welfare regimes in determining labour market policies. Consistent with the expectations of historical institutionalism, countries' institutions such as coordination and welfare regimes both constrain and determine actors' preferences.

A third broader contribution is that the welfare state may not always be in the interests of labour and it therefore cannot be assumed that the left necessarily spends more on all welfare state policies, regardless of their actual effects. Conversely, right-wing parties' interests may be consistent with certain welfare state policies. Seen in this light, further research should investigate whether enduring welfare state spending

is driven by the fact that all parties can find ‘something they like’ rather than the traditional lock-in and feedback effects of policies. Finally, the findings of this thesis suggest that the relation between economic coordination and egalitarianism is more complex than is often recognised with theoretically important consequences for the relation between efficiency and equity in Europe.

2.1. Dualisation, dualism and divides

Dualisation is a multi-dimensional process, where one should distinguish between the analysis of its process, the policy dualism that results and the divisions that this generates (Emmenegger *et al.*, 2012). This thesis has taken as its starting point that distinct dimensions of dualisation need to be considered separately.

The findings from the second and third papers show the analytical value of distinguishing between the determinants of policy dualism and the effect this dualism may have on the divide between workers that emerge. Specifically, the second paper shows that temporary work deregulation depends on the choice of political parties operating under different institutional contexts. The third paper in turn uncovers the impact of temporary work deregulation on wage inequality between median and bottom income deciles. The extent to which insiders are affected by the working conditions of outsiders therefore determines policy choices that may have significant implications for distributive outcomes among insiders. Thus, this thesis confirms that there are linkages between different spheres of the economy as well as between developments in the labour market and policies (cf. Palier and Thelen, 2010).

Moreover, when analysing the determinants and consequences of dualisation, the interests of insiders and outsiders cannot be assumed to be constant across various policy domains. As the first and third papers show, certain policies are consistent with both insiders and outsiders' interests whereas others may be detrimental to insiders. The preferences of left-wing parties for policies will in turn be influenced by the particular impact of the policy under consideration. Like the seminal research of Rueda (2007), the findings of this thesis emphasise the relevance of insiders' preferences and show that the left does not necessarily support all labour market policies.

However, the findings of this thesis also suggest that the overlap between insiders and outsider preferences is potentially larger than assumed by earlier literature. Future research should further investigate the political and institutional determinants of cross-national variation in policy dualism and how this in turn shapes the evolution and diversity of divides in Western Europe. Last but not least, further research should investigate the extent to which political parties respond to the demands and preferences of insiders and outsiders and how they exploit insider-outsider divides strategically in the electoral arena.⁸⁰

⁸⁰ At the time of writing, new promising research projects are currently emerging to fill this gap (see for instance the work of the ECPR Political Economy standing group which recently hosted a workshop on "Socio-Economic Inequalities and Political Cleavages in Post-Industrial Societies" convened by Jose Fernandez Albertos, Silja Hausermann, and Achim Kemmerling in March 2013 in Mainz, Germany).

2.2. Actors, institutions and labour market policies

A second theme that runs through the three articles concerns the continuing relevance of political parties, despite the various pressures that governments are subjected to (Boix, 1998; Garrett, 1995; Bonoli, 2008; Cameron, 1984; Hibbs, 1977). In contrast to some literature that contends partisan differences are fading (e.g. Huber and Stephens, 2001), my analysis of the recent period shows partisanship continues to matter.

Indeed, the findings of both the first and second paper demonstrate that partisanship continues to matter even for – the ‘hard case’ of – specific policy outputs that target outsiders such as spending on different ALMPs and temporary work deregulation. In addition, the relevance of partisanship is not merely limited to supply-side policies as shown by the significant effect of the left on direct job creation schemes in the first paper (cf. Boix, 1998). To the extent that welfare state policies continue to affect important distributional outcomes, the relevance of political contestation for office therefore remains.

Moreover, consistent with the expectations from the institutionalist literature, the preference and ability of political actors are crucially shaped by the institutional context in which they operate and how it shapes the preferences of their constituents. Thus, the policy choices of left-wing parties are contingent on both the welfare regimes and the degree of economic coordination of the countries in which they are located. The findings of the articles suggest these latter institutions affect both the scope and preferences of core left-wing constituents towards labour market policies.

Throughout this thesis, the focus on interests and institutions followed loosely a historical institutionalist approach (Hall and Taylor, 1996; Hall, 1997; Steinmo *et al.*, 1992). Indeed, the findings suggest that institutions do not merely act as constraints but also shape the interests and preferences of actors. For instance, the pressure to find flexibility at the margin is mediated by how institutions shape the effects of reforms on the electorate (cf. temporary work deregulation in the second article).

In some cases where policies have important efficiency implications (e.g. training in the first article) the institutional structure even fully determines actors' choices. Thus, the extent to which employers and the left are 'protagonists' or 'consenters' of welfare state policies (Korpi, 2006) depends on the specific policy under consideration. Further research should therefore further analyse the conditions under which institutions constrain, shape or fully determine actors' choices.

2.3. Welfare state expansion is not always in the interests of the Left

The findings from the first and second paper also shed new light on two claims generally associated with the Power Resource approach (Huber and Stephens, 2001; Korpi, 1983; Korpi and Palme, 2003; Huo *et al.*, 2008): (1) that welfare state policies are in the interests of labour, and; (2) that they are therefore supported by left-wing parties. In contrast to the first claim, the third paper demonstrates that some labour market policies such as employment incentives may have detrimental effects on wage inequality because they recommodify labour. As a consequence, such policies are not

necessarily in the interest of labour, and hence may actually be opposed by left-wing parties.

Thus, left-wing parties may not favour all welfare state policies and this is not only because they are increasingly constrained by external pressures such as globalisation, nor only because they are indifferent to the interests of outsiders. Conversely, even right-wing political parties may actually promote the expansion of the welfare state in certain policy domains. Previous literature has emphasised the role of Christian democrat support for the development of the welfare state in Europe (Huo *et al.*, 2008; Castles, 1994; Castles, 1989; Castles and Obinger, 2007; Kersbergen, 1995). Employment incentives schemes may on the other hand be supported by right-wing parties because they are consistent with their market-enhancing agenda. In countries where the welfare state is well-developed and the left is strong, right-wing political parties may also have an incentive to spend more on the welfare state to “compensate for the lack of public trust” in their policy agenda (Jensen, 2010: 282).

However, opposing welfare state expansion may be much harder for the left than opposing retrenchment. This is because right-wing parties are able to play outsiders against insiders and frame policies such as in-work benefits as ‘progressive’ because they *prima facie* benefit low income workers.⁸¹ If this is true, the overall resilience of welfare state spending attributed to path dependence by the new politics of the welfare state (e.g. Pierson, 2001) may in fact be driven by the right’s preference

⁸¹ I have shown elsewhere that this was for instance the case in France with the recent adoption by the conservatives of an in-work benefit scheme (Vlandas, 2013c).

for different welfare state policies rather than outright retrenchment. Further research should examine other recent instances of welfare state expansion undertaken by the right, such as in-work benefits, and the implications this has for the resilience of welfare states in Europe.

2.4. Coordination and egalitarianism

A final broader contribution that emerges from the third paper of this thesis is that one should distinguish between the coordinating as well as efficiency improving functions of institutions, from their effects on egalitarian outcomes which depend crucially on institutions' inclusiveness. Where coordination becomes less inclusive it may actually increase inequality between segments of the economy that are coordinated and those that are not. In other words, non-inclusive coordination may not only have adverse effects on efficiency (cf. Calmfors and Driffill, 1988) but also on equality.

This finding echoes Thelen's (2012) and Swank's *et al.* (2008: 8) recent contributions that emphasise the necessity to conceptually distinguish between coordination and solidarity or egalitarianism. Thelen's framework further suggests that capitalism may evolve along both dimensions so that lower coordination can occur while equality increases; and conversely, continued coordination may involve falling levels of solidarity.

As an illustration of how this argument may be a worthwhile avenue for future research, one can compare the evolution of unemployment rates on the one hand, and

wage inequality between the median and bottom earnings deciles in Europe on the other. One can distinguish between four cases or potential paths along two dimensions: the degree of efficiency of an economy as captured by the unemployment rate, and the degree of egalitarianism as captured by wage inequality.

For instance, Germany has become more unequal but remained as efficient between 1994 and 2007: wage inequality between the median and bottom income deciles increased from 1.71 to 1.93, while unemployment barely moved from 8.49% to 8.71%.⁸² By contrast, over the same period France and the UK seem to have become both more efficient and more egalitarian: inequality decreased from 1.59 to 1.47 in France and from 1.83 to 1.81 in the UK while unemployment fell from 10.83% to 7.94% in France and from 9.61% to 5.3% in the UK. Some countries such as Finland and Denmark became more efficient but marginally less egalitarian: inequality rose from 1.4 to 1.45 while unemployment fell from 16.63% to 6.86% in Finland, while in Denmark inequality rose from 1.47 to 1.55 while unemployment fell from 6.9% to 4%.⁸³

Using Thelen's (2012: 146) conceptualisation, Germany therefore seems to have retained its "strategic employer coordination" while becoming more dualised and less inclusive, whereas France has undertaken a strategy of embedded flexibilisation combining liberalisation and higher equality. Thus, distinguishing between the degree of coordination and the inclusiveness of coordinating institutions may help make sense

⁸² Source: OECD Labour Force Statistics (2008).

⁸³ Note data for wage inequality in Denmark is missing for 1994; the closest available year is 1996.

of the movements of European countries along various efficiency-equality paths, for instance in terms of unemployment and wage inequality. The relation between coordination and inclusiveness and how this determines various measures of inequality and performance would also represent a worthwhile avenue for further research.

Conclusion

The diversity in labour market policies, institutions and outcomes has been and will remain an important topic of inquiry for comparative political economy. European labour markets have undergone profound changes in the past three decades. Most notably, the share of outsiders has risen tremendously across Western European countries, which has resulted in a number of challenges to existing institutions and political organisations. Policies and institutions targeting insiders and outsiders can no longer be assumed to be driven by similar political dynamics nor can they be assumed to be equally conducive to the interests of insiders and outsiders.

The labour market position of outsiders is undermining the ability of welfare states to cope effectively with the risks that individuals face. Resilient and large-scale unemployment is putting strain on unemployment insurance systems designed to cope with transitory risks. The growth of temporary workers with discontinuous attachments to the labour market undermines the logic of social insurance, as these workers are unlikely to work sufficiently to be eligible to these benefits. This new

‘reserve army’ of precarious workers also challenges the ability of unions to organise the disadvantaged workers and, as a result, the power resources of labour.

This thesis has confronted the main approaches in comparative political economy with this reconfiguration of labour markets. More specifically, the three papers in this thesis have addressed the overarching question of the political as well as institutional determinants of outsiders’ conditions and their consequences for the extent of inequality between insiders. As the previous sections make clear, taking labour market dualisation seriously yields a number of theoretical contributions and suggests fruitful avenues for further research.

Welfare state policies and economic coordination are no longer automatically in the interests of labour – if indeed they ever were. While having a large welfare state and a highly coordinated economy may be conducive to – or even necessary for the achievement of – labour’s interests, these are clearly not sufficient conditions. Whether welfare state policies recommodify or decommodify labour and the degree of inclusiveness of economic coordination are crucial intermediary factors to take into account. The conditions under which different welfare state policies and structures of economic coordination are conducive to labour’s interests will need to be further investigated.

Perhaps not surprisingly then, the left does not support all welfare state policies and right-wing political parties may have an interest in increasing expenditures on recommodifying policies, rather than pushing for outright retrenchment. Seen in this light, the resilience of the welfare state is a direct

consequence of partisan differences concerning the design of welfare states rather than its level of spending *per se* or the mere presence of policy feedback, path dependence and institutional lock-in effects that the literature has traditionally emphasised.

Moreover, parties of the left – and potentially even of other ideological stripes – are increasingly forced to navigate this new electoral environment. We still know comparatively little about the extent to which political parties of the left specifically respond to the needs of outsiders and whether this indeed clashes with insiders' preferences. A fruitful emerging research agenda entails looking at the political supply by various parties to different outsider groups and how this political supply in turn affects various policy outputs when parties take control of the government.

While it is important to conceptually differentiate between insiders and outsiders, it does not follow that these groups of workers necessarily have contradicting interests. The degree of overlap between the interests of insiders and outsiders depends crucially on various institutions such as the level of economic coordination but also on more structural factors such as workers' skills.

Insider-outsider divisions weaken labour's organisational power not only because it creates a drift within labour but also because outsiders belong to a much more heterogeneous group than insiders. As a result, as the share of the workforce increasingly belongs to the outsider group, labour is significantly weakened. This problem is further accentuated by the fact that insider-outsider divisions also entail strong centrifugal forces. As the divides between insiders and outsiders grow through

a process of heightened labour market dualisation, this in turn exacerbates inequality between insiders themselves.

As the current economic crisis unfolds, unemployment remains high and most job creation occurs in temporary contracts. If anything, outsiders are therefore likely to become a much larger class. The political and institutional determinants of insider-outsider dynamics and their consequences for labour market policies and outcomes is therefore likely to remain a central line of inquiry for research in comparative political economy for the foreseeable future.

Appendix

This appendix is separated in three sub-sections where each deals with the first, second and third paper, respectively. A list of Tables for each paper is provided at the beginning of each paper specific appendix.

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Appendix A1.1

Table A1.1: OECD Description of different ALMPs

Full name	Description
Direct job creation	These programmes create additional jobs - usually of community benefit or socially useful, and usually in the public or non-profit sector - for the long-term unemployed or persons otherwise difficult to place. The majority of the labour cost is normally covered by the public finance. Provisions for lifetime sheltered work in a non-productive environment should not be included.
Employment incentives	<p>1. Recruitment incentives are programmes making payments for a limited period only to facilitate the recruitment of unemployed persons and other target groups into jobs where the majority of the labour cost is covered by the employer. They include payments to individuals that are conditional upon the take-up of a new job (back-to-work bonus, mobility/relocation allowance or similar) only if they are targeted (e.g. restricted to the long-term unemployed).</p> <p>2. Employment maintenance incentives are similar but facilitate continuing employment, in a situation of restructuring or similar. Generally-available in-work benefits for low-income groups should not be included.</p>
Training	<p>1. Institutional training refers to programmes where most of the training time (75% or more) is spent in a training institution (school/college, training centre or similar).</p> <p>2. Workplace training refers to programmes where most of the training time (75% or more) is spent in the workplace.</p> <p>3. Alternate training (formerly called Integrated training) refers to programmes where training time is evenly split between a training institution and the workplace.</p> <p>4. Special support for apprenticeship refers to programmes providing incentives to employers to recruit apprentices from labour market policy target groups, or training allowances for particular disadvantaged groups.</p>
Public Employment Services (PES) and administration	1.1 Placement and related services include open information services, referral to opportunities for work, training and other forms of assistance, counselling and case management of jobseekers, financial assistance with the costs of job search or mobility to take up work, and job brokerage and related services for employers, if spending on these functions can be separately identified. Services provided by the main public employment service and by other publicly-financed bodies are included.

Full name	Description
	<p>1.2 Benefit administration expenditure includes the budget of institutions that manage the unemployment and early retirement benefits reported in Categories 8 and 9, if this spending can be separately identified.</p> <p>1.3. Other expenditure includes the budget of institutions that provide placement and related services (if the relevant spending could not be separately reported in Category 1.1 above); institutions that manage labour market programmes in Categories 2 to 7 below (except for costs already included in these categories); and institutions that administer the benefits in Categories 8 and 9 below (if these costs could not be separately identified in Category 1.2 above). However if these institutions' budgets cover functions that are outside the scope of this database (neither placement and related services, nor the management of active or passive labour market programmes within the scope of Categories 2 to 9), estimated spending on those functions should be excluded.</p>
Job rotation and job sharing	<p>3.1 Job rotation refers to schemes promoting the full substitution of an employee by an unemployed person or a person from another target group for a fixed period.</p> <p>3.2 Job sharing refers to schemes promoting the partial substitution of an employee by an unemployed person or a person from another target group.</p>

Source: OECD Employment outlook.

Table A1.2: Average spending on different ALMPs in each country

Country	Direct job creation	Employment incentives and rehabilitation	Training
Austria	0.0335	0.0678	0.2165
Belgium	0.5000	0.2539	0.1604
Denmark	0.0464	0.7200	0.5300
Finland	0.2652	0.1817	0.4061
France	0.2170	0.2000	0.3626
Germany	0.2043	0.1796	0.4000
Greece	0.0023	0.0618	0.0695
Ireland	0.3213	0.0622	0.3826
Italy	0.0233	0.1650	0.2189
Netherlands	0.1487	0.6035	0.1778
Portugal	0.0322	0.1509	0.1878
Spain	0.0887	0.2017	0.1548
Sweden	0.1991	0.8283	0.6148
UK	0.0435	0.0270	0.1670

Table A1.3: Dependent variables by country

Austria	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	0.4513044	0.1428701	0.26	0.72
Public Employment Services	23	0.1313043	0.0254602	0.1	0.17
Training	23	0.2165217	0.0863191	0.1	0.4
Employment incentives	23	0.0408696	0.0210871	0.01	0.09
Employment rehabilitation	23	0.0269565	0.0087567	0.01	0.04
Direct job creation	23	0.0334783	0.0107063	0.01	0.04

Belgium	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	1.147826	0.0703211	1.05	1.31
Public Employment Services	23	0.1782609	0.0180031	0.15	0.21
Training	23	0.1604348	0.0234479	0.11	0.21
Employment incentives	23	0.1247826	0.0978343	0.02	0.37
Employment rehabilitation	23	0.1291304	0.0190485	0.1	0.17
Direct job creation	23	0.5	0.1184752	0.34	0.81

Denmark	Obs	Mean	Std. Dev.	Min	Max
ALMPs	22	1.51	0.3084832	1.01	1.89
Public Employment Services	22	0.1727273	0.0977938	0.08	0.33
Training	22	0.53	0.1959592	0.25	0.85
Employment incentives	22	0.3863636	0.1203386	0.13	0.69
Employment rehabilitation	22	0.3336364	0.147827	0.13	0.57
Direct job creation	22	0.0463636	0.0540322	0	0.18

Finland	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	1.06	0.2991047	0.73	1.63
Public Employment Services	23	0.1617391	0.0353749	0.1	0.23
Training	23	0.406087	0.1236468	0.25	0.68
Employment incentives	23	0.093913	0.0384636	0.04	0.18
Employment rehabilitation	23	0.0878261	0.0175697	0.05	0.12
Direct job creation	23	0.2652174	0.1644238	0.07	0.62

France	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	0.9730435	0.2134018	0.6	1.23
Public Employment Services	23	0.173913	0.0367719	0.13	0.24
Training	23	0.3626087	0.0597888	0.27	0.48
Employment incentives	23	0.1421739	0.0732342	0.01	0.3
Employment rehabilitation	23	0.0578261	0.0073587	0.05	0.07
Direct job creation	23	0.2169565	0.1203191	0.04	0.4

Germany	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	1.04	0.2671567	0.45	1.49
Public Employment Services	23	0.2213043	0.0280104	0.18	0.29
Training	23	0.4	0.143432	0.04	0.66
Employment incentives	23	0.0634783	0.0199109	0.03	0.11
Employment rehabilitation	23	0.116087	0.0362741	0.01	0.15
Direct job creation	23	0.2043478	0.1089131	0.06	0.41

Greece	Obs	Mean	Std. Dev.	Min	Max
ALMPs	13	0.23	0.0787401	0.16	0.4
Public Employment Services	13	0.0815385	0.0315822	0.04	0.12
Training	22	0.0695455	0.0530478	0.02	0.21
Employment incentives	23	0.0617391	0.0352462	0.02	0.21
Employment rehabilitation	23	0	0	0	0
Direct job creation	23	0.0021739	0.0042174	0	0.01

