

**European Growth Models and Working Class Restructuring**  
**before the Crisis**

Engelbert Stockhammer, Cédric Durand and Ludwig List

July 2015

*PKSG*

*Post Keynesian Economics Study Group*

Working Paper 1508

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# European Growth Models and Working Class Restructuring before the Crisis

**Abstract:** This paper builds on post-Keynesian macroeconomics, the Regulation Approach and a Neo-Gramscian International Political Economy approach to class analysis and offers an empirical analysis of European growth models and working class restructuring in Europe between 2000 and 2008. We will distinguish between the ‘East’, the ‘North’, and the ‘South’ and structure our analysis around industrial upgrading, financialisation and working class coherence. We find an export-driven growth model in the North, which came with wage suppression and outsourcing to the East. In the East the growth model can be characterised as dependent upgrading, which allowed for high real wage growth despite declining working class coherence. The South experienced a debt-driven growth model with a real estate bubble and high inflation rates resulting in large current account deficits. Our analysis shows that class restructuring forms an integral part in the economic process that resulted in European imbalances and the Euro crisis.

**Keywords:** European growth models, class analysis, labour relations, debt-driven growth, financialisation

**JEL classifications:** B5, P52, Z1

**Acknowledgements.** Engelbert Stockhammer and Ludwig List acknowledge support through INET grant INO013-00012 Rising inequality as a structural cause of the financial and economic crisis. Earlier versions of this paper have been presented at the International Labour Process Conference, London April 2014, and the Conference of the Association of Heterodox Economics, London June 2014. We are grateful to Dorothee Bohle, Yannis Dafermos, Andreas Nölke and Rafael Wildauer for helpful comments. All remaining mistakes are ours.

Engelbert Stockhammer, Kingston University London, KT1 2EE, Kingston upon Thames, UK; e.stockhammer@kingston.ac.uk

Cédric Durand, CEPN (CNRS/ University Paris 13), 99 Bd J-B Clément, F 93430 Villetaneuse; e-mail: cdurand@hess.fr

Ludwig List, CEPN (CNRS/ University Paris 13), 99 Bd J-B Clément, F 93430 Villetaneuse; e-mail: ludwig.list@reflex.at

## 1 Introduction

European countries have had quite different crises. While the Greek economy descended into depression, and Spain and Italy are struggling to get out of recession, Austria and Germany had short sharp recessions followed by recovery. Germany's unemployment rate is below that of 2007, whereas Spain and Greece have unemployment rates well above 20%. Today divergence is obvious. In contrast, the decade before the crisis is often regarded as one of convergence among European economies (European Commission 2008). This paper questions this view. We argue, firstly, that European growth models had been on different trajectories in the decade before the crisis and we identify three models. Second, we argue that these growth models were intimately linked with different forms of working class restructuring.

Diverging dynamics in Europe prior to the crisis was pointed out in the literature, based on a distinction between debt-driven and export-driven growth models (Hein, 2013; Stockhammer, 2011b, 2014), a subordinated integration of the Eastern periphery (Bohle, and Greskovits, 2012; Nölke and Vliegenhart, 2009) or resulting from diverse specialization paths between North and South (Boyer, 2013). The contribution of this paper is that it offers an empirical analysis of the decade preceding the crisis that integrates a class approach with a macroeconomic analysis of the articulation of European growth models. This analysis allows for different working class experiences in different country groups. We highlight that nation states are themselves structured along class lines and class formation and that class struggles are integral part of the processes that led to European imbalances. These struggles do take place locally and thus will take different forms, which among other things, will be shaped by the position and trajectory of a country in the international division of labour and the differential transformations of the capitalist economies, in particular the process of financialisation has had different impacts in different countries.

The paper thus asks two sets of questions. First, what have been the pattern and drivers of European growth models? And secondly, how are these growth models reflected in the changes in working class coherence? We use the term working class coherence to denote the unity and organisational ability of the working classes to assert their (economic) interest. We will argue that export orientation in the North came with a retreat of the working class, which is reflected in weak real wage growth, increasing wage dispersion and union decline and a heavy reliance on outsourcing to the eastern periphery. In the East, the catching up process driven by dependent integration into global value chains has allowed high real wage growth, while other indicators show that working class coherence has suffered. Wage dispersion has widened and there has been a strong decline in union density. Catching up has allowed for rapid real wage growth despite a disintegration of working class coherence. In the South the debt-driven boom has come with moderate increases in real wages, a stable wage dispersion and comparatively moderate decline in union density. This was a regime of an implicit social compromise, which was economically based on a bubble, but which differs from the Anglo-Saxon experience of the financial bubble, which came with a deterioration of working class coherence.

Our analytical framework is highly stylized. We will look at three groups of countries and two classes. The countries are the North, East and South. The classes are workers and capitalists. Class struggles

are not examined directly but we rather look at what macro data reveal about the outcomes of underlying changes of class configurations. We systematically compare several countries for each group by using indicators for the three dimensions financialisation, industrial upgrading and working class coherence.

The paper is structured as follows. Section 2 gives a review of the related literature. Section 3 presents a stylized description of the growth models of the North, East and West and their interrelations. Section 4 operationalises the concepts working class coherence, financialisation, and industrial upgrading and explain how they will be measured. The empirical analysis for these dimensions is presented in section 5. Section 6 discusses of working class restructuring in the three growth models and characterizes the hegemonic regime. Finally section 7 concludes.

## **2. A review of contributions of Post Keynesian Economics, French *Régulation* Approach, International Political Economy and Varieties of Capitalism**

Our analysis fuses a post-Keynesian analysis of demand regimes with the historico-institutional macroeconomics of the French *Régulation* approach and political analysis of international relations of Neo-Gramscian Political Economy. Post Keynesian Economics (PKE) is a non-mainstream economic approach that gives central role to the principle of effective demand. It is based on the concept of fundamental uncertainty and on social conflict (Lavoie 2009, King 2002). Its macroeconomic analysis is premised on a class division, but PKE does not provide a framework for the analysis of class relations. Rather it focuses on the economic outcomes of changing class relations. Post Keynesians (PKs) have long criticised the macroeconomic policy regime of the European Union. They have highlighted that reliance on wage flexibility will not be sufficient for adjustment and indeed wage flexibility can be destabilising.