Ireland	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	0.9904348	0.2266049	0.62	1.35
Public Employment Services	23	0.1991304	0.0831709	0.12	0.35
Training	23	0.3826087	0.1735254	0.21	0.72
Employment incentives	23	0.0591304	0.0439951	0.01	0.13
Employment rehabilitation	23	0.0030435	0.0047047	0	0.01
Direct job creation	23	0.3213043	0.1581514	0.08	0.65

Italy	Obs	Mean	Std. Dev.	Min	Max
ALMPs	4	0.5375	0.0788987	0.45	0.63
Public Employment Services	4	0.0875	0.005	0.08	0.09
Training	18	0.2188889	0.0377124	0.17	0.3
Employment incentives	18	0.165	0.1168836	0.03	0.42
Employment rehabilitation	18	0	0	0	0
Direct job creation	18	0.0233333	0.0232632	0	0.07

Netherlands	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	1.37913	0.1255502	1.08	1.58
Public Employment Services	23	0.4478261	0.0610482	0.36	0.54
Training	23	0.1778261	0.0591575	0.09	0.28
Employment incentives	23	0.0291304	0.0192857	0	0.08
Employment rehabilitation	23	0.5743478	0.0566349	0.47	0.68
Direct job creation	23	0.1486957	0.0932886	0.02	0.29

Portugal	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	0.5069565	0.1547853	0.17	0.69
Public Employment Services	23	0.1208696	0.0292191	0.07	0.18
Training	23	0.1878261	0.0946744	0.01	0.35
Employment incentives	23	0.1152174	0.0499881	0.02	0.2
Employment rehabilitation	23	0.0356522	0.0107982	0.01	0.05
Direct job creation	23	0.0321739	0.0124157	0.01	0.05

Spain	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	0.6334783	0.1558148	0.33	0.85
Public Employment Services	23	0.0969565	0.020766	0.06	0.13
Training	23	0.1547826	0.0448097	0.03	0.23
Employment incentives	23	0.1791304	0.0935129	0.06	0.34
Employment rehabilitation	23	0.0226087	0.0054082	0.01	0.03
Direct job creation	23	0.0886957	0.0303471	0.04	0.13

Sweden	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	1.954348	0.5701182	1.12	3.04
Public Employment Services	23	0.2556522	0.0251949	0.22	0.31
Training	23	0.6147826	0.2263117	0.18	1.06
Employment incentives	23	0.516087	0.1555266	0.37	0.88
Employment rehabilitation	23	0.3121739	0.0863374	0.18	0.45
Direct job creation	23	0.1991304	0.1898543	0	0.58

UK	Obs	Mean	Std. Dev.	Min	Max
ALMPs	23	0.4678261	0.187664	0.22	0.84
Public Employment Services	23	0.2208696	0.0771016	0.13	0.4
Training	23	0.1669565	0.1372931	0.02	0.41
Employment incentives	23	0.0130435	0.005588	0.01	0.03
Employment rehabilitation	23	0.013913	0.0049901	0.01	0.02
Direct job creation	23	0.0434783	0.0859497	0	0.28

Table A1.4: Description of independent variables

Name of variable	Description	Source
Harmonised Unemployment rate	<p>The harmonised unemployment rates shown in this Table give the numbers of unemployed persons as a percentage of the civilian labour force. Civilian labour force consists of civilian employees, the self-employed, unpaid family workers and the unemployed. The definitions of employment and unemployment conform with the definitions adopted by the 13th Conference of Labour Statisticians (generally referred to as the ILO guidelines) with the exception that employment and unemployment estimates are based on labour force surveys which cover only private households and exclude all people living in institutions. Under these guidelines the unemployed are persons of working age who, in a specified period, are without work and are both available for and are actively seeking work. The Statistical Office of the European Communities (Eurostat) gave a more precise definition of unemployment through the Commission Regulation (EC), no.1897/2000 in September 2000. Details about this new definition and its implementation are available on Eurostat Internet site: http://europa.eu.int/comm/eurostat/.</p>	OECD Annual Labour Force Statistics database.
GDP growth	<p>Period covered: 1960-2008.</p> <p>Missing: Australia: 1991; Germany: 2002; Greece: 1990; Italy: 2003; New Zealand: 1990; Spain: 1979; Luxembourg and Portugal: 2008.</p> <p>Source: Until 1970: OECD Economic Outlook, various years; 1971 onwards: OECD Factbook 2010: Economic, Environmental and Social Statistics - Online Version, http://new.sourceoecd.org/ (Download: 2010-06-11).</p> <p>Note: UK 1971-1980: data is taken from OECD Factbook 2009.</p>	Comparative Political Data Set I, 1990-2008

Name of variable	Description	Source
Cabinet composition	Cabinet composition (Schmidt-Index): (1) hegemony of right-wing (and centre) parties (gov_left=0), (2) dominance of right-wing (and centre) parties(gov_left<33.3), (3) balance of power between left and right/centre (33.3<gov_left<66.6), (4) dominance of social-democratic and other left parties(gov_left>66.6), (5) hegemony of social-democratic and other left parties (gov_left=100).Calculations of authors based on gov_right1, gov_cent1, and gov_left1.Period covered: 1990-2008. Missings: Bulgaria 1993/94 (non-party government), Italy 1995 (caretakergovernment). Information was not available for Romania 1990 and Slovenia1992. Source: Own calculations according to Schmidt (1992).	Comparative Political Data Set III, 1990-2008
Trade Union density	Trade union density corresponds to the ratio of wage and salary earners that are trade union members, divided by the total number of wage and salary earners (OECD Labour Force Statistics). Density is calculated using survey data, wherever possible, and administrative data adjusted for non-active and self-employed members otherwise.	OECD and J.Visser, ICTWSS database (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts: http://www.uva-aias.net/)
Employment protection legislation overall	Additional costs for collective dismissals: most countries impose additional delays, costs or notification procedures when an employer dismisses a large number of workers at one time. This measure includes only additional costs which go beyond those applicable for individual dismissal. It does not reflect the overall strictness of regulation of collective dismissals, which is the sum of costs for individual dismissals and any additional cost of collective dismissals	OECD Employment database

Name of variable	Description	Source
Coordination of wage bargaining	<p>5 = economy-wide bargaining, based on a) enforceable agreements between the central organisations of unions and employers affecting the entire economy or entire private sector, or on b) government imposition of a wage schedule, freeze, or ceiling.</p> <p>4 = mixed industry and economy-wide bargaining: a) central organisations negotiate non-enforceable central agreements (guidelines) and/or b) key unions and employers associations set pattern for the entire economy.</p> <p>3 = industry bargaining with no or irregular pattern setting, limited involvement of central organizations and limited freedoms for company bargaining.</p> <p>2 = mixed industry- and firm level bargaining, with weak enforceability of industry agreements</p> <p>1 = none of the above, fragmented bargaining, mostly at company level ; note - before 1990: West Germany</p>	ICTWSS database
Openness	(Import of goods and services + export of goods and services at current price in national currency) / Gross domestic product at current market prices (UVGD) in national currency	OECD Main Economic Indicators database
Deindustrialisation	Following Iversen and Soskice; deindustrialization. 100 minus the sum of manufacturing and agricultural employment as a percentage of the working-age population. - OECD, Labour Force Statistics (Paris: OECD, various years).	OECD Structural Analysis Database and Labour Force Statistics
Deficit	<p>Annual deficit (government primary balance) as a percentage of GDP.</p> <p>Period covered: 1970-2008.</p> <p>Missing: Denmark: 1970; Luxembourg and Switzerland: 1970-89; New Zealand 1970-85; Portugal: 1970-76.</p> <p>Source: OECD, OECD Economic Outlook Database, Economic Outlook: Annual and quarterly data, Vol. 2009, release 03, http://new.sourceoecd.org/ (Download: 2010-02-03).</p>	Comparative Political Data Set I, 1990-2008

Table A1.5: Summary of the determinants of ALMPs

Author and Independent variables	Swank (2007)	Van Vliet and Koster (2008)	Bonoli (2008)	Franzese and Hays (2006)	Rueda (2006)	Rueda (2007)	Huo et al (2008)	Armingeon (2006)	Swank and Martin (2001)	Martin and Swank (2004)	Swank and Martin 2010	Dahlstrom, Lindvall, Rothstein (2009)	Gaston and Rajaguru (2004)	Traxler and Berndt (2009)	Boix (1998)
Unemployment	-	-	+	-	+	0	+	-	+	0	+	0	0	n	+
Openness	+	0	+	+	+	+	0	n	+	-	+(a)	+	0	n	n
Deindustrialisation	+	n	n	+	n	n	n	n	n	+	0	n	n	n	n
EU	+	+	n	n	n	n	n	+	n	n	n	n	n	n	n
EMU	n	-	n	n	n	n	n	n	n	n	n	n	n	n	n
Left	+	0	-	0	0	-	+	0	+	+	+	0	0	0	+
Right	n	-	+(b)	0(c)	n	n	0(c)	n	n	n	-(c)	+(c)	n	n	n
Unions	n	n	n	0	+	0	n	n	n	n	n	+	+	+	+(l)
Employer	n	n	n	n	n	n	n	n	+	+	+	n	n	n	n
GDP growth	+	-	n	n	-	-	n	+	n	n	n	-	n	0	n
GDP level	n	+	0	-	n	n	+	n	-	0	-	0	n	n	n
Coordination	+(d)	+(e)	n	n	0(g)	0	n	n	+(i)	+(i)	+ or - (k)	+(j)	n	+(g)	n
Public social expenditures	n	n	+	+(f)	n	n	n	n	n	n	n	n	n	n	n
Debt	n	+(h)	n	n	-	-(h)	n	n	n	n	n	-	- OR +	n	n
Employment protection	n	n	n	n	-	0	n	n	n	n	n	n	n	n	n

Notes + = positively significant; - = negatively significant; 0 = not significant; n = not considered

(a) Capital mobility but not significant with trade openness

(b) Religious parties in government found significant

(c) Christian democratic parties

(d) Only sector coordination found significant; national coordination insignificant

(e) tripartite council variable found significant

(f) Government consumption

(g) Bargaining centralisation or coverage

(h) Government deficit

(i) Employer coordination

(j) Bargaining coordination

(k) Macroccorporatism

(l) Organisational power of labour index partly based on unionisation of labour force

Legend Where Variable is positively (+) or negatively (-) significant in at least one specification; 0 implies variable was not significant; n suggests it was not considered in the study

Table A1.6: Stationarity tests of dependent variables

Im-Pesaran-Shin unit-root test for:	ALMPs (a)	Public Employment services (a)	Training	Employment incentives	Employment rehabilitation (b)	Direct Job creation
Number of panels	14	14	15	15	13	15
Avg. number of periods	22.21	22.21	22.53	22.6	22.92	22.6
Pvalue	0.6275	0.7931	0.2999	0.2731	0.7253	0.3754
P-value (with time trend)	0.7602	0.0115	0.0404	0.0982	0.0049	0.6625
P-value (first difference)	0	0	0	0	0	0
Hypotheses:	Ho: All panels contain unit roots					
	Ha: Some panels are stationary					

Note: the stata command that used is “xtunitroot ips”.

The null hypothesis of non-stationarity is rejected for employment incentives and rehabilitation as well as for training. However, it is not rejected for Direct Job Creation.

Figure A1.1: The evolution of partisanship in EU15

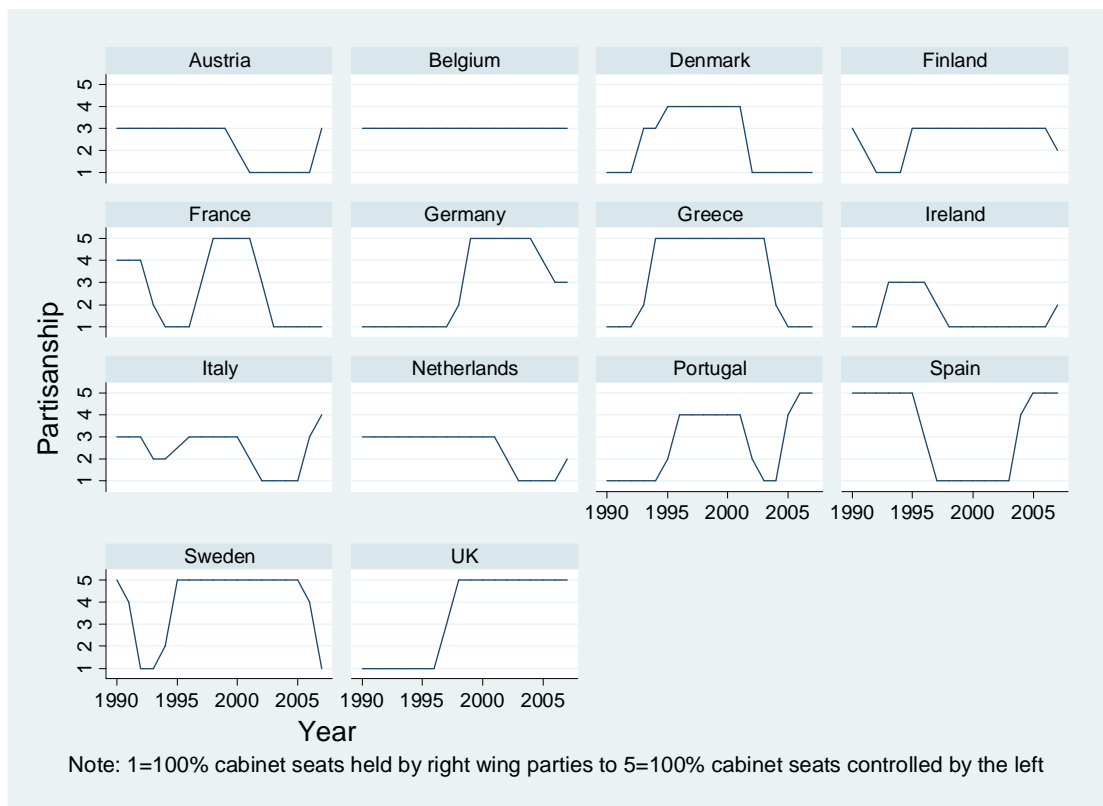


Table A1.7: Hausman test results for regression with each dependent variable

Employment incentives and rehabilitation

Test: Ho: difference in coefficients not systematic

$$\chi^2(22) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 0.11$$

$$\text{Prob}>\chi^2 = 1.0000$$

Direct job creation

Test: Ho: difference in coefficients not systematic

$$\chi^2(22) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 1.80$$

$$\text{Prob}>\chi^2 = 1.0000$$

Table A1.8: F-test results for country dummies

F-test on country dummy
Employment incentives and rehabilitation
chi2(10) = 10895.54
Prob > chi2 = 0.0000
Direct job creation
chi2(11) = 1849.46
Prob > chi2 = 0.0000
Training
chi2(11) = 1391.58
Prob > chi2 = 0.0000

Table A1.9: Results of Heteroskedasticity tests for regression with each dependent variable

Employment incentives and rehabilitation	
Likelihood-ratio test	LR chi2(13) = 268.95
(Assumption: . nested in heterosupplyfe)	Prob > chi2 = 0.0000
Direct job creation	
Likelihood-ratio test	LR chi2(13) = 338.66
(Assumption: . nested in heterodemandfe)	Prob > chi2 = 0.0000
Training	
Likelihood-ratio test	LR chi2(13) = 138.14
(Assumption: . nested in heteroHKfe)	Prob > chi2 = 0.0000

Note: Null hypothesis of homoskedastic disturbances is rejected for supply, demand and training ALMPs.

Table A1.10: Results of Auto-correlation tests for regression with each dependent variable

Employment incentives and rehabilitation
Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
$F(1, 13) = 55.077$
Prob > F = 0.0000
Direct job creation
Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
$F(1, 13) = 229.393$
Prob > F = 0.0000
Training
Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
$F(1, 13) = 176.615$
Prob > F = 0.0000

Note: Null hypothesis of no autocorrelation is rejected for all three cases.

Table A1.11: Results of cross-sectional tests for regression with each dependent variable

Cross-sectional dependence
Employment incentives and rehabilitation
Pesaran's test of cross-sectional independence = -0.871, Pr = 1.6162
Direct job creation
Pesaran's test of cross-sectional independence = -0.647, Pr = 1.4822
Training
Pesaran's test of cross-sectional independence = -1.878, Pr = 1.9396

Note: Null hypothesis of no cross-sectional dependence across panels is rejected.

Table A1.12: Employment incentives and rehabilitation – robustness to inclusion of other variables

Variable included	Union density	Employment Protection Legislation	Wage coordination	Spending on Passive Labour Market Programmes as % of GDP
Government partisanship	-0.0330***	-0.0328***	-0.0319***	-0.0253**
Minimal welfare regime dummy	-0.3776**	-0.4402***	-0.4237***	-0.3329***
Continental welfare regime dummy	-0.2345	-0.2990***	-0.2947***	-0.2702***
Minimal*partisanship	0.0321**	0.0310**	0.0302**	0.0217*
Continent*Partisanship	0.0309**	0.0310**	0.0295**	0.0219*
Harmonised Unemployment (lagged one period)	0.0011	0.0014	0.0018	-0.0077*
GDP growth (lagged one period)	0.0012	0.0012	0.0008	0.0026
Union density	0.0011			
Employment Protection Legislation		0.0363**		
Wage coordination			0.0179	
Spending on Passive Labour Market Programmes as % of GDP				0.0740***
Constant	0.4402**	0.4513***	0.4602***	0.4525***
N	242	242	242	241
r2	0.2938	0.3031	0.3149	0.357

Note: * p<.1; ** p<.05; *** p<.01; Inclusion of union density (positive significant effect), Employment Protection Legislation (positive significant effect – in contradiction with Rueda’s finding), wage coordination (no significant effect) and passive labour market programmes (positive significant effect) does not affect my results for the regression of Supply ALMPs.

Table A1.13: Direct Job creation – robustness to inclusion of other variables

Variable included	Union density	Employment Protection Legislation	Wage coordination	Spending on Passive Labour Market Programmes as % of GDP
Government partisanship	-0.0229**	-0.0217**	-0.0214**	-0.0183**
Minimal welfare regime dummy	0.1600**	-0.0617	-0.064	-0.0357
Continental welfare regime dummy	0.3184***	0.0895	0.0772	0.0894
Minimal*partisanship	0.0260***	0.0241**	0.0228**	0.0181*
Continent*Partisanship	0.0244**	0.0235**	0.0229*	0.0191*
Harmonised Unemployment (lagged one period)	0.0032	0.0031	0.0046	0.0008
GDP growth (lagged one period)	-0.0054**	-0.0056**	-0.0056**	-0.0042*
Union density	0.0052***			
Employment Protection Legislation		-0.0242*		
Wage coordination			0.0142*	
Spending on Passive Labour Market Programmes as % of GDP				0.0319**
Constant	-0.2955***	0.1172	0.0146	0.0328
N	242	242	242	241
r2	0.2856	0.2633	0.265	0.265

Note: * p<.1; ** p<.05; *** p<.01; Inclusion of union density (positive significant effect), Employment Protection Legislation (negative significant effect), wage coordination (positive significant effect) and passive labour market programmes (positive significant effect) does not affect my results for the regression of Demand ALMPs.

Table A1.14: Training – robustness to inclusion of other variables

Variable included	Union density	Employment Protection Legislation	Wage coordination	Spending on Passive Labour Market Programmes as % of GDP
Government partisanship	0.0068	0.0072	-0.0214**	0.0121
Minimal welfare regime dummy	-0.2986***	-0.3064***	-0.064	-0.2537***
Continental welfare regime dummy	-0.1794***	-0.1874***	0.0772	-0.1826***
Minimal*partisanship	-0.0141	-0.014	0.0228**	-0.0212*
Continent*Partisanship	-0.012	-0.0125	0.0229*	-0.0181
Harmonised Unemployment (lagged one period)	0.0106***	0.0106***	0.0046	0.0058*
GDP growth (lagged one period)	-0.0066**	-0.0067**	-0.0056**	-0.0057**
Union density	0.0003			
Employment Protection Legislation		-0.0138		
Wage coordination			0.0142*	
Spending on Passive Labour Market Programmes as % of GDP				0.0412**
Constant	0.3501***	0.3959***	0.0146	0.3285***
N	241	241	242	241
r2	0.3078	0.31	0.265	0.3291

Note: * p<.1; ** p<.05; *** p<.01; Inclusion of wage coordination (positive significant effect) and Passive Labour Market Programmes (PLMPs - positive significant effect) does affect my results for the regression of training ALMPs but in different ways for wage coordination and PLMPs.

Table A1.15: Jack-knife robustness test stepwise exclusion of countries.

Coefficient	Regression for	Employment incentives and rehabilitation	P-value	Direct Job creation	P-value
Government partisanship	Austria	-0.0326521	0.026	-0.0222165	0.049
Minimal* partisanship		0.0315733	0.045	0.0241091	0.04
Continent* Partisanship		0.0306076	0.067	0.0252689	0.064
Government partisanship	Belgium	-0.0323228	0.004	-0.0216148	0.021
Minimal* partisanship		0.0323053	0.011	0.0235996	0.014
Continent* Partisanship		0.0295333	0.027	0.0233223	0.053
Government partisanship	Denmark	-0.0485346	0	-0.0301766	0.022
Minimal* partisanship		0.0473907	0.001	0.0322633	0.016
Continent* Partisanship		0.0470368	0.002	0.0324229	0.03
Government partisanship	Finland	-0.0340504	0.005	-0.0214654	0.018
Minimal* partisanship		0.0326076	0.015	0.0222096	0.017
Continent* Partisanship		0.0309926	0.029	0.0211149	0.07
Government partisanship	France	-0.0320365	0.004	-0.0217241	0.014

Coefficient	Regression for	Employment incentives and rehabilitation	P-value	Direct Job creation	P-value
		Coefficient		Coefficient	
Minimal* partisanship	Excluding	0.0311738	0.014	0.0240802	0.009
Continent* Partisanship		0.0330889	0.021	0.0298284	0.011
Government partisanship	Germany	-0.0311954	0.004	-0.0211437	0.02
Minimal* partisanship		0.0295606	0.016	0.0223998	0.015
Continent* Partisanship		0.0265821	0.055	0.0205913	0.106
Government partisanship	Greece	-0.0327268	0.004	-0.021789	0.02
Minimal* partisanship		0.0310756	0.013	0.0264996	0.007
Continent* Partisanship		0.0312234	0.02	0.0238293	0.045
Government partisanship	Ireland	-0.0314779	0.005	-0.0191206	0.049
Minimal* partisanship		0.0301023	0.019	0.0198651	0.043
Continent* Partisanship		0.029407	0.031	0.0197457	0.104
Government partisanship	Italy	-0.032275	0.004	-0.021645	0.013
Minimal* partisanship		0.0344996	0.005	0.0236124	0.009
Continent* Partisanship		0.0299645	0.023	0.0239173	0.036

Coefficient	Regression for	Employment incentives and rehabilitation	P-value	Direct Job creation	P-value
		Coefficient		Coefficient	
Government partisanship	Excluding Netherlands	-0.0299832	0.006	-0.0217073	0.021
Minimal* partisanship		0.0282662	0.024	0.0235497	0.014
Continent* Partisanship		0.0298861	0.026	0.0238498	0.05
Government partisanship	Portugal	-0.0319424	0.005	-0.0215002	0.023
Minimal* partisanship		0.0282345	0.037	0.0234972	0.019
Continent* Partisanship		0.0300009	0.026	0.0235614	0.049
Government partisanship	Spain	-0.032359	0.005	-0.0209603	0.023
Minimal* partisanship		0.0303101	0.017	0.0226992	0.017
Continent* Partisanship		0.0322957	0.016	0.0233433	0.047
Government partisanship	Sweden	-0.0078721	0.683	-0.0100378	0.399
Minimal* partisanship		0.0068492	0.733	0.0117858	0.324
Continent* Partisanship		0.0045667	0.827	0.0093161	0.501
Government partisanship	UK	-0.0323096	0.004	-0.0215561	0.022
Minimal* partisanship		0.0312721	0.016	0.0229024	0.018

Coefficient	Regression for	Employment incentives and rehabilitation		Direct Job creation	
	Excluding	Coefficient	P-value	Coefficient	P-value
Continent* Partisanship		0.0302358	0.027	0.0233752	0.05

Table A1.16: Results for employment incentives and rehabilitation are robust to inclusion of fixed effects

	Random effects	Fixed effects
Government partisanship	-0.0324***	-0.0362***
Minimal welfare regime dummy	-0.4310***	-0.6776***
Continental welfare regime dummy	-0.2892***	-0.6393***
Minimal*partisanship	0.0312**	0.0312**
Continent*partisanship	0.0303**	0.0371***
Harmonised Unemployment (lagged one period)	0.0006	-0.0013
GDP growth (lagged one period)	0.001	0.0004
Constant	0.5275***	0.6887***
Observations	242	242
r2	0.3029	0.77

Note: * p<.1; ** p<.05; *** p<.01; Fixed effects do not affect significance of results, though R2 increases to 77%. Net effects of partisanship on Employment incentives and rehabilitation in continental Europe becomes slightly positive. Note also that given the results of the Hausmann tests, F-tests for country inclusions, and the fact that fixed effects are likely highly correlated with welfare regime dummies, the results for the fixed effect regression are unreliable.

Table A1.17: Results for direct job creation are robust to inclusion of fixed effects

	Random	Fixed
Government partisanship	-0.0217**	-0.0225**
Minimal welfare regime dummy	-0.0699	-0.1552*
Continental welfare regime dummy	0.0814	0.0558
Minimal*partisanship	0.0236**	0.0253**
Continent*partisanship	0.0235**	0.0224*
Harmonised Unemployment (lagged one period)	0.0034	-0.0011
GDP growth (lagged one period)	-0.0055**	-0.0066***
Constant	0.0703	0.1301*
Observations	242	242
r2	0.255	0.4427

Note: * p<.1; ** p<.05; *** p<.01; Fixed effects do not affect results, though R2 increases to 44%.

Table A1.18: Results for employment incentives with and without employment rehabilitation

Variable	With employment rehabilitation	Without Employment rehabilitation
Government partisanship	-0.0324***	-0.0236***
Minimal welfare regime dummy	-0.4310***	-0.2086***
Continental welfare regime dummy	-0.2892***	-0.2211***
Minimal*partisanship	0.0312**	0.0213**
Continent*Partisanship	0.0303**	0.0215**
Unemployment (lagged one period)	0.0006	0.004
GDP growth (lagged one period)	0.001	0.0011
Constant	0.5275***	0.2743***
Observations	242	242
r2	0.3029	0.2182

Note: * p<.1; ** p<.05; *** p<.01; the results are not dependent on including employment rehabilitation in supply ALMPs.

Table A1.19: Results for direct job creation and employment incentives with four regimes

Variable	Employment incentives and rehabilitation	Direct job creation
Government partisanship	-0.0325***	-0.0217**
Liberal welfare regime dummy	-0.5026***	0.0375
Southern welfare regime dummy	-0.4042***	-0.1065
Continent welfare regime dummy	-0.2892***	0.0819
Liberal* partisanship	0.0310**	0.0379***
Southern* partisanship	0.0312**	0.0206**
Continent* partisanship	0.0304**	0.0239**
Harmonised Unemployment (lagged one period)	0.0003	0.0036
GDP growth (lagged one period)	0.0011	-0.0059**
Constant	0.5296***	0.0664
Observations	242	242
r2	0.3089	0.2739

Note: * p<.1; ** p<.05; *** p<.01. Ferrera (1996) suggested that the southern European countries may belong to a fourth welfare regime distinct from the liberal, Scandinavian and Bismarckian welfare regimes. My main results concerning the effects of partisanship on employment incentives and rehabilitation as well as direct job creation in Scandinavia and Bismarckian welfare regimes are unchanged by this new clustering. As a dummy, the effect of liberal and southern regimes is similar for employment incentives and insignificant for direct job creation. Partisanship has the same effect on employment incentives in both the southern and liberal regimes. The effect of partisanship on direct job creation is positive in liberal welfare regimes but negative in southern welfare regime.

Table A1.20: Results for employment incentives for sub-samples in different time periods

Variable	Full sample	1990-1998	1999-2007
Government partisanship	-0.0324***	-0.0392**	-0.0058
Minimal welfare regime dummy	-0.4310***	-0.4927***	-0.3785***
Continental welfare regime dummy	-0.2892***	-0.3140***	-0.2825***
Minimal*partisanship	0.0312**	0.0410**	-0.0034
Continent*Partisanship	0.0303**	0.0336	0.0103
Harmonised Unemployment (lagged one period)	0.0006	-0.0023	-0.0058
GDP growth (lagged one period)	0.001	0.0018	-0.0059
Constant	0.5275***	0.6322***	0.5824***
Observations	242	118	124
r2	0.3029	0.3953	0.5039

Note: * p<.1; ** p<.05; *** p<.01. The third way entails a greater reliance on market mechanisms to reach social objectives. Political parties may therefore have converged towards the median voter. One way to test this is to compare the period 1990-1998 with that of 1999-2007. The results indeed suggest that partisanship may have lost some significance after 1998, though more systematic tests of this would be required to investigate this more thoroughly.

Table A1.21: Results for employment incentives and rehabilitation when controlling for deindustrialisation and openness

Variables	(1)	(2)	(3)	(4)
Government partisanship	-0.0324***	-0.0306***	-0.0284***	-0.0235**
Minimal welfare regime dummy	-0.4310***	-0.3702***	-0.3630***	-0.3701***
Continental welfare regime dummy	-0.2892***	-0.2826***	-0.3001***	-0.3117***
Minimal*partisanship	0.0312**	0.0286**	0.0276**	0.0232*
Continent*Partisanship	0.0303**	0.0294**	0.0274**	0.0228*
Harmonised Unemployment (lagged one period)	0.0006	0.0001	-0.0013	-0.0021
GDP growth (lagged one period)	0.001	0.0004	-0.0008	0
Deindustrialisation		0.0075***	0.0079***	0.0081***
Openness			0.0008**	0.0009**
Deficit				-0.0058**
Constant	0.5275***	-0.0151	-0.098	-0.1012
Observations	242	242	242	242
r2	0.3029	0.3312	0.3633	0.3823

Note * p<.1; ** p<.05; *** p<.01; see Table A1.4 for description and source of deindustrialisation, deficit, and openness variables.

Table A1.22: Results for direct job creation when controlling for deindustrialisation and openness

Variables	(1)	(2)	(3)	(4)
Government partisanship	-0.0217**	-0.0213**	-0.0201**	-0.0152*
Minimal welfare regime dummy	-0.0699	-0.0541	-0.0366	-0.0496
Continental welfare regime dummy	0.0814	0.0837	0.0566	0.0409
Minimal*partisanship	0.0236**	0.0230**	0.0241**	0.0196**
Continent*Partisanship	0.0235**	0.0233**	0.0223*	0.0167
Harmonised Unemployment (lagged one period)	0.0034	0.0035	0.0027	0.0035
GDP growth (lagged one period)	-0.0055**	-0.0056**	-0.0068***	-0.0058***
Deindustrialisation		0.0019	0.0012	0.0012
Openness			0.0017***	0.0020***
Deficit				-0.0049***
Constant	0.0703	-0.0696	-0.1677	-0.1764
Observations	242	242	242	242
r2	0.255	0.2568	0.2857	0.3236

Note: * p<.1; ** p<.05; *** p<.01; see Table A1.4 for description and source of deindustrialisation, deficit, and openness variables.

Table A1.23: Results for employment incentives and rehabilitation when controlling for deindustrialisation and openness

Variables	(1)	(2)	(3)	(4)
Government partisanship	0.0069	0.0092	0.0084	0.0123
Minimal welfare regime dummy	-0.3111***	-0.3396***	-0.3378***	-0.3458***
Continental welfare regime dummy	-0.1923***	-0.2052***	-0.1997***	-0.2099***
Minimal*partisanship	-0.0143	-0.0175	-0.017	-0.0209*
Continent*Partisanship	-0.012	-0.0146	-0.0137	-0.0175
Harmonised Unemployment (lagged one period)	0.0106***	0.0098***	0.0098***	0.0093***
GDP growth (lagged one period)	-0.0066**	-0.0064**	-0.0062*	-0.0054*
Deindustrialisation		-0.0025	-0.0022	-0.0023
Openness			-0.0002	-0.0001
Deficit				-0.0042*
Constant	0.3703***	0.5639***	0.5586***	0.5789***
Observations	241	241	241	241
r2	0.3081	0.3359	0.3312	0.3453

Note: * p<.1; ** p<.05; *** p<.01; see Table A1.4 for description and source of deindustrialisation, deficit, and openness variables.

Table A1.24: Results when including the Hall Gingerich index of coordination

Variable	Spending on training
Government partisanship	-0.0031
Hall Gingerich index of coordination	0.1181*
Harmonised Unemployment (lagged one period)	0.0088*
GDP growth (lagged one period)	-0.0071**
Constant	0.1071*
Observations	225
r2	0.2427

Note: * p<.1; ** p<.05; *** p<.01

Source for index of coordination: Hall gingerich (2004: Table page 14).

Table A1.25: Results when controlling for spending on passive labour market policies

Variable	Employment incentives and rehabilitation	Direct job creation	Training
Government partisanship	-0.0253**	-0.0183**	0.0121
Minimal welfare regime dummy	-0.3329***	-0.0357	-0.2537***
Continental welfare regime dummy	-0.2702***	0.0894	-0.1826***
Minimal*partisanship	0.0217*	0.0181*	-0.0212*
Continent*Partisanship	0.0219*	0.0191*	-0.0181
Harmonised Unemployment (lagged one period)	-0.0077*	0.0008	0.0058*
GDP growth (lagged one period)	0.0026	-0.0042*	-0.0057**
Spending on passive labour market spending	0.0740***	0.0319**	0.0412**
Constant	0.4525***	0.0328	0.3285***
Observations	241	241	241
r2	0.357	0.265	0.3291

Note: * p<.1; ** p<.05; *** p<.01. See Table A1.4 for description and source of passive labour market spending.

Appendix A1.2: Empirical evidence supporting assumptions made in paper 1

This appendix presents some empirical evidence for assumptions that I make in the theoretical section of my first paper concerning (a) the effects of labour market policies on inequality and (b) the preferences of left-wing individuals for different labour market policies.

(a) The effects of labour market policies on wage inequality

To calculate the effects of different labour market policies on wage inequality, I run several regressions where the dependent variables capture different forms of inequality and my key independent variables capture spending on employment incentives, direct job creation and training schemes for unemployed, respectively. The two measures of inequality that I choose as my dependent variables are the ratio of the median to bottom income deciles and the ratio of the top to bottom income deciles, respectively.

The regression corrects for panel specific auto-correlation and I report panel corrected standard errors. I control for the unemployment rate, GDP growth, and spending on passive labour market policies. I also test whether the inclusion of country and year effects as well as a trend affects the results. The findings are shown in Table AA1.1 and suggest that employment incentives increase inequality, whereas both direct job creation and training schemes are associated with lower inequality.

(b) The preferences of left-wing constituents for labour market policies

I test in turn preferences for direct job creation, employment incentives, and training schemes by relying on various surveys covering a sample of western European countries.

Preferences for direct job creation

As a proxy for views on job creation, I test the determinants of the following dependent variable (V25 in the 2006 ISSP survey) which asks respondents their views about the following statement: “It is the government responsibility to provide a job for everyone”; where respondents have the following possible responses to choose from: Definitely should be (coded 1); Probably should (coded 2); Probably should not be (coded 3); Definitely should not be (coded 4).

I run an ordered logistic regression on this dependent variable with robust standard errors clustered by country. The sample is composed of a large number of respondents in 11 European member countries for which data is available: Denmark, Finland, France, Germany, Ireland, the Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom. My key independent variable is whether the respondent self identifies as holding left-wing views. Specifically, I create a left dummy that is coded 1 if the respondent identifies as centre left, left or far left, and 0 otherwise. I also include a number of controls for the age, education, gender, and occupation of the respondent.

The results, presented in Table AA1.2, suggest that being a left-wing respondent reduces the likelihood of being in disagreement with the statement that it is the government's responsibility to provide a job for everyone. I interpret this as consistent with my expectation that left-wing voters are more favourable to direct job creation than non-left-wing voters. This result holds when controlling for the gender, age, education, and current employment status of the respondent, as well as for country fixed effects. The age of the respondent has no - stable - significant effect, while being unemployed, in education and female also makes it less likely that the respondent disagrees with job creation. Being in part-time work has no statistically significant effect.

Preferences for employment incentives

To test the partisan determinants of people's preferences for employment incentives, I rely on the 2001 Eurobarometer survey (56.1). The sample is composed of citizens of the EU, aged 15 and over, residing in the following 15 European member states: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

As a proxy for preferences on employment incentives, my dependent variable captures respondents' response to the statement: "The unemployed should be forced to take a job quickly, even if it is not as good as their previous job"; where respondents can choose from: strongly agree (coded 1), slightly agree (coded 2), neither agree nor disagree (coded 3), slightly disagree (coded 4), strongly disagree (coded 5). This

question captures both the preference for incentivising the unemployed to return to work and whether this should be done at the expense of job quality. The key independent variable is a self-placement of respondents along a ten points left-right scale. For simplicity I have recoded this variable into a dummy variable that takes value 1 if the respondent holds left-wing views (interpreted as locating themselves between 1 and 4 on the 10 points scale), and value 0 otherwise.

I run an ordered logistic regression on this dependent variable with robust standard errors clustered by country. The results, presented in Table AA1.3, suggest that left-wing respondents are more likely to disagree with forcing unemployed to take jobs. I use this as proxy of the extent to which left constituents want to incentivise the unemployed to return to employment. This result holds when controlling for the age, gender, occupation, education (age at which finished education), and income of the respondent. I include country fixed effects throughout. Temporary workers and – surprisingly – more educated respondents are also more likely to disagree with the statement. Older respondents are less likely to disagree.

Preferences for training schemes

To test the partisan determinants of people's preferences for training schemes, I rely on the 2001 Eurobarometer survey (56.1). The sample is composed of citizens of the EU aged 15 and over residing in the following 15 European member countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

The dependent variable is respondents' response to the statement "The unemployed should be given the time and opportunity to improve their education and skills"; where they can choose from: strongly agree (coded 1), slightly agree (coded 2), neither agree nor disagree (coded 3), slightly disagree (coded 4), or strongly disagree (coded 5). The key independent variable is a self-placement of respondents along a 10 points left-right scale. I have rescaled this variable to take value 1 where respondents hold left-wing views (interpreted as locating themselves between 1 and 4 on the 10 points scale), and value 0 otherwise.

I run an ordered logistic regression on this dependent variable with robust standard errors clustered by country. The results, presented in Table AA1.4, suggest that left-wing respondents are less likely to disagree with providing the unemployed with training opportunities. I use this as proxy of the extent to which left constituents want left-wing parties in government to spend more on training schemes. This result holds when controlling for the age, gender, occupation, education (age at which finished education), and income of the respondent. I also include country fixed effects throughout.