Recently PKs have distinguished, as regards the partial effects of changes in income distribution, between wage and profit led demand regimes and, as regards the actual growth drivers under neoliberalism, between debt-led and export-led growth models. Hein (2013) and Stockhammer (2011a, 2014) are closest to the themes covered in this paper. Hein (2013) classifies countries by their demand drivers as domestic demand-led (France, Italy, Portugal), export-led (Germany, Austria, Netherlands, Finland, Belgium) and debt-led (Ireland, Spain, Greece). Stockhammer counterposes export-driven and debt-driven growth models (Germany, Austria, Netherlands and Greece, Spain, Portugal, Ireland, Italy respectively) based on the development of household debt and current account positions. Both highlight the deflationary bias of the European economic policy package and recommend ECB backing for member states public debt, expansionary fiscal policy and sustained wage growth; both do not analyse the implications of the growth models for working class restructuring and they do not include Eastern European countries in their analysis.

The Regulation Approach (RA) proposes an historical and institutional macroeconomic analysis. It stresses that macroeconomic dynamics (accumulation regimes) are shaped by institutional arrangements produced by social balance of power and material force of ideas (intellectual conjuncture, economic theory). The mode of regulation, in RA's classical version, consists of labour

relations, competitive relations, the monetary regime, the forms of state intervention and the insertion to the international regime. Boyer (2000) allows for a changing hierarchy of institutional forms accompanying EU integration. While labour relations were dominant during the Fordist period, afterwards competition and money have taken dominance. This fuels disruptive dynamics between socioeconomic demands raised by national democratic polity and technocratic supranational settings at the EU level (Durand and Keucheyan, 2015) resulting in a rising polarisation between a highly competitive northern Europe which was able to maintain a strong manufacturing export basis and a South specialized in domestic services (Boyer, 2013). Northern countries (Finland, Netherlands and Germany) are based on a long-term tradition of negotiated capitalism in which success in the world economy was a central objective while Southern countries (Spain, Italy, Portugal and Greece) used to be less prone to durable socioeconomic compromises and relied recurrently on inflation and currency devaluation to solve their macroeconomic imbalances. Using the PK toolkit, Duwicquet, Mazier, and Saadaoui (2012) show that one key manifestation of these discordant modes of regulation between the South (France, Italy, Spain, Portugal and Greece) and the North (Germany, the Netherlands, Belgium, Austria and Finland) is a misalignment of real exchange rates. The Euro being a fixed exchange rate system, the overvaluation of the South (with the exception of Italy) and the undervaluation of the North led to considerable 'implicit transfers' from the former to the latter (Mazier and Petit, 2013). Overall, for the RA, the inability of European integration to cope with the north-south divide in terms of competitiveness and the vanishing of the monetary adjustment mechanisms fuelled the euro crisis and revealed the fragility of the European polity.

Neo-Gramscian International Political Economy (NGIPE) combines a concern for class struggles and the establishment of hegemony within the nation state with an interest in international relations shaped by power relations. NIPE has posited the emergence of a transnational ruling class and analysed class interests in European integration. Bohle and Greskovits (2007, 2012) analyse Eastern European capitalism in the aftermath of the post-socialist transformation and distinguish between the state-crafted vs market-driven and embedded vs pure neoliberal regimes and group the post-socialist countries into the Visegrad group, the Baltics and Russia and the CIS. Becker and Jäger (2012) inspired by NIPE and the original Marxist roots of the RA analyse the interaction of European capitalisms and their regulation at different spatial scales. While their work deals in large part with the aftermath of the crisis and lacks a quantitative empirical analysis, they emphasise uneven economic development trajectories and distinguish between the core of Europe (Germany, Austria, Netherlands), which is characterised by active extraversion and productive accumulation, and the periphery (central European countries, Ireland, Spain, Greece, Portugal), which has passive extraversion and financial accumulation. Notably they make no distinction between the peripheral countries inside and outside the Eurozone, both being equally victims of austerity policies due to the monetary constraint, either via maintaining the exchange rate (Central and Eastern Europe) or through staying within the Eurozone.

Finally, the varieties of capitalism (VoC) approach emphasizes the institutional basis of capitalist economies and highlights that different configurations are possible. The distinction between liberal and coordinated market economies has become a hallmark of the approach. VoC has a strong emphasis on institutional functionality for international competitiveness and analyses corporate governance structures, labour relations and education systems. It has been criticized for overemphasising the functionality and the stability of the regimes (Hay, 2005). Nölke and

Vliegenthart (2009) take inspiration from NGIPE, but do stay on VoC terrain when they try to establish a Dependent Market Economy system for Eastern Europe (the Czech Republic, Hungary, Poland, and Slovakia). The dependent market economies heavily rely on foreign direct investment for investment, finance and technology transfer; they have incomplete social pacts and semi-organised labour markets and a weak innovations system. Dependent Market Economies tend thus to be trapped in a situation in which they remain assembly platforms with limited development prospects and highly vulnerable territories to external macroeconomic and financial shock.

VoC proponents analyse the developments in Europe leading up to the crisis as the result of the interaction of the core countries with coordinated wage bargaining and the periphery countries with weak bargaining coordination in a fixed exchange rate regime without central (European) fiscal policy (Johnston et al 2013, Hall 2014, see Nölke 2014 as a survey). The loss of competitiveness of the periphery is explained as the result of lack of wage restraint in the non-tradeable sectors among which the public sector wages are single out as the main culprit. Current account imbalances are analysed as result of cost differences and there is little concern for financialisation.

Our aim is thus in a sense more modest and in another sense more ambitious than the literature discussed above. It is more modest in that it is historically specific. We discuss the trajectories of different country groupings in the period of neoliberalisation in the early 2000s when western European countries established a single currency and eastern countries emerged out of the institutional shake-up of the post-soviet transformation. In doing so, we want to analyse the interaction of macroeconomic dynamics with changes in working class coherence. But, unlike VoC we do not aim to establish a general typology of capitalist economies, but rather describe historically specific development trajectories. We are thus closer to RA, which also analyses historically contingent accumulation regimes. Our project is more ambitious in that we try to combine a macroeconomic comparative analysis that takes into account demand formation as well as supply side (production) concerns with an analysis of class restructuring. Capitalist formations not only have to produce profits, but they also have to reproduce the working classes and maintain hegemony. As the pattern of capital accumulation changes, so will typically the structure of the working class, partly as the result, partly as the cause.

There is another important difference to VoC. While VoC requires internal coherence and external competitiveness for a viable model our grouping makes no claim of generalised validity and internal coherence. On the contrary, we regard the debt-driven and export-driven growth models as unstable in the longer term. There is no requirement of a competitive performance, but we do analyse the growth regime. In this, our macroeconomic analysis of the North and South agrees with those of Hein (2013) and Stockhammer (2011, 2014), but we go beyond their analysis in that we also analyse developments in Eastern Europe and that we highlight the close link between growth models and working class restructuring. Our approach shares much of the concerns of NGIPE, but we have a greater concern for demand formation and focus more on the (fragile) complementarity of the diverse accumulation regimes than on the dynamic of European integration as such. In terms of the specific analysis there is a substantial overlap with the analyses by Nölke and Vliegenthart (2009) and by the regulationists (Boyer, 2013; Mazier and Petit, 2013). We are even closer to Becker and Jäger (2012), but our main contribution is that we bring a strong empirical substance in identifying one export-driven model at the core and two dependent models: an Eastern model of subordinate catching up and a Southern one with debt-driven growth.

### 3. Neoliberalism and growth models in Europe: A stylised story of the East, North and South during the pre-crisis boom (ca 2000-2008)

Neoliberalism brought about a rise in inequality, financialisation, globalisation and privatisation (e.g. Harvey 2005). Our analysis focuses on the first two aspects. Rising inequality has taken the form of an increase in top incomes (Piketty and Saez 2003, 2007) and a fall in the wage share (Stockhammer 2013). It is based on welfare state retrenchment, globalisation and financialisation and reflects a shift in the power relations between capital and labour. Financialisation has affected financial institutions as well as households (e.g. through rising household debt), and firms (e.g. shareholder value orientation). However, the specific modalities of its implementation, its relation to existing social structures and the asymmetric international economic positions mean that neoliberalisation can have different outcomes (Fourcade-Gourinchas and Babb 2002). Neoliberal transformations have had different effects in different regions, thus some authors talk about variegated neoliberalism (Brenner et al. 2010). With respect to its macroeconomic dynamics Lavoie and Stockhammer (2013) point out the emergence of a debt-driven as well as an export-driven growth model. The rise in inequality has put a downward pressure on domestic demand in all countries. In some countries financialisation has led to a rapid increase in household debt, which substituted for wage growth (Barba and Pivetti 2009). Thus aggregate demand was fuelled by a debt-driven consumption boom. In a second group of countries the increase in household debt has not materialised. These countries have accepted a stagnation in domestic demand and net export growth has been the major source of demand growth. This was what we call export driven growth. Both growth models are unsustainable: they rely on increasing debt ratios. In the debt-driven case this is domestic household debt; in the export-driven case it is external debt of the trade partners (Stockhammer 2011a, Hein 2013). The two growth models are complementary as the export-driven model relies on trade partners with current account deficits. The debt-driven model is facilitated by capital inflows. This analysis only covers what we call the North and South. We extend this analysis to include the East.

Figure 1 gives a stylized depiction of the key features and the interaction of growth regimes and working class restructuring in the East, the North and the South in Europe. Post-socialist transformation in the East was a large scale restructuring of social relation that involved privatisations on an unprecedented scale. This allowed for a process of primitive accumulation in which former regime technocrats and foreign corporations acquired firms. It also created a huge pool of cheap labour. Foreign capital played a key role by outsourcing elements of the value chain. Important parts of the German automotive industry now rely on inputs from Poland, the Czech Republic, Slovakia and Hungary. King and Szelényi (2005) have called this 'capitalism from without'. For the East this meant a subordinate integration into global value chain (GVC), but it also allowed them to consolidate (a moderate) industrial sector. In class terms, this is a process of proletarianisation as workers in the former Soviet bloc had job security and of primitive accumulation as capital benefits from the political release of assets.

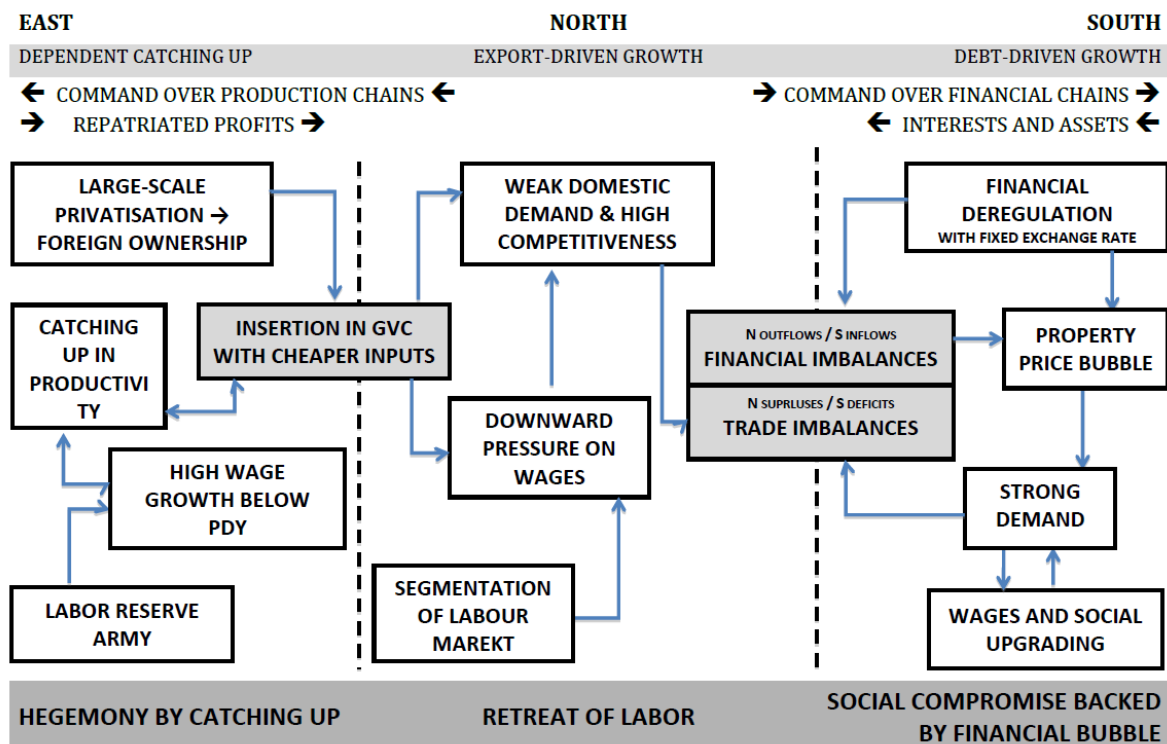


Figure 1: Key features and interactions of growth regimes and working class restructuring in the East, the North and the South in Europe