Table AA1.1: The effect of different labour market policies on inequality

Column	(1)	(2)	(3)	(4)
Dependent variable	Ratio of fifth to bottom tenth income decile (first difference)		Ratio of top to bottom income decile (first difference)	
Spending on employment incentives and rehabilitation (first difference)	0.13299* (0.070)	0.15152** (0.075)	0.16107** (0.076)	0.33865*** (0.115)
Spending on direct job creation schemes (first difference)	-0.11080* (0.067)	-0.13017** (0.057)	-0.13936*** (0.052)	-0.21679** (0.100)
Spending on training schemes (first difference)		-0.12852*** (0.048)	-0.11613** (0.047)	-0.18398*** (0.064)
Unemployment rate (first difference)	0.00197 (0.003)	-0.00907*** (0.003)	-0.00554 (0.005)	-0.01178** (0.006)
GDP growth rate	0.00036 (0.003)	-0.00289 (0.002)	-0.00432* (0.002)	-0.00584 (0.004)
Trend		0.00047 (0.000)	0.00041 (0.000)	0.00092* (0.001)
Spending on passive labour Market policies (first difference)			-0.02304 (0.018)	-0.05021* (0.026)
Constant	0.01735	0.01093	0.01655	0.03041
Observations	170	170	170	170
R-squared	0.24	0.19	0.19	0.19
Number of countries	15	15	15	15
Country FE	No	Yes	Yes	Yes
Year FE	Yes	No	No	No
R-squared	0.2394	0.1893	0.1921	0.1930
Trend	No	Yes	Yes	Yes

Note: Panel corrected standard errors in parentheses (with panel specific autocorrelation); ***

p<0.01, ** p<0.05, * p<0.1. Sources and definition: see appendix to paper 1 and 3.

Table AA1.2: Preferences for job creation

Columns	(1)	(2)	(3)	(4)	(5)
Left power in cabinet dummy	-0.39156*** (0.128)	-0.39007*** (0.128)	-0.39813*** (0.129)	-0.40712*** (0.131)	-0.43330*** (0.157)
Female dummy	-0.34796*** (0.049)	-0.35547*** (0.049)	-0.35040*** (0.048)	-0.33008*** (0.068)	-0.30642*** (0.053)
Age of respondent		-0.00438*** (0.001)	-0.00019 (0.002)	0.00305 (0.002)	0.00089 (0.002)
Years of schooling			0.00584*** (0.002)	0.00942*** (0.002)	0.00547*** (0.001)
Reference: Employed, full-time, main job					
Employed, part-time, main job				0.13140 (0.165)	-0.08491 (0.091)
Employed, less than part-time				-0.05680 (0.152)	-0.15569 (0.164)
Helping family member				0.47424 (0.511)	0.31094 (0.605)
Unemployed				-0.71858*** (0.150)	-0.68376*** (0.166)
Student, school, vocational training				-0.53315*** (0.172)	-0.46444*** (0.107)
Retired				-0.28747*** (0.096)	-0.32701*** (0.080)
Housewife,-man, home duties				-0.35848** (0.157)	-0.36164*** (0.062)
Permanently disabled				-0.69078*** (0.217)	-0.77155*** (0.169)
Other, not in labour force				-0.34824* (0.184)	-0.34901*** (0.103)
Constant cut1	-1.09180***	-1.30803***	-1.05224***	-0.99243***	-1.62883***
Constant cut2	0.41366**	0.19853	0.45387*	0.53071**	-0.03053
Constant cut3	1.76490***	1.54978***	1.81461***	1.90474***	1.38868***
Observations	12,590	12,575	11,889	11,743	11,743
Country	No	No	No	No	Yes (not shown)
Pseudo R-squared	0.01	0.01	0.01	0.01	0.04

Note: Ordinal logistic regression, robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Source: ZA4700 International Social Survey Programme (ISSP 2006): Role of Government IV (Dataset SPSS Portable).

Table AA1.3: Preferences for forcing unemployed to take accept jobs

Column	(1)	(2)	(3)	(4)	(5)
Left power in cabinet dummy	0.36817*** (0.060)	0.36909*** (0.058)	0.36914*** (0.058)	0.35931*** (0.058)	0.34541*** (0.076)
Occupation - reference: Self-employed with employees					
Self-employed without employees	0.29226 (0.181)	0.28806 (0.180)	0.28834 (0.181)	0.28944 (0.179)	0.36247* (0.215)
Manager	0.29495* (0.161)	0.27166* (0.163)	0.27209* (0.164)	0.21721 (0.164)	0.17042 (0.209)
Foreman or supervisor	0.14453 (0.130)	0.10969 (0.137)	0.10933 (0.136)	0.16363 (0.128)	0.14125 (0.186)
Other employee, permanent job	0.09948 (0.140)	0.05448 (0.148)	0.05525 (0.150)	0.12211 (0.146)	0.08239 (0.201)
Other employee, temporary job	0.39255** (0.170)	0.33847* (0.174)	0.33964* (0.174)	0.41656** (0.172)	0.28645 (0.226)
Other employee, fixed time period	0.12379 (0.211)	0.05049 (0.225)	0.05186 (0.228)	0.14856 (0.232)	0.18882 (0.288)
Other	0.33021 (0.228)	0.28047 (0.232)	0.28168 (0.235)	0.36747 (0.240)	0.47636 (0.372)
Age - reference: 15 - 24 years					
25 - 39 years		-0.01155 (0.110)	-0.01125 (0.111)	-0.05109 (0.109)	-0.06757 (0.123)
40 - 54 years		-0.14379 (0.127)	-0.14365 (0.128)	-0.13821 (0.120)	-0.13479 (0.130)
55 years and older		-0.28076* (0.162)	-0.28051* (0.163)	-0.23260 (0.161)	-0.32911** (0.163)
Female dummy			-0.00533 (0.049)	-0.02388 (0.049)	-0.06417 (0.059)
Education				0.06127*** (0.012)	0.07098*** (0.014)
Income quartile – reference: Lowest income quartile					
Next to lowest income quartile					0.06002 (0.102)
Next to highest income quartile					-0.03473 (0.091)
Highest income quartile					-0.07959 (0.109)
Constant cut1	-0.38209**	-0.49551**	-0.49699**	-0.11099	-0.13319
Constant cut2	1.23391***	1.12334***	1.12187***	1.51563***	1.49117***
Constant cut3	2.22076***	2.11132***	2.10986***	2.50634***	2.43687***
Constant cut4	3.51685***	3.40824***	3.40677***	3.80473***	3.78063***
Observations	5,928	5,928	5,928	5,928	4,545
Country (not shown)	Yes	Yes	Yes	Yes	Yes
Pseudo R-squared	0.01	0.01	0.01	0.02	0.02

Note: Ordinal logistic regression, robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Source: Eurobarometer 56.1: Social Exclusion and Modernization of Pension Systems, September-October 2001.

Table AA1.4: Preferences for training schemes for unemployed

	(1)	(2)	(3)	(4)	(5)
Left power in cabinet dummy	-0.22074*** (0.067)	-0.21476*** (0.067)	-0.21473*** (0.067)	-0.21443*** (0.067)	-0.17008** (0.073)
Occupation - reference: Self-employed with employees					
Self-employed without employees	-0.12850 (0.135)	-0.13579 (0.135)	-0.13290 (0.136)	-0.13294 (0.136)	-0.05001 (0.159)
Manager	-0.11551 (0.121)	-0.12518 (0.121)	-0.12137 (0.123)	-0.12024 (0.130)	-0.07336 (0.121)
Foreman or supervisor	-0.04730 (0.194)	-0.05607 (0.194)	-0.05713 (0.194)	-0.05837 (0.189)	0.04855 (0.194)
Other employee, permanent job	-0.00477 (0.105)	-0.02567 (0.108)	-0.01986 (0.110)	-0.02137 (0.103)	0.02129 (0.114)
Other employee, temporary job	0.02558 (0.166)	-0.01158 (0.175)	-0.00428 (0.176)	-0.00607 (0.172)	-0.02509 (0.212)
Other employee, fixed time period	0.01453 (0.178)	-0.03541 (0.187)	-0.02736 (0.192)	-0.02944 (0.180)	-0.06194 (0.216)
Other	0.10202 (0.172)	0.07209 (0.175)	0.08003 (0.180)	0.07845 (0.177)	-0.03107 (0.214)
Age - reference: 15 - 24 years					
25 - 39 years		-0.08133 (0.096)	-0.07971 (0.096)	-0.07890 (0.099)	-0.11759 (0.118)
40 - 54 years		-0.17301 (0.107)	-0.17223 (0.108)	-0.17239 (0.108)	-0.24224** (0.120)
55 years and older		-0.12048 (0.118)	-0.11945 (0.119)	-0.12044 (0.116)	-0.23248* (0.128)
Female dummy			-0.03265 (0.056)	-0.03229 (0.055)	-0.04409 (0.065)
Education				-0.00129 (0.014)	-0.00395 (0.014)
Income quartile – reference: Lowest					
Next to lowest income quartile					0.03465 (0.113)
Next to highest income quartile					0.12351 (0.167)
Highest income quartile					0.10002 (0.170)
Constant cut1	-0.58004***	-0.70550***	-0.71399***	-0.72225***	-0.53484***
Constant cut2	1.68075***	1.55673***	1.54831***	1.54006***	1.74462***
Constant cut3	3.11389***	2.98991***	2.98161***	2.97336***	3.11404***
Constant cut4	4.49204***	4.36780***	4.35952***	4.35126***	4.43469***
Observations	5,955	5,955	5,955	5,955	4,558
Country	Yes	Yes	Yes	Yes	Yes
Pseudo R-squared	0.03	0.03	0.03	0.03	0.03

Note: Ordinal logistic regression, robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Source: Eurobarometer 56.1: Social Exclusion and Modernization of Pension Systems, September-October 2001.

Next, I run the same model as in Table AA1.4 but with interaction terms between three regime types (Scandinavian, Bismarckian, and minimalist) and the dummy variable for holding left views. The marginal effect of the left on the probability of strongly agreeing with “The unemployed should be given the time and opportunity to improve their education and skills” is only significantly positive in Bismarckian and Scandinavian welfare regimes (see table AA1.5 below). Thus, in liberal market economies, left and right wing constituents do not have different preferences for training schemes.

Table AA1.5: Preferences for training schemes for unemployed

Marginal effect of left in	dy/dx	Standard error	Z	P> z	[95% Conf. Interval]	
Scandinavian welfare regime	.082	.0223831	3.71	0.00	.039	.12
Bismarckian welfare regime	.058	.0229118	2.55	0.01	.013	.103
Minimalist welfare regime	.006	.0170179	0.36	0.71	-.027	.039

Note: this table presents the results of interaction effects calculated using a similar model to that presented in table AA1.4 but where the left dummy is interacted with three types of welfare regimes, as defined in paper 1.

Appendix A1.3: Additional empirical tests with alternative partisan measure

The left and employment incentives and rehabilitation

In table AA1.6 I run a regression to assess the effect of the left on spending on employment incentives and rehabilitation in all countries. I try two different measures of left control of government (share of cabinet seats that are held by the left and the share of parliament that is held by the left) in columns 1-2 and columns 3-4 respectively. Column two runs the model on the dependent variable expressed as a first difference whereas columns 1, 3 and 4 run the model on the level of the dependent variable. While columns 1 to 3 include only time fixed effects, running the model on the full sample without controlling for regime dummies also allows me to include country fixed effects in column 4 without risking multicollinearity. Note that excluding Sweden from the regression in column 2 does not affect the results. In all columns, there is a statistically negative association between the left and spending on employment incentives and rehabilitation.

Next, I look at the effect of the left on employment incentives and rehabilitation in continental versus Scandinavian welfare regimes. I therefore run two separate regressions on each welfare regime cluster on the first difference of the dependent variable using a proxy for the left ('leftpower') that I code 1 if the left controls more than 50% of the cabinet and 0 otherwise. The results (shown in table AA1.7) confirm that the effect of the left is negative in both sub-samples and the effect is more negative in the Scandinavian than the continental welfare regime, as was the case in my baseline results discussed in the core of the paper.

I also run a fully interactive model (no constant) to assess more formally how the effect of the left on the first difference of my dependent variable is mediated by each of my three welfare regimes (the results are shown in table AA1.8). I then calculate the marginal effect⁸⁴ of left power in parliament in each welfare regime (see table AA1.9). Last but not least, I test whether the three interaction terms (one for each regime) within the regression are statistically different from one another and reject the null hypothesis that they are jointly equal (Prob > F = 0.1961).⁸⁵

⁸⁴ Using the following command in stata 12:

```
reg d.eireha i.leftpowerparl##i.cont i.leftpowerparl##i.scan i.leftpowerparl##i.min d.ur gdpgr i.year ,
cluster(id) noconstant
margins, dydx(leftpowerparl) at(cont=0 min=1 scan=0)
margins, dydx(leftpowerparl) at(cont=0 min=0 scan=1)
margins, dydx(leftpowerparl) at(cont=1 min=0 scan=0)
```

⁸⁵ Using the following command in stata 12:

```
testparm scan#leftpowerparl cont#leftpowerparl min#leftpowerparl, equal
```

Table AA1.6: The effect of different measures of the left on spending on employment incentives and rehabilitation

Columns	(1)	(2)	(3)	(4)
Dependent variable	Spending on employment incentives and rehabilitation (levels)	Spending on employment incentives and rehabilitation (first difference)	Spending on employment incentives and rehabilitation (levels)	Spending on employment incentives and rehabilitation (levels)
Left cabinet (share of cabinet held by left)	-0.00054* (0.000)	-0.00020** (0.000)		
Left parliament (share of parliament held by left)			-0.00316*** (0.001)	-0.00323*** (0.001)
Rate of Unemployment (as % of Civilian Labour Force)	-0.00188 (0.004)	0.00066 (0.001)	-0.00113 (0.004)	-0.00093 (0.004)
GDP growth rate	-0.00355 (0.005)	-0.00336* (0.002)	-0.00326 (0.005)	-0.00305 (0.005)
Constant	0.26343*** (0.098)	0.02005 (0.013)	0.37175*** (0.115)	0.37330*** (0.071)
Observations	324	309	324	324
Number of id	15	15	15	15
Country fixed effects	No	No	No	Yes
Year fixed effects	Yes	Yes	Yes	Yes
R-squared within	0.18	0.14	0.19	0.19
R-squared between	0.00	0.25	0.01	0.01
R-squared overall	0.02	0.14	0.01	0.00

Note: Robust clustered standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table AA1.7: The effect of the left on employment incentives in Continental and Scandinavian welfare regime

Columns	(1)	(2)
Dependent variable	Spending on employment incentives and rehabilitation (first difference)	Spending on employment incentives and rehabilitation (first difference)
Sample	Continental welfare regime cluster	Scandinavian welfare regime cluster
Left power in cabinet dummy	-0.01361*** (0.002)	-0.01864** (0.008)
Unemployment rate (lagged once)	0.00083 (0.001)	-0.00140 (0.004)
Union density	0.00038 (0.000)	-0.00006 (0.000)
GDP growth rate	-0.00919 (0.006)	-0.00237 (0.005)
Constant	0.00936 (0.031)	0.02274 (0.026)
Observations	109	87
Number of id	5	4
Country FE	No	No
Year FE	Yes	Yes
R-squared within	0.17	0.48
R-squared between	0.39	0.97
R-squared overall	0.19	0.48

Note: Robust clustered standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Left power dummy takes value 1 if left controls more than 50% of the cabinet and 0 otherwise. Continental Bismarckian welfare regime refers to Austria, Belgium, France, Germany, and Netherlands. Scandinavian welfare regime refers to Denmark, Finland, Norway, and Sweden.

Table AA1.8: The effect of the left on employment incentives – interactive model

Dependent variable	Spending on employment incentives and rehabilitation (first difference)
Continental welfare regime	.0166 (.0131)
Scandinavian welfare regime dummy	.0196 (.0137)
Minimalist welfare regime dummy	.0214 (.0149)
Left power in parliament dummy * continental welfare Regime	-.0098 (.0075)
Left power in parliament dummy * scandinavian welfare regime	-.0228*** (.0071)
Left power in parliament dummy * minimalist welfare regime	-.0081** (.0038)
GDP growth	-.0014 .0020
Unemployment rate (first difference)	.0081 .0056
Observations	291
Number of id	15
Country fixed effects	No
Year fixed effects	Yes
R-squared	0.1547

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 Continental Bismarckian welfare regime refers to Austria, Belgium, France, Germany, Netherlands. Minimalist welfare regime refers to UK, Ireland, Spain, Italy, Portugal and Greece. Scandinavian welfare regime refers to Denmark, Finland, Norway, and Sweden.

Table AA1.9: Marginal effects of left in different welfare regimes

Marginal effect of left in	dy/dx	Standard error	Z	P> z	[95% Conf. Interval]	
Scandinavian welfare regime	-.0310	.0070	-4.40	0.00	.0448	-.0171
Continental welfare regime	-.0180	.006	-2.72	0.007	-.0310	-.0050
Minimalist welfare regime	-.0081	.0038	-2.15	0.032	-.0156	-.0007

The left and direct job creation

To further check that the partisan effect on direct job creation does indeed depend on the welfare regime in which the left is located, I run two separate regressions in continental welfare regime and Scandinavian welfare regime, respectively. The results, shown in table AA1.10, confirm that the left is indeed associated with an increase in spending in the Continental welfare regime but with a decrease in spending in Scandinavian welfare regime. Note that excluding Sweden from the regression in column 2 does not affect the results. Last but not least, consistent with my explanation, the left is indeed associated with more public sector employees as % total employees in Scandinavian but not continental welfare regime (see table AA1.11).

Table AA1.10: Effect of the left on direct job creation in different welfare regimes

Column	(1)	(2)
Welfare regime cluster	Continental	Scandinavian
Dependent variable	Spending on direct job creation (first difference)	Spending on direct job creation (first difference)
Left power in parliament dummy	0.02148* (0.011)	-0.03089** (0.013)
Unemployment rate	-0.00260** (0.001)	-0.00412* (0.002)
GDP growth	0.00723 (0.007)	-0.01520*** (0.004)
Constant	0.03510 (0.033)	-0.00058 (0.047)
Observations	110	87
Number of id	5	4
Country fixed effects	No	No
Year fixed effects	Yes	Yes
R-squared within	0.35	0.52
R-squared between	0.58	0.69
R-squared overall	0.36	0.49

Note: Robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. Continental Bismarckian welfare regime refers to Austria, Belgium, France, Germany, and Netherlands. Minimalist welfare regime refers to UK, Ireland, Spain, Italy, Portugal and Greece. Scandinavian welfare regime refers to Denmark, Finland, Norway, and Sweden.

Table AA1.11: Effect of the left on direct job creation in different welfare regimes

Column	(1)	(2)
Welfare regime	Scandinavian welfare regime cluster	Continental welfare regime cluster
Dependent variable	Public sector employees as % total employees (first difference)	
Left power in parliament dummy	0.21003*** (0.068)	-0.01965 (0.087)
Unemployment rate (lagged)	0.02962* (0.018)	-0.01724 (0.017)
Union density	-0.03825*** (0.007)	0.00093 (0.002)
GDP growth	-0.13187*** (0.042)	-0.14352* (0.080)
Constant	3.77356*** (0.091)	0.78277*** (0.204)
Observations	81	134
Number of id	3	5
Country fixed effects	No	No
Year fixed effects	Yes	Yes
R-squared within	0.74	0.65
R-squared between	0.38	0.18
R-squared overall	0.72	0.64

Note: robust clustered standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1. Continental Bismarckian welfare regime refers to Austria, Belgium, France, Germany, and Netherlands. Minimalist welfare regime refers to UK, Ireland, Spain, Italy, Portugal and Greece. Scandinavian welfare regime refers to Denmark, Finland, Norway, and Sweden.

Source: Data on share of public sector employees taken from the OECD statistics website.

The left and training schemes

Table AA1.12 confirms that the left, using a different measure of left control of the government that the one I relied on in the core of the paper, is not associated with more or less spending on training, regardless of the welfare regime under consideration.