Note: GVC: global value chains

The North experienced a real devaluation as prices and unit labour costs (ULC) were growing more slowly than the EU average. This was, at least in part, the result of two strategies of Northern capital. First, there was wage suppression in the North. German wages have in real terms stagnated in the decade prior to the crisis. Through a series of welfare reforms, the so-called Hartz reforms, Germany has created a low wage sector (Giannelli and al., 2013). In labour relations, there was an erosion of collective bargaining (Dustmann et al., 2014). Starting from a high coverage of collective bargaining agreements, this coverage has declined sharply as capitalists increasingly opted out of collective bargaining. In addition firm-level modifications of sectoral wage agreements and concession bargaining have contributed to low wage growth and to the emergence of segmented labour market. These developments are closely linked to German unification as capitalists in Eastern Germany did not have the corporatist traditions and thus increasingly opted out of employer federation membership and thus of collective bargaining agreements. Second, German capital expanded by outsourcing elements of the value chain. Important parts of the German automotive industry now rely on inputs from Eastern Europe, which put a downward pressure on domestic wages. These developments resulted in a sluggish domestic demand and an increasingly export-oriented growth model.

The South experienced a property and financial bubble fuelled by rapid credit growth which were made possible by financial liberalisation and low real interest rates related to the introduction of the Euro. This has come in some cases with an economic boom (Spain and Ireland had above average growth rates, but Portugal and Italy average) and, in all cases, with high inflation rates. Competitiveness decreased, the industrial sector was squeezed and large current account deficits



resulted. At the same time the South had massive capital inflows that helped sustain (or ignite) the bubble and support domestic consumption growth. Budgetary conditions were rather relaxed and most Southern countries expanded the welfare state. Class struggle was partially suspended by welfare state expansion and an economic boom driven by non-tradable sectors. The working class was restructured: moderate, but non-trivial wage increases despite deindustrialisation and an increasing financialisation of households (the levels of household debt started at very low levels and increased massively).

Capital inflows have to be equal to the current account deficit (for each country). However, it is not clear to what extent this is driven by trade flows (and costs) and to what extent it is driven by capital flows. Our analysis does not privilege any specific causal chain, but highlights the interrelatedness of domestic processes within a structured international system. One could think of trade flows driving the whole process and trade surpluses (of the North) being recycled and transferred to the South to finance the imports. However, one can also argue that financialisation and high growth in the South made possible the export surpluses of the North. Similarly one could think about the East as largely being shaped by the strategies of northern multinationals; or one could locate the source of European dynamics in the vast expansion of the industrial reserve army that eastern European transformation meant for European capital. These mechanisms are going on simultaneously and evaluating their relative importance is beyond the scope of this paper.

The first important fact highlighted by our analysis is that class restructuring played a part in the economic process that resulted in European imbalances. Our second key finding is that class struggle has proceeded very differently in the different blocks in Europe. There has been no convergence in class struggles. This de-synchronisation of class struggles of Europe may help understand why it is so difficult to develop a progressive working-class vision for Europe.

#### 4. Operationalising our categories

In order to map the transformation of capitalist societies and economies in the decade prior to the crisis we analyse changes in three dimensions: working class coherence, financialisation and industrial upgrading. These dimensions are understood to be an integral part of the mode of regulation of an accumulation process. Working class coherence and financialisation are close relatives to categories of the RA, which identifies the labor-capital nexus and the monetary regime. All growth models will register changes in all three dimensions, but one of the premises of our research is that different growth models may have the main driver of transformations in one of the dimensions. In our case we hypothesise that working class restructuring was key in the North, dependent industrial upgrading in the East and financialisation in the South. However, a detailed analysis of the feedbacks from changes in one dimension to another, the identification of the main driver of changes and the articulation of different growth models is beyond the scope of this paper.

We use the term working class coherence to denote the unity and organisational ability of the working classes to assert its (economic) interests.<sup>1</sup> Our empirical measures describe the relative

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<sup>1</sup> Our analysis remains mostly at the level of economic variables, but ideally we would like to measure socio-political dimensions of working class coherence.

development of living conditions of the working classes. We will measure this by the growth of real and nominal wages. The dispersion of wages is used as a measure of the degree of division and segmentation of the working class. The strength of the welfare state is measured by the share of social expenditures relative to GDP; it measures the extent to which the reproduction of the working class is supported by the state. Finally, we use the organisational density of labour unions as a measure for the organisational strength of the labour movement. Our concept of working class coherence thus is close to the Regulationist analysis of the wage labour nexus, which is typically concerned with the extent of productivity indexation of wages, the extent of collective bargaining and the control regime at the workplace. However, our approach differs in that we offer more dimensions and that we have a greater concern for working class segmentation (see Gordon, Edwards and Reich 1982 for a seminal analysis of the role of segmentation in the USA).

Financialisation refers to the rise of financial claims and incomes relatively to the size of the real sector. Financialisation has affected non-financial business, the financial sector and households in different ways. Our aim is not a comprehensive description of these phenomena, but an analysis of the decade prior to the crisis. In this period the financialisation of household has played the most important role. Domestic credit (and in particular its growth in recent years) has been driven by mortgage credit, not credit to businesses and securitisation has played a minor role compared to the US experience. We are specifically concerned with the impact on demand formation, particular and the extent to which it has allowed for a debt-driven consumption growth model. Thus our analysis of financialisation focuses on household debt and property prices. We will measure this by the debt-to-income ratio for households, by real property prices (i.e. property prices relative to consumer prices) and real share prices.<sup>2</sup> The key variable for our purposes is the level and change in household debt. This is measured relative to income and indicates the extent of financialisation of households. The key variable determining changes in household debt is property prices. We also look at a broader measure of credit growth, which is private credit growth. This includes credit to firms. In the relevant period business debt has had moderate rates of increase. Real stock prices are a measure of financial asset prices. Finally, we report the net international investment position (NIIP) as measure of the financial position of the country vis à vis the rest of the world. Financialisation as used here has some overlaps with the Regulationist concept of the monetary regime, which depicts the forms of money creation and financing of the economy and how they impact upon the economy.