Table AA1.12: Effect of the left on training schemes in different welfare regimes

Column	(1)	(2)	(3)	(4)	(5)
Welfare regime cluster	All three	All three	Continental	Minimal	Scandinavian
Dependent variable	Spending on training schemes (first difference) schemes (levels)				
Left power in cabinet dummy	0.01876 (0.025)	0.00264 (0.006)	-0.00792 (0.010)	0.00309 (0.007)	0.02589 (0.022)
Unemployment rate	0.00964 (0.008)	-0.00059 (0.001)	-0.00093** (0.000)	-0.00080 (0.001)	0.00307 (0.002)
GDP growth	-0.00829 (0.008)	-0.00112 (0.002)	0.01028 (0.010)	-0.00041 (0.001)	-0.00759 (0.010)
Constant	0.16050 (0.099)	0.01017 (0.008)	0.01174 (0.016)	-0.00193 (0.006)	-0.01366 (0.018)
Observations	338	322	110	125	87
Number of id	15	15	5	6	4
Country fixed effects	No	No	No	No	No
Year fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared within	0.19	0.08	0.29	0.14	0.28
R-squared between	0.04	0.02	0.07	0.04	0.83
R-squared overall	0.02	0.08	0.28	0.14	0.26

Note: robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table AA1.13: Effect of the left on employment incentives and rehabilitation – Jackknife robustness checks

Column	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable	Spending on employment incentives and rehabilitation (first difference)						
Left power in cabinet dummy	-0.01696*** (0.006)	-0.01735*** (0.006)	-0.01731*** (0.006)	-0.01696*** (0.006)	-0.01244*** (0.005)	-0.01816*** (0.007)	-0.01536*** (0.006)
Unemployment rate	0.00071 (0.001)	0.00066 (0.001)	0.00050 (0.001)	0.00071 (0.001)	0.00050 (0.001)	0.00091 (0.001)	0.00077 (0.001)
Union density	0.00008 (0.000)	0.00007 (0.000)	0.00004 (0.000)	0.00008 (0.000)	0.00003 (0.000)	0.00012 (0.000)	0.00011 (0.000)
GDP growth	-0.00403* (0.002)	-0.00384* (0.002)	-0.00330 (0.002)	-0.00403* (0.002)	-0.00305 (0.002)	-0.00407 (0.003)	-0.00362 (0.002)
Constant	0.01462 (0.016)	0.01348 (0.018)	0.01827 (0.016)	0.01462 (0.016)	0.01441 (0.017)	0.01412 (0.021)	0.00849 (0.018)
Observations	291	270	269	291	270	269	269
Number of id	14	14	14	14	14	14	14
Country FE	No	No	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared within	0.15	0.16	0.19	0.15	0.13	0.14	0.16
R-squared between	0.29	0.29	0.26	0.29	0.28	0.33	0.38
R-squared overall	0.15	0.16	0.19	0.15	0.13	0.14	0.16

Note: Robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table AA1.13 (continued): Effect of the left on employment incentives and rehabilitation – Jackknife robustness checks

Column	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Dependent variable	Spending on employment incentives and rehabilitation (first difference)							
Left power in cabinet dummy	-0.01679*** (0.006)	-0.01797*** (0.006)	-0.01542*** (0.006)	-0.01744*** (0.006)	-0.01696*** (0.006)	-0.01839*** (0.006)	-0.01696*** (0.006)	-0.01896*** (0.007)
Unemployment rate	0.00076 (0.001)	0.00075 (0.001)	0.00097 (0.001)	0.00072 (0.001)	0.00071 (0.001)	0.00049 (0.001)	0.00071 (0.001)	0.00089 (0.001)
Union density	0.00006 (0.000)	0.00008 (0.000)	0.00008 (0.000)	0.00007 (0.000)	0.00008 (0.000)	0.00001 (0.000)	0.00008 (0.000)	0.00007 (0.000)
GDP growth	-0.00409* (0.002)	-0.00433* (0.003)	-0.00705** (0.003)	-0.00423 (0.003)	-0.00403* (0.002)	-0.00386* (0.002)	-0.00403* (0.002)	-0.00440 (0.003)
Constant	0.01515 (0.018)	0.01539 (0.017)	0.02263 (0.017)	0.01544 (0.017)	0.01462 (0.016)	0.02359 (0.015)	0.01462 (0.016)	0.01341 (0.017)
Observations	269	285	269	274	291	269	291	269
Number of id	14	14	14	14	14	14	14	14
Country FE	No	No	No	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared within	0.16	0.15	0.17	0.15	0.15	0.16	0.15	0.16
R-squared between	0.31	0.21	0.38	0.27	0.29	0.30	0.29	0.36
R-squared overall	0.16	0.15	0.18	0.15	0.15	0.16	0.15	0.16

Note: Robust clustered standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

II: Appendix paper 2

List of tables in appendix A2.1 - interviews and composition of EPL for temporary workers

Table A2.1: List of interviews carried out in summer 2011

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Table A2.4: Determinants of temporary work regulations - Alternative regression method

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Table A2.5: The determinants of EPL for temporary workers – cross-sectional regression

Table A2.6: Regression on changes in EPL for temporary workers

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Table A2.10: Marginal coefficients from Table A2.9 column (5)

Table A2.11: The determinants of temporary work regulations - regression with 3 years moving average controls

Table A2.12: The determinants of changes in temporary work regulations - inclusion of various measures of union strength

Table A2.13: The determinants of changes in temporary work regulations – Alternative measures of coordination

Table A2.14: The determinants of changes in temporary work regulations – Alternative measures of openness

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Table A2.16: Jack-knife robustness checks – country exclusion

Table A2.17: Stepwise inclusion of variables

Table A2.18: Educational profile of temporary workers in comparative perspective

Table A2.19: Partisan preferences among workers with limited and unlimited contracts

Table A2.20: Partisan preferences among workers in different occupational groups

List of tables in appendix A2.5 - testing effect of share of craft workers

Table AA2.1: The effect of the share of craft workers on reregulation of temporary work sector

Appendix A2.1: List of interviews and composition of EPL for temporary workers

Table A2.1: List of interviews carried out in summer 2011

Organisation	Interviewee
Union	Confédération générale du travail (CGT): confederal representative
Union	Confédération française démocratique du travail (CFDT): confederal representative
Union	Confédération française démocratique du travail (CFDT): head of service federation
Union	Confédération générale du travail (CGT): representative from unemployed group
Union	Confédération générale du travail (CGT): representative interim federation
Union	Confédération française de l'encadrement - Confédération générale des cadres (CGC-CFE): confederal representative
Employer organisation	Mouvement des Entreprises de France (MEDEF) : representative responsible for employment and social affairs
Employer organisation	Confédération Générale des Petites et Moyennes Entreprises (CGPME): confederal representative
Employer organisation	Professionnels de l'intérim, services et métiers de l'emploi (PRISME): Representative
Government	Civil servant from Employment ministry
Government	Civil servant from Work ministry

Note: During a fieldwork in France in the summer 2011, semi-structured interviews were carried out with various union and employer representatives as well as civil servants. The question concerned changes in labour market policies that target labour market outsiders.

Table A2.2: EPL for temporary workers – breakdown of aggregate index

Countries	Valid cases for use of fixed-term contracts	Maximum number of successive fixed-term contracts	Maximum cumulated duration of successive fixed-term contracts	Types of work from which temporary work agency employment is legal	Restrictions on number of renewals of temporary work agency contracts	Maximum cumulated duration of successive temporary work agency contracts
Austria	1	5	0	1.5	2	0
Belgium	1	2	2	3	4	5
Denmark	1	5	2	0	2	0
Finland	4	5	0	0	2	0
France	4	4	4	3	4	3
Germany	0	2	1	1.5	4	0
Greece	6	2	3	0	4	4
Ireland	1	0	1	0	2	0
Italy	2	4	0	1.5	4	0
Netherlands	0	3	0	0.75	4	1
Norway	4	5	1	3	4	1
Portugal	2	2	1	3	4	5
Spain	3	3	3	3	4	6
Sweden	1	0	5	0	2	4
UK	0	0	1	0	2	0

Notes: Values in 2007, higher scores mean more stringent regulations.

Source: OECD index construction and values for France can be accessed at:

<http://www.oecd.org/employment/employmentpoliciesanddata/42740190.pdf>

<http://www.oecd.org/employment/employmentpoliciesanddata/42746050.pdf>

Appendix A2.2: Determinants of replaceability

Table A2.3: Skill specificity of different occupations

Description of occupational group	Number of unit groups within ISCO classification	Share in ISCO classification	Empirical share in labour force			Absolute skill specificity	ISCO skill-level	Relative skill specificity	(Relative skill specificity) / StDv
			female	male	total				
1 "Legislators, senior officials and managers"	33	0.085	5.34	10.53	8.31	10.24	4	2.56	0.94
2 "Professionals"	55	0.142	13.62	12.19	12.73	11.13	4	2.78	1.03
3 "Technicians and associate professionals"	73	0.188	16.23	12.66	14.28	13.17	3	4.39	1.62
4 "Clerks"	23	0.059	22.24	6.92	13.36	4.44	2	2.22	0.82
5 "Service workers and shop and market sales workers"	23	0.059	21.37	7.58	13.44	4.41	2	2.20	0.81
6 "Skilled agricultural and fishery workers"	16	0.041	2.96	5.41	4.41	9.35	2	4.67	1.72
7 "Craft and related trades workers"	70	0.180	4.23	23.79	15.50	11.64	2	5.82	2.14
8 "Plant and machine operators and assemblers"	70	0.180	3.95	12.45	8.82	20.45	2	10.23	3.77
9 "Elementary occupations"	25	0.064	10.01	8.37	9.07	7.11	1	7.11	2.62
SUM	388	1	99.94	99.90	99.92		StDV	2.71	1

Source: Iversen, Torben, and David Soskice (2001) and Cusack, Thomas, Torben Iversen, and Philipp Rehm (2006).

Notes and sources of Table A2.3

Empirical share in labour force	This is referred to as "Share of labour force" in Iversen & Soskice (APSR 2001). Here calculated from labour force surveys (not the ISSP 1996 survey, as in Iversen & Soskice APSR 2001), as a grand mean over all country-years in the sample. This means, roughly, that the shares are calculated with data from the following countries: Australia, Austria, Canada, Denmark, Finland, Germany (East and West separately), Ireland, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA from about 1985 to about 2000. Numbers do not sum to 100 because of rounding errors.
Absolute skill specificity (total)	= (Share in ISCO classification) / (Empirical share in labour force, total)
ISCO skill-level	ILO does not assign an "ISCO skill-level" to ISCO88-1d group "1" (Legislators, senior officials, managers). We assign the highest "ISCO skill-level" (4) to this group. See http://www.ilo.org/public/english/bureau/stat/isco/isco88/publ3.htm . This measure is referred to in Iversen & Soskice (APSR 2001) as "ISCO level of skills"
Relative skill specificity	= (Absolute skill specificity / ISCO-skill level)

Appendix A2.3: Determinants of temporary work regulation

Table A2.4: Determinants of temporary work regulations - Alternative regression method

VARIABLES	(1) Flexibilisation temporary agency work	(2) Flexibilisation fixed-term contracts	(3) Flexibilisation new contracts	(4) Flexibilisation of all types of temporary work (temporary agency work, fixed-term contracts and new contracts)	(5)
Strictness of employment protection <i>(overall, lagged once)</i>	0.25490*** (0.083)	0.10190 (0.100)	0.00964 (0.063)	0.36644** (0.138)	0.40991** (0.154)
Coordination Dummy <i>(0 low coordination, 1 high coordination)</i>	0.13712* (0.075)	0.13688*** (0.044)	0.10860* (0.055)	0.38260** (0.149)	0.35679** (0.165)
Left Power <i>(1 if left controls > 50% of cabinet seats)</i>	0.03728 (0.065)	-0.05959 (0.068)	0.00111 (0.040)	-0.02121 (0.104)	-0.30287 (0.215)
Share of temporary employment <i>(% dependent employment, lagged once)</i>	0.00014 (0.006)	-0.01539 (0.014)	0.00090 (0.005)	-0.01435 (0.019)	-0.01305 (0.020)
Total Trade <i>(Trade-to-GDP-ratio, lagged once)</i>	0.00040 (0.002)	-0.00007 (0.004)	-0.00231 (0.002)	-0.00198 (0.004)	-0.00384 (0.004)
Rate of Unemployment <i>(% of Civilian Labour Force, lagged once)</i>	0.02849*** (0.009)	0.02078 (0.016)	0.00433 (0.006)	0.05360*** (0.016)	0.04849*** (0.014)
Coordination* Left Power					0.36599 (0.217)
Constant	-1.13866***	-0.31748	0.12296	-1.33318	-1.28529
Observations	269	269	269	269	269
Number of id	14	14	14	14	14
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
R-squared within	0.17	0.08	0.12	0.17	0.18
R-squared between	0.00	0.35	0.01	0.05	0.04
R-squared overall	0.02	0.11	0.06	0.07	0.06

Note: Regression method is XTREG with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table: Marginal effects using results from column 2

Coordination	Party	Margin	P-value
Low	Right	-0.2072	0.108
Low	Left	-0.5101	0.020
High	Right	0.1498	0.006
High	Left	0.2126	0.001

Note: Using results from column 2 in Table A2.4, calculated using the margins command in Stata 11.

Table A2.5: The determinants of EPL for temporary workers – cross-sectional regression

Column	(1)	(2)
Perceived ease of replacement (dummy)	0.14278*** (0.047)	-0.28355** (0.145)
Temporary sector (share of total employees)	0.06023** (0.026)	0.02452 (0.023)
Wage coordination index (From 0 to 5)	0.25692 (0.170)	0.48852*** (0.148)
Left power (mean last 30 years)	0.03129** (0.015)	-0.11942** (0.051)
Repaceability*Left power		0.01209*** (0.004)
Constant	-3.04070**	2.12771
Observations	12	12
Number of id	12	12
Country FE	No	No
Year FE	No	No

Note: *** p<0.01, ** p<0.05, * p<0.1; Generalized least squares to correct for heteroskedasticity (hence no R²).

Table A2.6: Regression on changes in EPL for temporary workers

Column	(1)	(2)	(3)	(4a)	(4b)
Dependent variable	First difference in EPL of temporary workers			Flexibilising (-1)	Tightening (1)
Replaceability	0.00418*** (0.001)				
Coordination dummy		-0.10095*** (0.034)	-0.06663* (0.038)	0.85148 (1.849)	14.22254*** (0.778)
Left power dummy			0.05536* (0.032)	-12.14018*** (2.629)	17.93043*** (0.760)
Coordination*left			-0.08937*** (0.029)	13.40176*** (2.612)	-18.26805*** (1.940)
Temporary work (lagged)	0.00313 (0.002)	0.00618** (0.003)	0.00633** (0.003)	0.08056 (0.056)	-0.17999* (0.101)
Unemployment rate (lagged)	-0.00809* (0.005)	-0.00826 (0.005)	-0.00753 (0.005)	0.27454** (0.121)	-0.30046 (0.211)
Openness (a) (lagged)	0.00033 (0.000)	0.00100* (0.001)	0.00095 (0.001)	-0.02299 (0.029)	-0.00581 (0.049)
Constant	-0.01142	0.00917	-0.01126	-20.20755***	-31.90931***
Observations	289	289	289	289	289
Number of countries	16	16	16	16	16
Country FE	No	No	No	Yes	Yes
Year FE	Yes	Yes	Yes	No	No
R-squared within	0.11	0.11	0.11	n.a.	n.a.
R-squared between	0.27	0.28	0.29	n.a.	n.a.
R-squared overall	0.12	0.12	0.13	n.a.	n.a.

Note: Columns (1) to (3) ordinal logistic regression, columns (4a) and (4b) multinomial logistic regression, both with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (a) Openness is not lagged for the multinomial logistic regressions (i.e.: column 4a and 4b) as this results in the variance matrix being non-symmetric or highly singular. Similarly, note that for Multinomial logistic regression only country dummies are included because including time dummies results in the variance matrix becoming non-symmetric or highly singular.

Table A2.7: Marginal effect of left control of government in different coordination regime

Probability(EPL temporary workers is increased)	dy/dx	P-value
Low coordination	0.2698182	0.000
High coordination	-0.0036453	0.825
Probability(EPL temporary workers is reduced)		
Low coordination	-0.1642466	0.523
High coordination	0.0633261	0.000

Note: marginal effects are computed using the results of column 3 in Table A2.6.

Table A2.8: The determinants of temporary work regulations - no time controls

Columns	(1)	(2)	(3)	(4)	(5)
Dependent variable	Temporary agency work	Fixed term contracts	New contracts	Sum change in temporary work fixed term contracts and new contracts	
Strictness of employment protection <i>(overall, lagged once)</i>	2.29651*** (0.699)	0.32715 (0.603)	-0.76584 (0.714)	0.58091 (0.509)	0.66680 (0.518)
Coordination Dummy <i>(0 low coordination, 1 high coordination)</i>	1.69768* (1.029)	1.11207*** (0.293)	15.61460*** (0.937)	1.49215*** (0.162)	1.30448*** (0.258)
Left Power <i>(1 if left controls > 50% of cabinet seats)</i>	0.48898 (0.791)	-0.21489 (0.336)	-0.21235 (0.832)	-0.24308 (0.406)	-1.53278*** (0.323)
Share of temporary employment <i>(% dependent employment, lagged once)</i>	0.02165 (0.092)	-0.11126 (0.080)	0.05290 (0.084)	-0.03907 (0.051)	-0.02636 (0.049)
Total Trade <i>(Trade-to-GDP-ratio, lagged once)</i>	0.03251 (0.024)	0.01820 (0.024)	-0.06075 (0.062)	0.01699 (0.015)	0.01359 (0.014)
Rate of Unemployment <i>(% of Civilian Labour Force, lagged once)</i>	0.31751*** (0.097)	0.15385 (0.105)	0.22239*** (0.066)	0.21152*** (0.073)	0.18324*** (0.063)
Coordination * Left power					1.68563** (0.724)
Constant cut1	4.25093	1.08733	-18.71828***	-0.95264	-1.36015
Constant cut2	12.66382***	6.80753**	32.75232***	1.67743	1.29217
Constant cut3				6.82490***	6.55576***
Constant cut4				8.15820***	7.89006***
Constant cut5				9.85787***	9.59110***
Observations	269	269	269	269	269
Country FE	Yes	Yes	Yes	Yes	Yes

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A2.9: The determinants of temporary work regulations - no time controls and no country fixed effects

Columns	(1)	(2)	(3)	(4)	(5)
Dependent variable	Temporary work	Fixed term contracts	New contracts	Sum change in temporary work fixed term contracts and new contracts	
Coordination Dummy (0 low coordination, 1 high coordination)	1.30815** (0.514)	1.08636*** (0.229)	-0.13728 (1.285)	1.07163*** (0.280)	0.60369 (0.447)
Left power (1 if left controls > 50% of cabinet seats)	0.40031 (0.472)	-0.01171 (0.303)	-0.08749 (0.838)	-0.08836 (0.248)	-1.15420*** (0.343)
Employment Protection Legislation (overall, lagged once)	0.25395* (0.132)	0.44657*** (0.112)	0.18456 (0.492)	0.33744*** (0.130)	0.28557** (0.126)
Share of temporary employment (% dependent employment, lagged once)	-0.15200*** (0.033)	-0.14364*** (0.022)	-0.07342 (0.050)	-0.14359*** (0.019)	-0.14431*** (0.019)
Rate of Unemployment (as % of Civilian Labour Force, lagged once)	0.09369** (0.042)	0.07723* (0.041)	0.16584** (0.068)	0.09779*** (0.026)	0.08619*** (0.024)
Total Trade (Trade-to-GDP-ratio, lagged once)	-0.01554** (0.006)	-0.00606* (0.003)	-0.00926 (0.016)	-0.01072** (0.004)	-0.01127** (0.005)
Coordination * Left Power					1.35734** (0.612)
Constant cut1	-4.59704***	-2.23348***	-4.98577***	-5.30984***	-6.02329***
Constant cut2	2.51305***	3.25286***	3.58637*	-2.69505***	-3.39296***
Constant cut3				2.19347***	1.56368***
Constant cut4				3.48728***	2.85978***
Constant cut5				5.16583***	4.53718***
Observations	269	269	269	269	269
Fixed effects	No	No	No	No	No
Cubic trend	No	No	No	No	No
Log pseudo-likelihood	-88.37	-135.25	-54.29	-190.61	-189.15
Pseudo R-squared	0.09	0.09	0.06	0.07	0.08

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A2.10: Marginal coefficients from Table A2.9 column (5)

Party	Coordination	Deregulating	Re-regulating
Right	Low	0.056***	0.110***
Left	Low	0.0201***	0.244***
Right	High	0.0907***	0.068***
Left	High	0.105***	0.057***

Table A2.11: The determinants of temporary work regulations - regression with 3 years moving average controls

Columns Dependent Variable	(1) Sum change in temporary work fixed term contracts and new contracts	(2) Sum change in temporary work fixed term contracts and new contracts
Coordination Dummy (0 low coordination, 1 high coordination)	1.19867*** (0.385)	0.95345*** (0.296)
Left power (1 if left controls > 50% of cabinet seats)	-0.47270 (0.445)	-2.37274*** (0.803)
Employment Protection Legislation (overall, lagged once)	1.34248** (0.609)	1.39307** (0.625)
Share of temporary employment (% dependent employment, lagged once)	-0.06321 (0.097)	-0.07277 (0.089)
Unemployment rate (3 years moving average)	0.15296 (0.110)	0.16766* (0.091)
Openness (3 years moving average)	-0.02308 (0.030)	-0.01963 (0.028)
Coordination * Left power		2.35549*** (0.895)
Constant cut1	-1.38093	-1.10661
Constant cut2	1.23606	1.55107
Constant cut3	6.39179	6.87056*
Constant cut4	7.74434**	8.22797**
Constant cut5	9.47598**	9.95992***
Observations	269	269
Fixed effects i	Yes	Yes
Cubic trend ii	Yes	Yes
Log pseudo-likelihood	-184.26	-181.26
Pseudo R-squared	0.10	0.12

Notes: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed Effects not shown; (ii) Cubic trend refers to the inclusion of a trend a squared trend and a cubic trend as recommended by Carter and Signorino (2010).