We use the category industrial upgrading to describe the extent and nature of industrial formation of the economy. Thus this includes the rate of growth of productivity as well as the extent to which it is driven by external factors and what its position within a given international division of labour is. This will be proxied by the growth of labour productivity, the share of manufacturing in value added and the inward FDI stock. With all our variables we are primarily interested in the *medium term changes*. The discussion of the different levels for each of the variables would be interesting in their

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<sup>2</sup> A more comprehensive measure of financialisation would include the effects on non-financial business (shareholder value orientation etc). Stock market capitalisation is often used as a measure of market-based financial systems and interpreted as 'sources of business finance' (Nölke and Vliegenthart 2009, p. 681). This is misleading because stock markets today are mostly about secondary trading and share issues are not an important source of business finance (Schaberg 1999). The econometric evidence indicates that investment hardly reacts to equity prices (e.g. Stockhammer and Wildauer 2015). Similarly it is misleading to interpret FDI inflows as source of business finance. FDI stocks are a measure of ownership, not financial flows. FDI can be financed domestically and need not bear any relation to business investment.

own right, but beyond the scope of this paper. This category cuts across some Regulationist categories as it includes elements of what the RA calls the technological paradigm as well as elements of what it discusses under insertion into the international regime.

We will group countries in the 'North', the 'South' and the 'East'. The North will be Germany, Austria and the Netherlands. These are countries of the Germanic block within the Euro area. They share a similar structure in labour relations, a comparatively developed welfare state and a strong industrial sector. The South will consist of Greece, Ireland, Italy, Portugal and Spain. These are the peripheral countries within the Euro area that were hit hard by the crisis. Their industrial base is weaker, but in many cases has improved over the past decades. The East consists of Poland, the Czech Republic, Slovakia, Hungary and Slovenia. These are post-communist economies that had a relatively strong industrial base, but have only integrated into the capitalist world economy in the 1990s. They have historically strong welfare that have been restructured and weak labour relations.<sup>3</sup>

The grouping of the countries is motivated by an understanding of European economic relations as encompassing economies with quite different economic developments that may have a differential experience of processes like globalisation, financialisation or European monetary integration. In particular we hypothesise that there are at least two peripheral models. Our grouping of countries is intended to be useful and serves the purpose of illustration. There are several potential issues. First, the delineation of groups is arbitrary at the border. We include the Euro area export-oriented countries, but could also have included non-Euro area countries (Denmark, Sweden). The North has one member of paramount importance: Germany. One could argue that the North ultimately *is* Germany. We prefer to use a small group for the North in order to not dilute Germany's contribution to the average data of the group.<sup>4</sup> Within this group, the Netherlands are an interesting intermediate case that has elements of an export-driven as well as of a debt-driven economy. As regards the South, the question is whether Italy should be included or not. For the East we decide to distinguish what is essentially the Visegrad group of countries. One could add another group of Bulgaria, Romania and the Baltic countries. All these are issues of implementing our grouping.

A final issue is countries that do not fit our categorisation. The most important case among these is France, which would occupy an intermediate position (Hein 2012 classifies France as 'domestic demand led regime'). The UK we would include in a distinct group of Anglo-Saxon countries (characterised by a high level of development and a strong financialisation experience).

The remainder of this paper will discuss whether empirical data are in line with our country grouping. There are two sets of questions. First, are the significant differences between the country groups such that the groupings are useful? Second, are the experiences within a group sufficiently homogenous to justify the use of the grouping?

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<sup>3</sup> The countries and their abbreviations are AUT-Austria, CZE-Czech Republic, ESP-Spain, DEU-Germany, GRC-Greece, HUN-Hungary, IRL-Ireland, ITA-Italy, NLD-Netherlands, PRT-Portugal, POL-Poland, SLV-Slovenia and SVK-Slovakia.

<sup>4</sup> Another possible strategy to deal with this would be to include a larger group of countries and use GDP-weighted averages.

## 5. Financialisation, industrial upgrading and working class coherence, in the North, South and East

### 5.1. Financialisation

We want to cover the period before the crisis and we will refer to the period 2000-08 unless noted otherwise. Table 1 summarises the different development of financialisation in Europe. Household debt as percentage of GDP increased 9.7%-pts in the north, 20.3%-pts in the East and by a staggering 45.9%-pts in the south. Household debt is to a large extent driven by house prices. These grew by 2.1% in real terms in the north, but 41.7% in the south. Within the group of the North the Netherlands experienced a steep increase in house prices and of household debt while Germany had both declining house prices and falling household debt. The picture within the southern countries is more uniform, but Spain and Ireland stand out with explosive increases in debt and house prices. Data on house prices are not available for all countries, in particular not for our eastern group. Private credit in % of GDP was subject to a moderate increase in the north, a very high increase in the South and a small increase in the East. The growth in equity prices is given for the period 2000 to 2007 because (unlike most other data we discuss in this paper) they start to decline already in 2008 and we wish to analyse the boom. We use 2007 as the base year for the calculation of growth rates.<sup>5</sup> They rose by 5% in northern countries and 0% in southern countries. The countries in the East experienced a stock market boom with an increase of 66% (with the Slovak Republic and Slovenia as the main drivers). The net international investment position (NIIP) represents the difference between a country's external financial assets and liabilities sides. A positive NIIP thus means that a country is a net lender, a negative one that it is a net borrower. Note that here we are comparing changes in the NIIP, rather than the level of NIIP itself, so we are looking at whether countries improved or worsened their net investment position. While thanks to Germany the North has a positive, modest increase in the NIIP, both southern as well as eastern countries worsened their net investment position.

	North	South	East
Δ household debt (%GDP)	9.7	45.9	20.3
Δ private credit (%GDP)	21.9	69.8	14.4
real house prices, growth (00-07)	2.1	41.7	
real stock prices, growth (00-07)	5%	0%	66%
Δ net international investment position (NIIP) (GDP %-pts)	16.4	-44.7	-30.8

<sup>5</sup> Share prices rose very fast in the east. Using a different base year gives very high growth rates for the east without changing the overall picture.

Δ denotes change. Household debt: Ireland, Slovenia 2001-08 Private credit: no data for SLV; house prices: no data for HUN, POL, SLV, SVK, PRT  
 Source: GDP deflator: OECD; stock prices: IMF; private debt, NIIP: WDI; household debt, house prices: Eurostat

According to this data overall the North experienced only a weak form of financialisation, with household debt and house prices only growing at comparatively weak rates. The South, experienced financialisation with a strong increase in household debt, private credit and house prices, and a worsening net investment position. Eastern countries had an intermediate form of financialisation with household debt increasing (in % of GDP) more than in the North but less than in the South. Its net investment position worsened. The eastern group is the only one that experienced a stock market boom, increasing by two thirds in the respective time period.

To investigate whether the countries in our groupings exhibit similar trends Table 2 shows the changes in household debt from 2000 to 2008 in percentage points of GDP by country. Similar tables for the other indicators in Table 1 can be found in the appendix. Household debt declined in Germany (by 11.7%-pts), it increased by modest 7.9%pts in Austria. The Netherlands stand out among the North with an increase of 32.8%-pts. The eastern countries mostly have double-digit increases, Slovenia with 9.4 %-pts. and the Czech Republic with 11.7%-pts have moderate increases and Hungary (30.5), Poland (24.5) and Slovakia (25.6) had strong increases. For comparison, the USA which is often regarded as the main example of a debt-led growth model had an increase of 26.1%-pts over the same period. Most of the countries of the South are above that level. Ireland has a spectacular 114.3%-pts increase, but Greece (35.5), Spain (33.8) and Portugal (27.4) are also above US increases. Only Italy at 18.4 is below that. The table thus clearly indicates some variation within our groups. Two countries do not neatly conform to our scheme. The Netherlands have a high increase and Italy does have a substantial increase, but clearly lower than other countries of the South.

North		South		East	
Austria	7.9	Greece	35.5	Czech Republic	11.7
Germany	-11.7	Ireland	114	Hungary	30.5
Netherlands	32.8	Italy	18.3	Poland	24.5
		Portugal	27.4	Slovenia	9.4
		Spain	33.8	Slovakia	25.6
<i>mean</i>	<i>9.7</i>	<i>mean</i>	<i>45.9</i>	<i>mean</i>	<i>20.3</i>
Note: Ireland, Slovenia 2001-08 Sources: Eurostat					

## 5.2. Industrial Upgrading

Table 3 summarises data concerning industrial upgrading in Europe. Real GDP per worker shows an 11% increase in the North, a 7% rise in the South and a 33% increase in the East. The development in

the South is somewhat heterogeneous with, Greece showing a 16% increase, but Spain only 4% and Italy 1% (see Table 4). The manufacturing share of value added as a percentage of GDP is used as a proxy for the degree of industrialisation. There is a general trend towards de-industrialisation across Europe. Remarkably, the North is stable with a loss of less than one percentage point of the manufacturing share in GDP. The southern countries showed strong decline in manufacturing (-5.2%-pts) and the East a moderate decline (-1.8%-pts). In terms of net FDI flows the East experienced an increase of 9.1 %-points of GDP. Conversely, the North had strong FDI outflows (the net FDI position changed by -7.7 %-points of GDP). This points to a polarisation between a Northern European core exporting FDI to the Eastern periphery. In the South the situation is mixed: on average the group shows a strong increased in the FDI position (+9.1% points) but this is entirely due to Ireland. The other southern countries experienced stable or declining net FDI inflows.

	North	South	East
Productivity (GDP per worker), growth	11%	7%	33%
Δ Manufacturing share (%GDP)	-0.8	-5.2	-1.8
Δ Inward net FDI /GDP (% points)	-7.7	19.1	9.1
Δ Inward FDI liabilities/total liabilities (% points)	4	-3.7	11.6
Current account 2000-07 (% GDP)	3.7	-5.3	-4.7

Note: Manufacturing share: no data for GRE; FDI: HUN, SLV, GRE 2001-08, Source: OECD

A sharp contrast between the South and the East becomes clear when looking at the weight of FDI liabilities over total liabilities. This indicator captures the evolution of the quality of financial inflows. It shows that the East clearly has experienced a big increase in FDI liabilities (11.6%-pts) as share of total liabilities, confirming a dynamic of modernisation of goods and service provisions thanks to foreign investment, whereas the South faced a decrease (-3.7%-pts) which presumably reflects a rise in debt and portfolio liabilities related to asset and real estate transactions. The North saw an increase of the ratio by 4%-pts. The North has had substantial current account surpluses in the decade prior to the crisis, where the South and the East had, on average substantial deficits (-5.3 and -4.7 respectively). The North and the South fit the post-Keynesian distinction of export-driven and debt-driven growth models well; the East would be an intermediate case.

Tables 4 and 5 allow to assess if countries in our groups exhibit similar trends in terms of upgrading. Concerning productivity growth, the East experienced growth above 27% in all countries. The productivity growth was between 8.8% and 11.8% in the North, with Germany being the lowest at 8.8%. In the South, the growth was much lower, ranging from in Italy (1.3%), Spain (3.9%) and Portugal (5.7%) and slightly higher in Ireland (9.5%). Only Greece (16.2%) had productivity growth above Nordic rates.

North		South		East	
Austria	11.8	Greece	16.2	Czech Republic	33
Germany	8.8	Ireland	9.5	Hungary	31.5
Netherlands	11.7	Italy	1.3	Poland	28.1
		Portugal	5.7	Slovenia	27.6
		Spain	3.9	Slovakia	44.9
<i>mean</i>	<i>10.8</i>	<i>mean</i>	<i>7.3</i>	<i>mean</i>	<i>33</i>

Note: productivity growth is real GDP per FTE employee  
Source: AMECO

The variation of the share of FDI liabilities over total liabilities shows a sharp contrast for most of the countries between the East and the South. All Eastern countries except Slovenia is experienced a strong increase in FDI inflows relative to other capital inflows. In the South all countries experienced a decline of FDI in capital inflows, which was particularly pronounced in Ireland. Only in Italy the FDI weight grew moderately (+2.7 %). The dynamics within the North are quite heterogeneous. In Austria, the share of FDI grew rapidly which probably reflect a limited opening to portfolio investment while in Germany it diminishes moderately and in Netherlands it stayed stable.