Table A2.12: The determinants of changes in temporary work regulations - inclusion of various measures of union strength

Columns	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Sum change in temporary work fixed term contracts and new contracts					
Wage coordination index (from 1 to 5)	0.46644*** (0.148)	0.49049*** (0.190)	0.51544*** (0.178)	0.60590** (0.259)	0.81173** (0.331)	0.73265** (0.298)
Left power (1 if left controls > 50% of cabinet seats)	-0.10924 (0.284)	-0.19321 (0.326)	-0.09421 (0.304)	-0.82163* (0.488)	-0.77335* (0.456)	-0.81272* (0.480)
Employment Protection Legislation (overall, lagged once)	0.38342* (0.209)	0.44716 (0.274)	0.36089* (0.192)	1.28856** (0.649)	1.42619* (0.757)	1.29544** (0.566)
Share of temporary employment (% dependent employment, lagged once)	-0.13699*** (0.024)	-0.13331*** (0.024)	-0.13786*** (0.027)	-0.06854 (0.153)	-0.05427 (0.145)	-0.07188 (0.139)
Rate of Unemployment (% of Civilian Labour Force, lagged once)	0.07869*** (0.029)	0.08901** (0.042)	0.07081** (0.033)	0.28662*** (0.085)	0.22181*** (0.073)	0.26076*** (0.092)
Total Trade (Trade-to-GDP-ratio, lagged once)	-0.01568*** (0.005)	-0.00815 (0.006)	-0.01496*** (0.005)	-0.03158 (0.022)	-0.01947 (0.027)	-0.02123 (0.022)
Union density	0.00483 (0.009)			-0.02516 (0.059)		
Bargaining coverage		-0.01896** (0.008)			-0.07035*** (0.024)	
Union centralisation			-0.62472 (0.998)			-12.65254*** (2.500)
Constant cut1	-4.68871***	-5.36152***	-5.05646***	-1.07317	-4.77909	-10.62693***
Constant cut2	-2.27515***	-2.94910***	-2.64503***	1.41886	-2.29535	-8.12506**
Constant cut3	2.73308***	1.86777***	2.36018***	7.04712**	2.98247	-2.37239
Constant cut4	3.94346***	3.08489***	3.57336***	8.34518***	4.27514	-1.05205
Constant cut5	5.64342***	4.79012***	5.27609***	10.13115***	6.05263	0.74676
Observations	236	221	236	236	221	236
Log pseudo-likelihood	-166.55	-164.23	-166.63	-154.46	-154.31	-152.11
Pseudo R-squared	0.08	0.08	0.08	0.15	0.13	0.16
Fixed effects (i)	Yes	Yes	Yes	No	No	No
Cubic trend (ii)	Yes	Yes	Yes	No	No	No

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed Effects not shown; (ii) Cubic trend refers to the inclusion of a trend a squared trend and a cubic trend as recommended by Carter and Signorino (2010).

Table A2.13: The determinants of changes in temporary work regulations – Alternative measures of coordination

Columns	(1)	(2)	(3)	(4)
Dependent variable	Flexibility of fixed term contracts, agency work and new contracts			
Left power <i>(1 if left controls > 50% of cabinet seats)</i>	-0.09891 (0.281)	-0.25652 (0.382)	-0.26295 (0.427)	-0.29768 (0.455)
Employment Protection Legislation <i>(overall, lagged once)</i>	-0.00553 (0.187)	0.55988 (0.532)	0.36044 (0.585)	0.34763 (0.589)
Share of temporary employment <i>(% dependent employment, lagged once)</i>	-0.12049*** (0.020)	-0.04506 (0.054)	-0.04090 (0.051)	-0.04083 (0.052)
Rate of Unemployment <i>(as % of Civilian Labour Force, lagged once)</i>	0.13144*** (0.029)	0.24799*** (0.056)	0.21559*** (0.077)	0.22092*** (0.083)
Total Trade <i>(Trade-to-GDP-ratio, lagged once)</i>	-0.00527* (0.003)	0.01245 (0.015)	0.01550 (0.014)	0.01601 (0.014)
Hall Gingerich index of coordination <i>(from 0 to 1)</i>	2.30031*** (0.611)			
Wage coordination index <i>(from 1 to 5)</i>		0.82239*** (0.193)		
Rights of works councils <i>(From 0 to 3)</i>			1.54604** (0.619)	
Status of works council <i>(From 0 to 2)</i>				1.28353** (0.547)
Constant cut1	-4.46766***	0.46147	1.64389	-0.39721
Constant cut2	-1.89529***	3.08883	4.26380	2.22673
Constant cut3	3.02345***	8.29166***	9.36034***	7.32958***
Constant cut4	4.33750***	9.63541***	10.68318***	8.65242***
Constant cut5	5.90796***	11.35033***	12.36701***	10.33605***
Observations	247	269	269	269
Fixed effects (i)	No (ii)	Yes	Yes	Yes
Log pseudo-likelihood	-175.07	-182.80	-185.81	-185.63
Pseudo R-squared	0.08	0.11	0.09	0.10

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed Effects not shown; (ii) Hall Gingerich index is time invariant and would therefore be fully collinear with country fixed effects.

Table A2.14: The determinants of changes in temporary work regulations – Alternative measures of openness

Columns	(1)	(2)	(3)
Dependent variable	Sum change in temporary work fixed-term contracts and new contracts		
Coordination Dummy (0 low coordination, 1 high coordination)	1.43210*** (0.323)	1.27010*** (0.298)	1.39807*** (0.306)
Left power (1 if left controls > 50% of cabinet seats)	-0.54520 (0.463)	-0.60954 (0.494)	-0.56352 (0.468)
Employment Protection Legislation (overall, lagged once)	1.57884** (0.766)	1.66837** (0.795)	1.65780** (0.798)
Share of temporary employment (% dependent employment, lagged once)	-0.09584 (0.104)	-0.11731 (0.099)	-0.10933 (0.103)
Rate of Unemployment (% Civilian Labour Force, lagged once)	0.29950*** (0.087)	0.28354*** (0.089)	0.29787*** (0.088)
Imports from Emerging and developing economies (% of GDP)	0.15376 (0.101)		
Exports to Emerging and developing economies (% of GDP)		0.41404*** (0.155)	
Trade to and from Emerging and developing economies (% of GDP)			0.13907** (0.068)
Constant cut1	1.48418	1.65007	1.62219
Constant cut2	4.13747	4.32204	4.28386
Constant cut3	9.49128***	9.69880***	9.66036***
Constant cut4	10.85854***	11.07110***	11.02802***
Constant cut5	12.60157***	12.82682***	12.77454***
Observations	269	269	269
Fixed effects i	Yes	Yes	Yes
Cubic trend ii	Yes	Yes	Yes
Log pseudo-likelihood	-179.61	-178.22	-178.95
Pseudo R-squared	0.13	0.13	0.13

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed Effects not shown; (ii) Cubic trend refers to the inclusion of a trend a squared trend and a cubic trend as recommended by Carter and Signorino (2010).

Table A2.15: The determinants of changes in temporary work regulations – Alternative measures of left strength

Columns	(1)	(2)	(3)	(4)
Dependent variable	Flexibility of fixed-term contracts, agency work and new contracts			
Coordination Dummy (0 low coordination, 1 high coordination)	1.29763*** (0.341)	1.24221*** (0.368)	0.94886* (0.495)	1.04183** (0.422)
Employment Protection Legislation (overall, lagged once)	1.19110 (0.770)	1.31284** (0.653)	1.50738* (0.813)	1.57231** (0.714)
Share of temporary employment (% dependent employment, lagged once)	-0.08006 (0.106)	-0.06183 (0.097)	-0.09617 (0.104)	-0.07426 (0.099)
Rate of Unemployment (as % of Civilian Labour Force, lagged once)	0.24323*** (0.085)	0.24899*** (0.074)	0.27708*** (0.070)	0.28152*** (0.067)
Total Trade (Trade-to-GDP-ratio, lagged once)	-0.02168 (0.026)	-0.01401 (0.021)	-0.01684 (0.026)	-0.00844 (0.022)
Share of cabinet seats controlled by the left	-0.00712 (0.007)			
Share of cabinet seats controlled by the left (3 years moving average)		-0.00262 (0.005)		
Share of parliamentary seats controlled by the left			-0.06287**	
Share of parliamentary seats controlled by the left (3 years moving average)				-0.04687 (0.031)
Constant cut1	-1.25830	-0.54363	-3.81646	-1.77559
Constant cut2	1.32273	2.09176	-1.23725	0.86572
Constant cut3	6.78116	7.36800**	4.32857	6.23324*
Constant cut4	8.07431*	8.73647**	5.63650	7.61043**
Constant cut5	9.82038**	10.48270***	7.40307	9.36795**
Observations	255	269	255	269
Fixed effects (i)	Yes	Yes	Yes	Yes
Cubic trend (ii)	Yes	Yes	Yes	Yes
Log pseudo-likelihood	-167.72	-181.15	-165.93	-179.82
Pseudo R-squared	0.13	0.12	0.14	0.12

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed Effects not shown; (ii) Cubic trend refers to the inclusion of a trend a squared trend and a cubic trend as recommended by Carter and Signorino (2010).

Table A2.16: Jack-knife robustness checks – country exclusion

Country excluded	Austria	Belgium	Denmark	Finland	France	Germany	Greece
Dependent variable	Flexibility of fixed-term contracts, agency work and new contracts						
Coordination Dummy <i>(0 low coordination, 1 high coordination)</i>	1.28368*** (0.380)	1.25308*** (0.361)	1.32029*** (0.389)	1.32507*** (0.362)	1.33072** (0.530)	1.40310*** (0.406)	0.79140*** (0.283)
Left power <i>(1 if left controls > 50% of cabinet seats)</i>	-0.52459 (0.459)	-0.53696 (0.533)	-0.75665 (0.479)	-0.49939 (0.487)	-0.54108 (0.502)	-0.47354 (0.454)	-0.85769 (0.563)
Employment Protection Legislation <i>(overall, lagged once)</i>	1.30417** (0.644)	1.30530** (0.626)	1.45278** (0.727)	1.31991** (0.648)	2.01361** (0.866)	1.17504* (0.671)	1.08869* (0.559)
Share of temporary employment <i>(% dependent employment, lagged once)</i>	-0.06724 (0.102)	-0.08110 (0.100)	-0.07135 (0.109)	-0.06389 (0.099)	0.01463 (0.107)	-0.06239 (0.102)	-0.21614*** (0.074)
Rate of Unemployment <i>(%Civilian Labour Force, lagged once)</i>	0.26126*** (0.092)	0.27267*** (0.101)	0.28507*** (0.100)	0.27633*** (0.094)	0.24696*** (0.092)	0.25823** (0.114)	0.33364*** (0.125)
Total Trade <i>(Trade-to-GDP-ratio, lagged once)</i>	-0.01394 (0.025)	-0.00335 (0.025)	-0.00601 (0.025)	-0.00820 (0.023)	-0.02592 (0.021)	-0.01411 (0.026)	-0.03354* (0.020)
Constant cut1	45.19736**	-1.29075	1.25408	0.27482	2.23536	-0.62346	-3.92605
Constant cut2	47.84500**	1.35308	3.91100	2.82339	4.78760	1.93257	-1.27928
Constant cut3	53.09039***	6.55180*	9.15957***	8.10131**	10.15311**	7.43278**	4.26575
Constant cut4	54.43055***	8.01533**	10.43248***	9.47206***	11.60368***	9.10980***	5.67342**
Constant cut5	56.17865***	10.23092**	12.19452***	11.21599***	13.28058***	10.30499***	7.32649***
Observations	257	247	247	259	247	247	247
Fixed effects (i)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed effects not show here, refers to both country effects and the inclusion of cubic time controls as recommended by Carter and Signorino (2010).

Table A2.16: Jack-knife robustness checks (continued)

Columns Dependent variable	Ireland	Italy	Netherlands	Portugal	Spain	Sweden	UK
	Flexibility of fixed-term contracts, agency work and new contracts						
Coordination Dummy (0 low coordination, 1 high coordination)	1.39583*** (0.425)	1.50513*** (0.526)	1.31246*** (0.364)	1.16110*** (0.380)	1.39858*** (0.407)	1.34355*** (0.384)	1.38614*** (0.373)
Left power (1 if left controls > 50% of cabinet seats)	-0.53606 (0.464)	-0.33989 (0.377)	-0.55377 (0.458)	-0.46058 (0.472)	-0.89550* (0.514)	-0.55878 (0.476)	-0.33366 (0.453)
Employment Protection Legislation (overall, lagged once)	1.26117* (0.735)	1.95985*** (0.755)	1.40511** (0.679)	1.35990* (0.734)	1.18362 (0.725)	1.39996** (0.674)	1.63338** (0.768)
Share of temporary employment (% dependent employment, lagged once)	-0.05238 (0.100)	-0.04969 (0.104)	-0.06272 (0.102)	-0.05042 (0.120)	-0.06265 (0.126)	-0.06650 (0.103)	-0.09635 (0.097)
Rate of Unemployment (%Civilian Labour Force, lagged once)	0.26405** (0.116)	0.24692*** (0.083)	0.25485*** (0.092)	0.23014*** (0.087)	0.37309*** (0.089)	0.26896*** (0.095)	0.28126*** (0.070)
Total Trade (Trade-to-GDP-ratio, lagged once)	-0.01750 (0.032)	-0.01534 (0.024)	-0.01082 (0.025)	-0.01105 (0.024)	0.00302 (0.023)	-0.01016 (0.024)	-0.01273 (0.022)
Constant cut1	-0.00732	2.19194	-0.18945	0.11288	1.02298	0.48338	2.50502
Constant cut2	2.60180	4.79823	3.07217	2.60543	4.09136	3.03546	5.05685
Constant cut3	7.71873**	10.22325**	8.25038**	8.04896**	9.59190***	8.44423**	10.37263***
Constant cut4	9.09385**	11.54533***	9.62359***	9.30813**	10.93501***	9.78348***	11.71947***
Constant cut5	10.83932***	13.75115***	11.37068***	11.05494***	12.67995***	11.53362***	13.48661***
Observations	248	247	248	248	249	259	247
Fixed effects (i)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; (i) Fixed effects not show here, refers to both country effects and the inclusion of cubic time controls as recommended by Carter and Signorino (2010).

Table A2.17: Stepwise inclusion of variables

Columns	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Flexibility of fixed-term contracts, agency work and new contracts					
Employment Protection Legislation <i>(overall, lagged once)</i>	0.70884** (0.294)	0.62624* (0.378)	0.63173* (0.360)	0.53329 (0.381)	0.69229* (0.417)	0.78906* (0.469)
Coordination Dummy <i>(0 low coordination, 1 high coordination)</i>	1.29930*** (0.198)	1.37759*** (0.208)	1.39814*** (0.195)	1.41100*** (0.187)	1.40511*** (0.249)	1.40423*** (0.238)
Left share of cabinet <i>(3 years moving average)</i>	-0.00336 (0.006)	0.00159 (0.005)	0.00151 (0.005)	0.00084 (0.004)	0.00049 (0.005)	0.00048 (0.005)
Share of temporary employment <i>(% dependent employment, lagged once)</i>		-0.03948 (0.039)	-0.04201 (0.039)	-0.04353 (0.042)	-0.04202 (0.051)	-0.04377 (0.051)
GDP growth			-0.05464 (0.090)	-0.08203 (0.094)	-0.10307 (0.108)	-0.11322 (0.119)
Rate of Unemployment <i>(3 years moving average)</i>				0.10383* (0.054)	0.09618* (0.051)	0.12096 (0.085)
Unit labour costs <i>(3 years moving average)</i>					-0.05065 (0.056)	-0.04725 (0.058)
Total Trade <i>(3 years moving average)</i>						0.01106 (0.025)
cut1	-2.37710*	-3.17755**	-3.31452**	-3.21876**	-2.96537*	-1.74432
cut2	0.23409	-0.57958	-0.71553	-0.61520	-0.36524	0.85364
cut3	5.16777***	4.40423***	4.27322***	4.41786***	4.67575***	5.89283***
cut4	6.62816***	5.71939***	5.58992***	5.74168***	6.00402***	7.22510**
cut5	8.30553***	7.40805***	7.27948***	7.43574***	7.70401***	8.92819***
Observations	308	269	269	269	269	269
Country FE	Yes	Yes	Yes	Yes	Yes	Yes

Note: Ordinal logistic regression with robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Appendix A2.4: Qualitative section on France

Table A2.18: Educational profile of temporary workers in comparative perspective

Highest level of education	Employment contract unlimited or limited duration	Lower secondary education completed (ISCED 2)	Upper secondary education completed (ISCED 3)	Post-secondary non-tertiary education completed (ISCED 4)	Tertiary education completed (ISCED 5-6)
Austria	Unlimited	14.3	68.6	8.4	8.5
	Limited	32.3	51	7.6	8
Belgium	Unlimited	18	38	0	33.5
	Limited	23.5	39.9	0	29.5
Germany	Unlimited	6.8	64	6.6	21.5
	Limited	15.3	55.6	6.8	20.3
Denmark	Unlimited	15.7	35.8	0	47.8
	Limited	16.1	30.6	0	50.8
Spain	Unlimited	18	17.7	10.9	26.3
	Limited	25.3	17.6	10.4	19.1
Finland	Unlimited	11.1	35.2	0	33.9
	Limited	16.8	42.3	0	27.2
France	Unlimited	10.4	42.3	0	31.4
	Limited	12.3	48.4	0	26.2
UK	Unlimited	20.7	11.3	0	47.1
	Limited	22.6	10.4	0	45.2
Ireland	Unlimited	12.9	22.5	0	54.2
	Limited	17.7	21.5	0	45.9
Netherlands	Unlimited	29.6	27.1	8.5	26.5
	Limited	26.4	28.1	5.6	29.9

Source: European Social Survey, wave 2006.