North		South		East	
Austria	14.8	Greece	-4.9	Czech Republic	8.2
Germany	-2.4	Ireland	-13.7	Hungary	19.6
Netherlands	0.2	Italy	2.7	Poland	10.8
		Portugal	-1	Slovenia	-2.8
		Spain	-1.4	Slovakia	22.1
<i>mean</i>	<i>4</i>	<i>mean</i>	<i>-3.7</i>	<i>mean</i>	<i>11.6</i>

Source: Lane, Milesi & Ferretti (2007)

The northern countries consolidated their industrial position. They experienced a rise in productivity, paired with a very small decline in industrialisation and a rise in FDI received. Interestingly they also experienced at the same time a reinforcement of their position of FDI net exporter and higher current accounts surpluses. In contrast, the current account position of both East and South deteriorated over the same period. However, the underlying dynamic is very different in each group. Productivity in the East rose strongly, while de-industrialisation was moderate and FDI experienced a very high increase in terms of GDP as well as in terms of stock of capital liabilities, contributing to the modernisation of the productive apparatus. Southern countries had lower increases in productivity, and a stronger de-industrialisation. Their FDI performance was also weaker in terms of GDP share and even deteriorates in terms total liabilities.

### 5.3. Working class restructuring

Table 6 provides an overview about the different developments of intra-working class relations across Europe. Northern countries experienced only low growth in real wages of 5.8% over the observed decade, with an increase of just 2% in Germany. Southern countries on average experienced a slightly stronger increase in real wages at 7.6%, although the respective countries' individual development was more heterogeneous, with Greece's and Ireland's real wage growth around 16% and 17% being well above average. Eastern countries had the biggest rise in real wages by far, amounting to 30% on average. Poland, the country with the lowest increase in this group, had an increase of 13%. Regarding nominal wage growth, the differences across country groups are more pronounced, with a growth of 23%, 37% and 70% for North, South and East respectively. Wage dispersion is measured by the variation coefficient of sectoral wages. It is computed as the standard deviation of labour costs per employee of all sectors,<sup>6</sup> divided by the labour costs per employee of the total economy. An increase in the wage dispersion thus represents an increase in income inequality. Northern wage incomes clearly show the highest increase in inequality, with an increase of 6.9%, while the increase in inequality was much less in the south, where wage dispersion increased by 2.1%. The East experienced an increase of 4.8%. We use the ratio of social expenditures to GDP as a proxy for the welfare state. This ratio is practically stable (+0.2%-pts.) in the north. Southern countries experienced an expansion of the welfare state with an increase of 3.9%-pts, while in the East, social expenditures did shrink relative to GDP (-1%-pt). Union density declines in the North by 5.7%-pts, by 2.7%-pts. in the South and by 9.46%-pts in the East.

	North	South	East
Real wages (Full time equivalent), growth	5.8%	7.6%	29.8%
Nominal wages, growth	23%	37%	70%
Δ Wage dispersion	6.9%	2.1%	4.8%
Δ Social expenditures (in % of GDP)	0.2	3.9	-1.0
Δ Union density	-5.7	-2.7	-9.5

Notes: real wages: no data for SLV; wage dispersion: no data for NLD, POL, HUN, PRT; union density: SLV 2001-08; Wage dispersion is measured by the variation coefficient of sectoral wages  
Source: OECD

Table 7 presents results for wage dispersion by country. Unfortunately data availability is very uneven. Only Austria, Germany, Greece, Ireland, Italy, Spain, the Czech Republic, Slovenia and Slovakia have data for the full 2000-08 period. Only these countries are included in the calculation of the mean for country groups. The South has had a mixed experience with decreases in wage dispersion in Spain and Italy, but increases in Greece, Ireland and Portugal. In the North and East all countries apart from the Netherlands experienced increases, with Slovakia, Czech Republic, Austria

<sup>6</sup> The sectors used are listed in Table A.15 in the Appendix



and Germany showing particularly high values. The experience in the East and North seems similar and distinct from the South.

North		South		East	
Austria	8.7	Greece	5.2	Czech Republic	4.3
Germany	4.8	Ireland	4	Hungary (2000-06)	2.6
Netherlands (2001-08)	-0.04	Italy	-0.7	Poland (2000-07)	2.1
		Portugal (2000-04)	5.2	Slovenia	2.4
		Spain	-0.3	Slovakia	7.8
<i>Mean (2000-08)</i>	<i>6.9</i>	<i>mean(2000-08)</i>	<i>2.1</i>	<i>mean(2000-08)</i>	<i>4.8</i>

Notes: Wage dispersion is measured by the variation coefficient of sectoral wages; mean includes only those countries where data is available for the full period (North: AUT, GER; South: GRC, IRE, ITA, ESP; East: CZR, SLV, SLK)  
Sources: OECD

Table 8 gives the changes in social expenditures as % of GDP by country. Germany experienced a decline of the social expenditures (relative to GDP) by 1.6%-pts, whereas Austria had a marginal increase (+0.1%-pt). The Netherlands, again, are an outlier within the group of the North, with social expenditures increasing by 2.1%-pts. All countries of the East, except for Hungary, experienced declines of the social expenditures relative to GDP. These declines range from -0.8 in the Czech Republic to -3.4%-pts in Slovakia. Hungary had a substantial increase of 3.4%-pts. In the South we consistently see substantial increases. Ireland stands out with an increase of 8.3%-pts. The other countries are in the range between 2.1%-pts (Spain) to 3.4%-pts (Portugal). With the exception of Hungary, the countries thus do fit our country groupings quite well.

North		South		East	
Austria	0.1	Greece	2.8	Czech Republic	-0.8
Germany	-1.6	Ireland	8.3	Hungary	2.9
Netherlands	2.1	Italy	3.1	Poland	-1.1
		Portugal	3.4	Slovenia	-2.8
		Spain	2.1	Slovakia	-3.4
<i>Mean</i>	<i>0.2</i>	<i>mean</i>	<i>3.9</i>	<i>mean</i>	<i>-1.0</i>

Social protection is measured by expenditures on social protection as % of GDP.  
Source: OECD

Overall, the North shows a picture of working class retreat with a low increase in wages and a strong increase in wage inequality and a pronounced decline in union density, while the welfare state has remained stable in size. In the South labour experienced a moderately higher increase in wages, but this was more evenly spread among the working class with wage dispersion almost stable. At the same time there is consolidation of the welfare state and it has the most moderate decline in union density. Eastern countries show an uneven picture. They experienced a very high increase in wages, while at the same time having the strongest increase in wage income inequality, a sharp decline in union density and a shrinking size of the welfare state.