Table A2.19: Partisan preferences among workers with limited and unlimited contracts

Political Party / Type of contract	Unlimited	Limited	No contract
PC (Parti Communiste)	3.22	6.99	2.16
LCR (Ligue Communiste)	2.05	2.14	2.33
LO (Lutte Ouvrière)	1.79	5.05	1.93
Sum of votes for extreme left parties	7.06	14.18	6.42
PRG (Parti Radical de Gauche)	1.92	2.08	3.82
PS (Parti Socialiste)	36.53	38.33	30.87
Divers gauche	1.04	0	1.49
Les Verts	5.29	5.91	2.81
Autres mouvements écologistes	1.21	0.94	0
Sum of votes for left leaning parties	45.99	47.26	38.99
Nouveau Centre	1.06	0.84	0
UDF (l'Union pour la Démocratie Française)- MoDem (Mouvement démocrate)	6.81	6.74	3.95
Sum of votes for centre right parties	7.87	7.58	3.95
UMP (Union pour un Mouvement Populaire)	29.4	22.69	46.27
MPF (Mouvement pour la France)	0.4	0	2.23
Divers droite	1.68	2.39	0
CPNT (Chasse, Pêche, Nature, Traditions)	1.55	0.86	1.39
Sum of votes for right-wing parties	33.03	25.94	49.89
Extreme right parties (FN, Front National)	2.7	2.25	0
Total votes for the left	53.05	61.44	45.41
Total votes for the right	43.6	35.77	53.84
Other votes	0.21	0.85	0
Blanc	2.66	1.92	0.75
Nul	0.47	0	0
Total	100	100	100

Source: European Social Survey (round 4), own calculations.

Note: Party voted for in last national election (first round of the election), share of respondents voting for different parties by types of contracts.

Table A2.20: Partisan preferences among workers in different occupational groups

Political party	Legislators, senior officials and managers	Professionals	Technicians and associate professionals	Clerks	Service workers and shop and market sales workers	Craft and related trade workers	Plant and machine operators and assemblers	Elementary occupations
LCR (Ligue Communiste)	0	0.77	4.18	3.93	0.54	1.01	3.18	0
LO (Lutte Ouvrière)	0	1.66	1.31	0	4.21	3.11	1.37	5.58
PC (Parti Communiste)	2.6	2.2	3.71	3.89	3.13	6.31	6.06	2.91
EXTREME LEFT	2.6	4.63	9.2	7.82	7.88	10.43	10.61	8.49
PS (Parti Socialiste)	14	39.53	38.03	34.89	30.09	25.94	30.2	46.53
PRG (Parti Radical de Gauche)	1.84	1.32	1.65	4.12	1.86	1.71	7.31	1.49
Les Verts	2.35	8.63	3.97	3.46	5.78	5.3	4.25	4.67
Autres mouvements écologistes	1.81	0.93	1.9	1.01	0	0.91	2.85	0
Divers gauche	0	1.16	0.9	0.48	0	0.48	2.91	1.75
LEFT	20	51.57	46.45	43.96	37.73	34.34	47.52	54.44
Nouveau Centre	0.95	0.49	0.71	1.69	0	3.33	0	1.32
UDF (l'Union pour la Démocratie Française)- MoDem (Mouvement démocrate)	14.14	9.04	5.58	2.8	2.35	12.66	4.41	1.9

Political party	Legislators, senior officials and managers	Professionals	Technicians and associate professionals	Clerks	Service workers and shop and market sales workers	Craft and related trade workers	Plant and machine operators and assemblers	Elementary occupations
CENTRE RIGHT	15.09	9.53	6.29	4.49	2.35	15.99	4.41	3.22
UMP (Union pour un Mouvement Populaire)	56	30.76	31.79	26.63	39.18	30.04	29.04	19.11
Divers droite	0.93	1.75	0.77	4.37	1.35	2.14	0	0.82
CPNT (Chasse, Pêche, Nature, Traditions)	0	0	1.83	2.45	1.71	0.87	1.33	2.44
MPF (Mouvement pour la France)	1.17	0.42	0	0	1.82	0	0	1.03
RIGHT	58.1	32.93	34.39	33.45	44.06	33.05	30.37	23.4
EXTREME RIGHT - FN (Front National)	1.43	0.47	1.73	4.57	4.33	1.44	4.12	5.32
TOTAL LEFT	22.6	56.2	55.65	51.78	45.61	44.77	58.13	62.93
TOTAL RIGHT	74.62	42.93	42.41	42.51	50.74	50.48	38.9	31.94
Autres	0	0.38	0.35	0	0	0	1.49	0
Blanc	2.78	0	1.18	5.72	3.65	3.06	1.47	5.14
Nul	0	0.49	0.42	0	0	1.69	0	0

Source: European Social Survey (round 4), own calculations.

Note: Party voted for in last national election (first round), share of respondents voting for different parties by occupation.

Table A2.21: Notes and sources for Table 10

<p>(1) Source for employment status by occupations: European Social Survey data pooled 2, 3 4 rounds (i.e.: for surveys carried out in years 2004, 2006 and 2008). Note: own calculations using cross-tabulation of respondents' employment status and isco occupations.</p>
<p>(2) Source for fear of replacement by occupation: ISSP (2005). Note: own calculations using cross-tabulation of respondents' fear of replacement and isco occupations.</p>
<p>(3) Source: European Social Survey (round 4, year 2008), own calculations. Note: Party voted for in last national election (first round), share of respondents voting for different parties by occupation (for all results see Table A2.20).</p>
<p>(4) Source for votes by employment status: European Social Survey (round 4, year 2008). Note: Party voted for in last national election (first round of the election), share of respondents voting for different parties by types of contracts (pooled across all occupations). Own calculations using cross-tabulation of last vote and employment status (for full results see Table A2.19).</p>
<p>(5) Source: European Social Survey (round 4, year 2006). Note: this level of education refers to ISCED 3 level and refers to those that have only completed upper secondary education and so does not include respondents that have completed upper secondary and tertiary level education. Results for other countries available in Table A2.18.</p> <p><i>General note:</i> Left includes votes for the following parties in France: French communist party, socialist party, the radical party, communist revolutionary league (<i>Ligue Communiste Revolutionnaire</i> - LCR), Workers' struggle (<i>Lutte Ouvrière</i> - LO), and various green parties. Detailed results of cross-tabulation available from in Table A2.19 and Table A2.20.</p>

Appendix A2.5: Testing effect of share of craft workers

Table A2.22: The effect of the share of craft workers on reregulation of temporary work sector

Dependent variable	Sum change in temporary work, fixed term contracts and new contracts
EPL overall	0.72874***
<i>(lagged)</i>	(0.279)
Left power dummy	-0.09697
	(0.588)
Temporary work	-0.17123***
<i>(lagged)</i>	(0.049)
Openness	-0.00213
<i>(lagged)</i>	(0.006)
Unemployment rate	0.21904***
<i>(lagged)</i>	(0.063)
Craft and related trades	6.68843**
(share of total labour force)	(3.388)
Upper Secondary	0.01559
(share of	(0.010)
Constant cut1	
	-2.24942
Constant cut2	0.30383
Constant cut3	5.00742***
Constant cut4	6.74354***
Observations	139
Country fixed effects	No
Year fixed effects	Yes

Source: Dependent variables coded using the fRDB database. Share of craft workers calculated using European labour force survey broken down by occupation.

Note: All dependent variables are scaled following the FRDB convention, that is increases in the dependent variable refer to reforms that introduce more flexibility (i.e.: reduce regulations and/or protection of temporary work). Ordinal logistic regression with robust standard errors (clustered by country) in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

III: Appendix paper 3

List of Tables in Appendix A3.1 of paper 3

Table A3.1: Jack-knife robustness checks – sensitivity to exclusion of any one country

Table A3.2: Sample with 3 years period average

Table A3.3: Variables description and source

Table A3.4: Regression with alternative wage coordination index and different scaling of dualisation

Table A3.5: Jack-knife robustness check – sensitivity to exclusion of any one country (using alternative measures of dualisation and coordination)

List of Tables in Appendix A3.2 of paper 3

Table A3.6: The effect of temporary work on inequality mediated by coordination

Table A3.7: Marginal effect of temporary work in different coordination settings

Appendix A3.1

Table A3.1: Jack-knife robustness checks – stepwise country exclusion

Excluding	Belgium	Denmark	Finland	France	Germany	Ireland	Netherlands	Norway	Sweden	UK
GDP growth rate	0.02313	0.03000*	0.02593*	0.02115**	0.00405	0.02891**	0.02205*	0.02397*	0.02281*	0.02289
Rate of Unemployment	-0.00424 (0.008)	-0.00339 (0.008)	0.00617 (0.005)	-0.00735 (0.007)	0.00743 (0.006)	-0.00827 (0.006)	-0.00843* (0.005)	-0.00676 (0.007)	-0.00234 (0.009)	-0.00998 (0.007)
Trade-to-GDP-ratio	-0.00164 (0.001)	-0.00181*** (0.001)	-0.00211*** (0.000)	-0.00151*** (0.000)	-0.00093** (0.000)	-0.00204*** (0.000)	-0.00130*** (0.000)	-0.00176*** (0.001)	-0.00179*** (0.000)	-0.00192*** (0.000)
Union density	-0.00382*** (0.001)	-0.00416*** (0.001)	-0.00324*** (0.000)	-0.00303*** (0.001)	-0.00336*** (0.000)	-0.00391*** (0.000)	-0.00454*** (0.000)	-0.00367*** (0.001)	-0.00389*** (0.001)	-0.00401*** (0.000)
Left cabinet	-0.00005 (0.000)	-0.00018 (0.000)	-0.00003 (0.000)	0.00025 (0.000)	0.00016 (0.000)	-0.00024 (0.000)	-0.00023 (0.000)	-0.00000 (0.000)	-0.00007 (0.000)	0.00012 (0.000)
Total Public Social Expenditures	-0.01763 (0.012)	-0.01794* (0.009)	-0.02605*** (0.009)	-0.02380** (0.011)	-0.01984*** (0.004)	-0.01488* (0.008)	-0.01301** (0.005)	-0.01915** (0.009)	-0.02144* (0.012)	-0.01565* (0.009)
Index of coordination Hall Gingerich	0.55930*** (0.096)	0.55899*** (0.068)	0.56071*** (0.054)	0.64140*** (0.080)	0.08781 (0.187)	0.48519*** (0.089)	0.60663*** (0.068)	0.56569*** (0.070)	0.56455*** (0.068)	0.47575*** (0.150)
Dualisation (lagged)	0.01476*** (0.004)	0.01453*** (0.004)	0.01235*** (0.004)	0.01523*** (0.005)	0.00966*** (0.003)	0.01158*** (0.004)	0.01893*** (0.003)	0.01431*** (0.004)	0.01372** (0.006)	0.01595*** (0.005)
Replacement rate (unemployment benefits, year 1)	-0.00708*** (0.000)	-0.00721*** (0.001)	-0.00668*** (0.001)	-0.00792*** (0.001)	-0.00189 (0.003)	-0.00814*** (0.001)	-0.00641*** (0.001)	-0.00671*** (0.001)	-0.00721*** (0.001)	-0.00827*** (0.001)
Bad ALMPs (Spending on employment incentives and rehabilitation)	0.35379*** (0.103)	0.36471*** (0.073)	0.37034*** (0.061)	0.38895*** (0.076)	0.20953* (0.108)	0.41211*** (0.058)	0.37185*** (0.067)	0.32096*** (0.051)	0.37038*** (0.049)	0.37788*** (0.054)
Constant	2.09634***	2.11881***	2.18769***	2.18889***	2.08490***	2.19050***	1.93700***	2.14360***	2.19054***	2.25479***
Observations	102	94	101	89	94	103	90	100	101	89
Number of id	9	9	9	9	9	9	9	9	9	9
Country FE	No	No	No	No	No	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared overall	0.90	0.90	0.91	0.92	0.96	0.92	0.93	0.90	0.90	0.89

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A3.2: Sample with 3 years period average

Column	(1)	(2)	(3)	(4)	(5)
GDP growth rate	0.01513 (0.012)	0.00358 (0.012)	0.00643 (0.013)	0.02858** (0.014)	0.02535** (0.012)
Rate of Unemployment (% Civilian Labour Force)	-0.00845 (0.010)	-0.01175 (0.008)	-0.01067 (0.006)	-0.00455 (0.006)	-0.01183** (0.006)
Trade-to-GDP-ratio	-0.00085 (0.001)	-0.00177 (0.002)	-0.00243 (0.002)	-0.00162*** (0.001)	-0.00133*** (0.000)
Union density	-0.00392*** (0.001)	0.00327 (0.004)	0.00199 (0.003)	-0.00372*** (0.001)	-0.00407*** (0.001)
Left cabinet	0.00021 (0.000)	0.00012 (0.000)	0.00015 (0.000)	0.00048 (0.000)	0.00058 (0.000)
Public Social Expenditures	-0.01396 (0.010)	-0.00724 (0.012)	-0.01279 (0.011)	-0.02152*** (0.006)	-0.01811*** (0.007)
Index of coordination	0.33333 (0.265)	(omitted)	(omitted)	0.52236*** (0.077)	0.37454*** (0.060)
Dualisation index (temporary work/EPL temporary work)	0.01708** (0.007)	0.00657** (0.003)	0.00652** (0.003)	0.01185*** (0.003)	0.01055*** (0.002)
Bad APLMPs (employment incentives and rehabilitation)			0.24041* (0.113)	0.37602*** (0.055)	0.33843*** (0.051)
Replacement rate (1 st year unemployment)				-0.00803*** (0.001)	-0.00686*** (0.000)
Manufacturing sector (% total employees)					0.01168** (0.005)
Constant	1.83604*** (0.263)	1.81831*** (0.467)	1.96748*** (0.372)	2.27011*** (0.126)	2.04369*** (0.186)
Observations	65	65	65	51	48
Number of id	14	14	14	14	13
Country FE	No	Yes	Yes	No	No
Year FE	Yes	No	No	Yes	Yes
R-squared within	0.34	0.27	0.30	0.51	0.56
R-squared between	0.84	0.00	0.00	0.97	0.99
R-squared overall	0.73	0.01	0.01	0.92	0.93

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A3.2 (continued): Sample with 3 years period average

Column	(6)	(7)	(8)	(9)	(10)
GDP growth rate	0.01106 (0.015)	0.02795* (0.014)	0.02723 (0.017)	0.02896** (0.014)	0.02735* (0.014)
Rate of Unemployment (% Civilian Labour Force)	-0.00261 (0.007)	-0.00605 (0.005)	-0.00217 (0.008)	-0.00571 (0.006)	-0.00377 (0.005)
Trade-to-GDP-ratio		-0.00149*** (0.001)	-0.00145** (0.001)	-0.00162*** (0.001)	-0.00159*** (0.001)
Union density	-0.00432*** (0.000)	-0.00369*** (0.001)	-0.00405*** (0.000)	-0.00352*** (0.001)	-0.00379*** (0.000)
Left cabinet	0.00055 (0.000)	0.00049 (0.000)	0.00056 (0.000)	0.00053 (0.000)	0.00052 (0.000)
Public Social Expenditures	-0.01867*** (0.005)	-0.02179*** (0.005)	-0.02118*** (0.005)	-0.02156*** (0.006)	-0.01876*** (0.006)
Index of coordination	0.55882*** (0.062)	0.55279*** (0.089)	0.47928*** (0.108)	0.53116*** (0.089)	0.48453*** (0.077)
Dualisation index (temporary work/EPL temporary work)	0.01342*** (0.002)	0.01236*** (0.003)	0.01070*** (0.003)	0.01186*** (0.003)	0.01215*** (0.003)
Bad APLMPs (employment incentives and rehabilitation)	0.35317*** (0.051)	0.38670*** (0.058)	0.35861*** (0.071)	0.37882*** (0.057)	0.39362*** (0.053)
Replacement rate (1 st year unemployment)	-0.00791*** (0.001)	-0.00807*** (0.001)	-0.00755*** (0.001)	-0.00818*** (0.001)	-0.00838*** (0.001)
Imports from Emerging and developing economies	-0.01919*** (0.004)				
Union centralisation		-0.07903 (0.079)			
Statutory Minimum wage (0 1 dummy)			-0.03362 (0.038)		
Educational attainment				-0.00593 (0.007)	
Consumer price index					0.01599 (0.010)
Constant	2.20866*** (0.120)	2.29197*** (0.140)	2.27037*** (0.119)	2.32307*** (0.155)	2.16633*** (0.151)
Observations	51	51	51	51	51
Number of id	14	14	14	14	14
Country FE	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
R-squared within	0.43	0.51	0.50	0.51	0.51
R-squared between	0.98	0.98	0.97	0.98	0.98
R-squared overall	0.91	0.92	0.92	0.92	0.92

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A3.2 (continued): Sample with 3 years period average

Column	(11)	(12)	(13)
GDP growth rate	0.03144** (0.015)	0.02887** (0.014)	0.02729* (0.016)
Rate of Unemployment (% Civilian Labour Force)	-0.00408 (0.006)	-0.00811 (0.005)	-0.00448 (0.008)
Trade-to-GDP-ratio	-0.00154*** (0.001)	-0.00163*** (0.001)	-0.00162*** (0.001)
Union density	-0.00385*** (0.001)	-0.00334*** (0.001)	-0.00377*** (0.001)
Left cabinet	0.00043 (0.000)	0.00060 (0.000)	0.00045 (0.000)
Public Social Expenditures	-0.02078*** (0.007)	-0.02180*** (0.007)	-0.02278** (0.009)
Index of coordination	0.54807*** (0.078)	0.50942*** (0.093)	0.52246*** (0.083)
Dualisation index (temporary work/EPL temporary work)	0.01286*** (0.002)	0.01092*** (0.002)	0.01170*** (0.004)
Bad APLMPs (employment incentives and rehabilitation)	0.36890*** (0.059)	0.31615*** (0.062)	0.36862*** (0.049)
Replacement rate (1 st year unemployment)	-0.00779*** (0.001)	-0.00731*** (0.001)	-0.00788*** (0.001)
Bargaining coverage	-0.00033 (0.001)		
Public sector employees (% total employees)		-0.00221 (0.004)	
R&D spending (lagged)			0.01279 (0.034)
Constant	2.22990*** (0.130)	2.34761*** (0.110)	2.28968*** (0.173)
Observations	50	48	50
Number of id	14	13	13
Country FE	No	No	No
Year FE	Yes	Yes	Yes
R-squared within	0.52	0.55	0.51
R-squared between	0.97	0.98	0.97
R-squared overall	0.91	0.92	0.92

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table A3.3: Variables description and source

Variables	Description and source
Wage inequality at the low end of the income distribution (dependent variable)	Earnings - dispersion measures - ratio of the 5 th -to-1 st - where fifth (or median) and first deciles are upper-earnings decile limits, unless otherwise indicated, of gross earnings of full-time dependent employees. (source: OECD Employment and Labour Market Statistics).
Adjusted Bargaining Coverage	(0-100) = employees covered by wage bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargaining, expressed as percentage, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain (Visser, 2009).
GDP growth	GDP, volume – annual growth rates in percentage (OECD Main Economic Indicators database).
Unemployment rate	Rate of Unemployment as % of Civilian Labour Force (OECD Labour Force Statistics).
Openness	Trade-to-GDP-ratio (total trade) - Current prices, current exchange rates (OECD Main Economic Indicators database).
Left share of cabinet	Left party cabinet portfolios as a percent of all cabinet portfolios (Source: Swank Electoral, Legislative, and Government Strength of Political Parties by Ideological Group in Capitalist Democracies, 1950-2006: A Database).
Left share of parliament	Left party legislative seats as a percent of all legislative seats (source: Swank Electoral, Legislative, and Government Strength of Political Parties by Ideological Group in Capitalist Democracies, 1950-2006: A Database).
Union density	Union Density, net union membership as a proportion wage and salary earners in employment (0-100) = $NUM * 100 / WSEE$; where WSEE is Wage and Salary Earners in Employment (1- ∞) = employed wage and salary workers; and NUM is Net Union Membership (1- ∞) = TUM minus union members outside the active, dependent and employed

	labour force (Source: Visser, 2009).
Union centralisation	Summary measure of centralisation and coordination of union wage bargaining, taking into account both union authority and union concentration at multiple levels (0-1) = given by $\sqrt{[(C_{\text{authority}} * H_{\text{cf}}) + (A_{\text{authority}} * H_{\text{aff}})]}$, weighting the degree of authority or vertical coordination in the union movement with the degree of union concentration or horizontal coordination, taking account of multiple levels at which bargaining can take place and assuming a non-zero division of union authority over different levels (source: Visser, 2009).
Consumer Price Index (CPI)	Consumer Price Index (CPI) (source: OECD statistic website).
Education	This is the educational attainment of the total population aged 15 and over expressed as average years of schooling (Source: CEPS-OECD database).
Minimum wage	Recodes Visser's (2009) 8 scale of minimum wage settings into two: the existence (coded 1 – coded 2-8 in Visser's database) or not (coded 0 – coded 0-1 in Visser's database) of a national minimum wage.
Relative minimum wage	Ratio of minimum wages to median earnings of full-time employees. Median rather than mean earnings provide a better basis for international comparisons as it accounts for differences in earnings dispersion across countries (OECD Labour Force Survey dataset).
Replacement rate	Gross benefit replacement rates data are provided by OECD with one observation every two years for each country. In this case the data refer to the first year of unemployment benefits, averaged over three family situations and two earnings levels. The benefits are a percentage of average earnings before tax (Source: CEPS-OECD database).
Employment incentives and rehabilitation	1. Recruitment incentives are programmes making payments for a limited period only to facilitate the recruitment of unemployed persons and other target groups into jobs where the majority of the labour cost is covered by the employer. They include payments to individuals that are conditional upon the take-up of a new job (back-to-work bonus,

	<p>mobility/relocation allowance or similar) only if they are targeted (e.g. restricted to the long-term unemployed).</p> <p>2. Employment maintenance incentives are similar but facilitate continuing employment, in a situation of restructuring or similar. Generally-available in-work benefits for low-income groups should not be included.</p> <p>(Source: OECD Employment outlook).</p>
Employment Protection Legislation of temporary workers	OECD indicators of employment protection are synthetic indicators of the strictness of regulation on dismissals (Source: OECD Employment database).
Employment Protection Legislation of regular workers	OECD indicators of employment protection are synthetic indicators of the strictness of regulation on the use of temporary contracts (Source: OECD Employment database).
Temporary workers	Share of temporary employment out of total dependent employees (Source: OECD Labour Force Survey Dataset).
Self-employed workers	Self-employment% of civilian employment (Source: OECD Labour Force Survey Dataset).
Involuntary part-time workers	Share of involuntary part-timers in total employment (in percentages; source: OECD Labour Force Survey Dataset).
Manufacturing sector	Manufacturing employees as % of total employees: Proxied by category D divided by total employees in all industries (source: KLEMS database).
Public sector	Public sector employees as % total employees: Proxied by categories L, M, N divided by total employees in all industries (source: KLEMS database).
Spending on Research and Development	Research and development (R&D) expenditure statistics performed in the business enterprise sector divided by Gross Domestic Product (both in 2005 constant prices) (Source: OECD Structural Analysis Database).
Trade from	Imports and Exports to emerging and developing countries as % of

Emerging and Developing Market Economies	GDP (Source: IMF, Department of Trade).
Index of coordination	Composite index comprising shareholder power, dispersion of control, size of stock market, degree of wage coordination, and labour turnover (Hall and Gingerich, 2004: 11).
Public Social Expenditures	Total Public Social Expenditures, expressed as % of GDP (source: OECD stats).
Wage share	The annual labour income share is calculated for this database as total labour costs divided by nominal output. The term labour income share is used as the total labour costs measure relates to compensation of employees adjusted for the self-employed (source: OECD Social Expenditures database).
Immigration	Total inflows of foreign population in each country (source: OECD statistics website).
Unit Labour cost	Unit labour costs measure the average cost of labour per unit of output. They are calculated as the ratio of total labour costs to real output, or equivalently, as the ratio of average labour costs per hour to labour productivity (output per hour). As such, a unit labour cost represents a link between productivity and the cost of labour in producing output. The data presented in this dataset are an output of the OECD System of Unit Labour Cost and Related Indicators which produces annual and quarterly unit labour cost measures according to a specific methodology to ensure data are comparable across OECD countries. (source: OECD Labour Force Survey Statistics).
Female labour force participation	Civilian labour force of females as % of pop 15-64 (source: OECD Labour Force Survey Statistics).

Table A3.4: Regression with alternative wage coordination index and different scaling of dualisation

Columns	(1)	(2)	(4)	(5)	(6)	(7)
GDP growth rate	0.01725	0.02365*	0.02615*	0.02541**	0.02133	0.02349*
Rate of Unemployment	-0.01733	-0.00267	0.00232	-0.01675***	0.00171	-0.00240
Trade-to-GDP-ratio	-0.00112	-0.00237***	-0.00267***	-0.00228***	-0.00178***	-0.00237***
Union density	-0.00455***	-0.00435***	-0.00423***	-0.00464***	-0.00504***	-0.00426***
Left cabinet	-0.00040	-0.00019	-0.00017	-0.00062**	-0.00003	-0.00018
Public Social Expenditures	0.00833	-0.00864	-0.01062	0.00422	-0.00994	-0.00917
Wage coordination index	0.05444**	0.05607***	0.04326**	0.03958***	0.04528***	0.05470**
Alternative index of dualisation (i)	0.31431***	0.15051**	0.11693**	0.14344***	0.13112***	0.14576*
Replacement rate (<i>first year</i>)	-0.00639***	-0.00822***	-0.00814***	-0.00904***	-0.00687***	-0.00829***
Spending on Employment incentives and rehabilitation (% of GDP)		0.34538***	0.34022***	0.35354***	0.31180***	0.34702***
Union centralisation			0.21055*			
Bargaining coverage				-0.00047		
Rescaled 0 1 minimum wage dummy					-0.07672***	
Employment Protection Legislation for regular workers						0.00436
Constant	1.75821***	2.17083***	2.15263***	2.13643***	2.17459***	2.17997***
Observations	107	107	107	104	107	107
Number of id	10	10	10	10	10	10
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared overall	0.83	0.86	0.86	0.89	0.88	0.86

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. (i) This index of dualisation first standardises the share of temporary workers and EPL of temporary work and then rescales the variables from 1 to 10 before taking the ratio of temporary work to EPL temporary work

Table A3.4: Regression with alternative wage coordination index and different scaling of dualisation (continued)

Columns	(8)	(9)	(10)	(11)
GDP growth rate	0.02285*	0.02443**	0.01250	0.01501
	(0.013)	(0.012)	(0.016)	(0.015)
Rate of Unemployment (% of Civilian Labour Force)	-0.00293	-0.00327	-0.01137	-0.00714
	(0.012)	(0.010)	(0.012)	(0.012)
Trade-to-GDP-ratio (Total trade)	-0.00246***	-0.00238***		
	(0.001)	(0.001)		
Union density	-0.00431***	-0.00428***	-0.00528***	-0.00493***
	(0.001)	(0.001)	(0.001)	(0.001)
Left cabinet	-0.00047		-0.00040	-0.00043
	(0.001)		(0.000)	(0.000)
Public Social Expenditures	-0.00938	-0.00862	0.00584	0.00776
	(0.010)	(0.009)	(0.012)	(0.012)
Wage coordination index	0.05688***	0.05409***	0.05078***	0.05222***
	(0.020)	(0.019)	(0.017)	(0.018)
Alternative index of dualisation (i) (lagged, standardised base values)	0.14460**	0.14418**	0.26745***	0.27497***
	(0.061)	(0.065)	(0.068)	(0.067)
Replacement rate (first year)	-0.00829***	-0.00800***	-0.00835***	-0.00844***
	(0.002)	(0.002)	(0.002)	(0.002)
Employment incentives and rehabilitation (Spending as % of GDP)	0.35057***	0.33908***	0.21913***	0.20571***
	(0.062)	(0.062)	(0.075)	(0.071)
Left cabinet (4 years moving average)		-0.00033		
		(0.000)		
Imports from Emerging and developing economies			-0.01915***	
			(0.005)	
Trade to and from Emerging and developing economies				-0.01242***
				(0.003)
Constant	2.21931***	2.17901***	1.88760***	1.80154***
Observations	107	107	107	107
Number of id	10	10	10	10
Country FE	No	No	No	No
Year FE	Yes	Yes	Yes	Yes
R-squared within	0.28	0.28	0.16	0.18
R-squared between	0.96	0.96	0.99	0.99
R-squared overall	0.86	0.86	0.85	0.85

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. (i) This index of dualisation first standardises the share of temporary workers and EPL of temporary work and then rescales the variables from 1 to 10 before taking the ratio of temporary work to EPL temporary work.

Table A3.4: Regression with alternative wage coordination index and different scaling of dualisation (continued)

Columns	(12)	(13)	(14)
GDP growth rate	0.02379*	0.02219*	0.02235
Rate of Unemployment	-0.00038	0.00022	-0.00520
Trade-to-GDP-ratio	-0.00233***	-0.00237***	-0.00252***
Union density	-0.00455***	-0.00437***	-0.00443***
Left cabinet	-0.00018	-0.00006	-0.00006
Public Social Expenditures	-0.00951	-0.00973	-0.01037
Wage coordination index	0.05237***	0.04934***	0.06552***
Alternative index of dualisation (<i>lagged</i>) (i)	0.14287***	0.15090**	0.15283*
Replacement rate (<i>first year</i>)	-0.00810***	-0.00856***	-0.00757***
Employment incentives and rehabilitation (<i>Spending as % of GDP</i>)	0.35586***	0.36930***	0.27506***
Educational attainment	0.00862		
Consumer price index		0.01816***	
Spending on Research and Development			-0.00205
Constant	2.10965***	2.16239***	2.20755***
Observations	107	107	96
Number of id	10	10	10
Year FE	Yes	Yes	Yes
R-squared overall	0.86	0.87	0.86

Note: Robust clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1. (i) This index of dualisation first standardises the share of temporary workers and EPL of temporary work and then rescales the variables from 1 to 10 before taking the ratio of temporary work to EPL temporary work.

Table A3.4: Regression with alternative wage coordination index and different scaling of dualisation (continued)

Columns	(15)	(16)	(17)	(18)
GDP growth rate	0.02364*	0.03103**	0.02349	0.02649**
Rate of Unemployment	-0.00522	0.01177	-0.00289	0.00257
Trade-to-GDP-ratio	-0.00274**	-0.00184***	-0.00242***	-0.00247***
Union density	-0.00439***	-0.00433***	-0.00430***	-0.00449***
Left cabinet	-0.00023	-0.00016	-0.00020	-0.00003
Public Social Expenditures	-0.00813	-0.00355	-0.00878	-0.00909
Wage coordination index	0.05809***	0.03801***	0.05588***	0.05662***
Alternative index of dualisation (<i>lagged</i>) (i)	0.14018*	0.16360***	0.15078**	0.12902**
Replacement rate (<i>first year</i>)	-0.00810***	-0.00697***	-0.00817***	-0.00831***
Employment incentives and rehabilitation (<i>Spending as % of GDP</i>)	0.36605***	0.32246***	0.34508***	0.38539***
Self-employment% of civilian employment	0.00556			
Share of involuntary part-timers in total employment		-0.04865***		
Civilian labour force females % of pop 15-64			-0.00027	
Unit Labour Cost				0.01075*
Constant	2.12480***	1.91840***	2.19081***	2.10527***
Observations	107	99	107	107
Number of id	10	10	10	10
Year FE	Yes	Yes	Yes	Yes
R-squared overall	0.86	0.89	0.86	0.87

Note: Robust clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1. (i) This index of dualisation first standardises the share of temporary workers and EPL of temporary work and then rescales the variables from 1 to 10 before taking the ratio of temporary work to EPL temporary work.

Table A3.5: Jack-knife robustness check using new measures of dualisation and coordination

Excluded country	Austria	Belgium	Denmark	Finland	France	Germany	Greece
GDP growth rate	0.02365* (0.013)	0.02174 (0.017)	0.03171* (0.018)	0.02446 (0.015)	0.02095 (0.013)	0.00774 (0.005)	0.02365* (0.013)
Rate of Unemployment as % of Civilian Labour Force	-0.00267 (0.011)	-0.00334 (0.012)	-0.00594 (0.011)	0.00702 (0.008)	-0.00572 (0.011)	0.01346* (0.008)	-0.00267 (0.011)
Trade-to-GDP-ratio (total trade)	-0.00237*** (0.001)	-0.00183 (0.002)	-0.00241*** (0.001)	-0.00273*** (0.001)	-0.00226*** (0.001)	-0.00093* (0.000)	-0.00237*** (0.001)
Union density	-0.00435*** (0.001)	-0.00418*** (0.001)	-0.00512*** (0.001)	-0.00384*** (0.000)	-0.00395*** (0.001)	-0.00293*** (0.000)	-0.00435*** (0.001)
Left cabinet	-0.00019 (0.000)	-0.00017 (0.000)	-0.00023 (0.000)	-0.00036 (0.000)	-0.00019 (0.000)	0.00036 (0.000)	-0.00019 (0.000)
Total Public Social Expenditures	-0.00864 (0.010)	-0.00601 (0.014)	-0.00455 (0.010)	-0.01045 (0.009)	-0.00870 (0.012)	-0.03028*** (0.007)	-0.00864 (0.010)
Wage coordination index (From 1 to 5)	0.05607*** (0.019)	0.05164* (0.027)	0.06543*** (0.017)	0.06482*** (0.017)	0.06345*** (0.024)	-0.01145 (0.019)	0.05607*** (0.019)
Dualisation index (i) (lagged once)	0.15051** (0.063)	0.13844** (0.067)	0.19779** (0.084)	0.18698*** (0.055)	0.17363** (0.080)	0.07174 (0.044)	0.15051** (0.063)
Replacement rate	-0.00822*** (0.002)	-0.00856*** (0.002)	-0.00833*** (0.002)	-0.00702*** (0.001)	-0.00891*** (0.002)	-0.00248 (0.002)	-0.00822*** (0.002)
Spending on employment incentives and rehabilitation programmes	0.34538*** (0.062)	0.31634*** (0.105)	0.28936** (0.120)	0.28298*** (0.064)	0.36549*** (0.082)	0.24844*** (0.086)	0.34538*** (0.062)
Constant	2.17083***	2.13057***	2.10428***	2.02611***	2.13647***	2.38431***	2.17083***
Observations	107	102	94	101	89	94	107
Number of id	10	9	9	9	9	9	10
Country FE	No	No	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared overall	0.86	0.85	0.86	0.87	0.87	0.94	0.86

Note: Robust clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1. (i) This index of dualisation first standardises the share of temporary workers and EPL of temporary work and then rescales the variables from 1 to 10 before taking the ratio of temporary work to EPL temporary work. In other words, this index of dualisation is higher the larger the share of temporary workers and the lower the regulation of the temporary work sector.

Table A3.5: Jack-knife robustness check using new measures of dualisation and coordination (continued)

	Ireland	Italy	Netherlands	Norway	Portugal	Spain	Sweden	UK
GDP growth rate	0.02561* (0.014)	0.02365* (0.013)	0.02062 (0.015)	0.02460* (0.014)	0.02365* (0.013)	0.02365* (0.013)	0.02087 (0.015)	0.02007 (0.016)
Rate of Unemployment as % of Civilian Labour Force	-0.01765*** (0.007)	-0.00267 (0.011)	-0.01048 (0.009)	-0.00561 (0.011)	-0.00267 (0.011)	-0.00267 (0.011)	0.00106 (0.012)	-0.01188 (0.009)
Trade-to-GDP-ratio (total trade)	-0.00236*** (0.001)	-0.00237*** (0.001)	-0.00156** (0.001)	-0.00251*** (0.001)	-0.00237*** (0.001)	-0.00237*** (0.001)	-0.00257*** (0.001)	-0.00250*** (0.001)
Union density	-0.00458*** (0.000)	-0.00435*** (0.001)	-0.00612*** (0.001)	-0.00422*** (0.001)	-0.00435*** (0.001)	-0.00435*** (0.001)	-0.00448*** (0.001)	-0.00366*** (0.000)
Left cabinet	-0.00058** (0.000)	-0.00019 (0.000)	-0.00030 (0.000)	-0.00009 (0.000)	-0.00019 (0.000)	-0.00019 (0.000)	-0.00020 (0.000)	0.00042 (0.001)
Total Public Social Expenditures	0.00327 (0.009)	-0.00864 (0.010)	-0.00273 (0.009)	-0.00925 (0.013)	-0.00864 (0.010)	-0.00864 (0.010)	-0.01404 (0.013)	-0.02154** (0.009)
Wage coordination index (From 1 to 5)	0.04023*** (0.015)	0.05607*** (0.019)	0.06855*** (0.015)	0.06133*** (0.019)	0.05607*** (0.019)	0.05607*** (0.019)	0.06056*** (0.018)	-0.00092 (0.018)
Dualisation index (i) (lagged once)	0.14463** (0.062)	0.15051** (0.063)	0.28599*** (0.064)	0.14286* (0.087)	0.15051** (0.063)	0.15051** (0.063)	0.10830 (0.078)	0.15705** (0.073)
Replacement rate	-0.00940*** (0.001)	-0.00822*** (0.002)	-0.00765*** (0.002)	-0.00790*** (0.002)	-0.00822*** (0.002)	-0.00822*** (0.002)	-0.00836*** (0.001)	-0.01248*** (0.002)
Spending on employment incentives and rehabilitation programmes	0.36411*** (0.078)	0.34538*** (0.062)	0.38315*** (0.081)	0.30665*** (0.100)	0.34538*** (0.062)	0.34538*** (0.062)	0.36986*** (0.057)	0.45746*** (0.099)
Constant	2.14765***	2.17083***	1.98909***	2.19587***	2.17083***	2.17083***	2.30640***	3.00513***
Observations	103	107	90	100	107	107	101	89
Number of id	9	10	9	9	10	10	9	9
Country FE	No	No	No	No	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared overall	0.89	0.86	0.90	0.86	0.86	0.86	0.85	0.86

Note: Robust clustered standard errors; *** p<0.01, ** p<0.05, * p<0.1. (i) This index of dualisation first standardises the share of temporary workers and EPL of temporary work and then rescales the variables from 1 to 10 before taking the ratio of temporary work to EPL temporary work. In other words, this index of dualisation is higher the larger the share of temporary workers and the lower the regulation of the temporary work sector.

Appendix A3.2

Table A3.5: The effect of temporary work on inequality mediated by coordination

Dependent variable	Wage inequality between the median and bottom income deciles
GDP growth	0.0385*** (0.0122)
Unemployment rate (lagged)	-0.0247** (0.0103)
Openness (lagged)	-0.000129 (0.00122)
Coordination dummy	0.0899 (0.112)
Share of temporary workers	0.0295* (0.0165)
Coordination dummy*	-0.0123 (0.0120)
Share of temporary workers	
Union density	-0.00373*** (0.000889)
Left share of Cabinet	-0.00105 (0.000762)
Unemployment benefits	-0.0116***
Replacement rate in first year	(0.00180)
Spending on employment	0.228*
Incentives	(0.132)
Constant	2.342***
Observations	129
Number of id	14

Note: Robust clustered standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.

Table A3.6: Marginal effect of temporary work in different coordination settings

Marginal effect of share of temporary workers in	dy/dx	Standard error	Z	P> z	[95% Conf. Interval]	
Low coordination countries	0.295	0.0165	1.79	0.074	-0.0029	0.0618
High coordination countries	0.017	0.0101	1.70	0.089	-0.0026	0.0370

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