## 6. Discussion

This paper put forward the hypothesis that already during the boom preceding the Euro crisis there has been a divergence in working class experiences across Europe. We suggest grouping European countries into groups of the North, the South and the East and find that countries had different experiences in terms of their growth driver, in terms of the degree of financialisation they experienced and how their working classes fared.

The northern growth model starts from a high level of development. It developed an export orientation and, with the exception of the Netherlands, relatively weak dynamics of financialisation. It maintained its industrial sector and experienced solid productivity growth. With the exception of the Netherlands the increase in household debt and in property prices was low. While real wages grew moderately, wage dispersion grew substantially and union density declined. This is a case of a *retreat of labour* (in Germany more so than in other Northern countries).

The southern countries experienced a strong wave of financialisation with sharply increasing levels of household debt and a property price boom. This resulted in moderately high levels of growth, but at the same time an accelerated de-industrialisation. Real wage growth was moderate and wage dispersion was comparatively stable. Union density declined, but substantially less than in other country groups and the size of the welfare state increased relative to GDP. The financial bubble was used to generate improvements for the working classes that went beyond better access to credit. We call this a *social compromise backed by a financialisation*. It is instructive to contrast this with the experience of the Anglo-Saxon countries. In the latter there was a much more pronounced increase in wage inequality and a weaker real wage growth. There was also more welfare state retrenchment. We would refer to the Anglo-Saxon constellation as *hegemony by financialisation* as it does not contain genuine working class improvement.

The Eastern countries experienced a strong industrial upgrading and a medium wave of financialisation. This had contradictory effects on the working classes: while real wages grew much faster than in other countries, it also experienced an increase in wage dispersion and it suffered a decline in welfare expenditures and sharp decline in union density. We call this disintegration of the working class coherence *hegemony by catching up*. High productivity gains allowed rising living standards while most other indicators of working class conditions deteriorated sharply.

We think that our country groups do capture important differences in the dynamics across countries. For most indicators the variation across groups is larger than within groups. In this sense our groups

are useful. However, there is a substantial amount of variation across countries that cannot be easily reduced to our groupings. For example, Germany is an extreme case of what we refer to as northern model, whereas the Netherlands has some characteristics hegemony by finance model, in particular a strong increase in household debt and slightly expanding social expenditures.

Our main finding is that the divergence of working class experience across European countries is not merely a result of the different economic performance during the Euro crisis, but pre-dates it. Indeed the decade from the introduction of the Euro to the crisis affected working classes in quite different ways: while there was an erosion of working class cohesion in the northern countries, the boom in the southern countries also allowed for a consolidation of the welfare state and came with relatively little increase in wage dispersion. The East experienced an erosion of working class cohesion (decline in union density, increase in wage differentials) while at the same time experiencing a strong increase in real wages. Working classes in these three country groups also have different degrees of financialisation.

## 7. Conclusion

Neoliberalism has meant quite different things for workers in different countries. This may explain why the labour movement has as of yet been unable to put forward a coherent European progressive strategy. The aim of the paper has been to establish that this divergent experience of working classes across Europe pre-dates the crisis and is closely linked with the different growth models. We have identified three such growth models and provided an empirical analysis of selected countries along three dimensions, financialisation, industrial upgrading and working class coherence. The average for these country groups clearly differ along the lines of the different accumulation paths that motivate this study. However, there is also some variation within the groups and there are some countries that do not fit neatly. This raises several questions for future research. First, in terms of the foundations of the analysis, one could investigate which dimensions have been key for the overall dynamics. Our analysis has presupposed that financialisation was the key force in the South, dependent upgrading was in the East and working class restructuring in the North. That is a hypothesis that should be empirically operationalised and evaluated. Second, still talking about theory, our analysis is based on the premise that these three growth models are complementary. The precise meaning of this complementarity needs further clarification. What are the constraints on national models imposed by the complementarity with other models? To what extent are countries forced into a model based on their position in the international division of labour? What were the main drivers of change in the international system? Did proletarianisation in the East initiate some changes leading to a restructuring of the other labour and growth regimes? Or is it the dislocation of working-class coherence in the North or the financialised compromise in the South that came first? Third, there are several countries excluded from our analysis. Some of these, e.g. the USA and the UK, could probably be included by way of extension. Others, like France, may require revisions of the scheme. Fourth, there are countries that do are outliers among their groups, at least on some dimension, most notably the Netherlands. This poses the questions on how valid our country groupings are.

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## Appendix. Country experiences

North		South		East	
Austria	17.7	Greece	50.0	Czech Republic	3.3
Germany	-10.8	Ireland	117.0	Hungary	37.3
Netherlands	59	Italy	29.2	Poland	23.1
		Portugal	47.4	Slovenia	
		Spain	105.1	Slovakia	-6.1
<i>mean</i>	<i>21.9</i>	<i>mean</i>	<i>69.8</i>	<i>mean</i>	<i>14.4</i>
<i>Sources: WDI</i>					

North		South		East	
Austria	0.2	Greece	1.1	Czech Republic	0.1
Germany	-0.1	Ireland	1.1	Hungary	1.2
Netherlands	0.4	Italy	0.4	Poland	0.9
		Portugal	0.4	Slovenia	
		Spain	1.1	Slovakia	-0.1
<i>mean</i>	<i>0.2</i>	<i>mean</i>	<i>0.8</i>	<i>mean</i>	<i>0.5</i>
no data for SLV					
<i>Sources: WDI</i>					

North		South		East	
Austria	-1.6	Greece	48.9	Czech Republic	66.8
Germany	-13.2	Ireland	49.3	Hungary	
Netherlands	21	Italy	33.1	Poland	
		Portugal	-8.8	Slovenia	
		Spain	85.9	Slovakia	
<i>mean</i>	<i>2.1</i>	<i>mean</i>	<i>41.7</i>	<i>mean</i>	
<i>Notes: no data for, HUN, POL, SLV, SVK, PRT</i>					
<i>Sources: Eurostat</i>					

North		South		East	
Austria	-6	Greece	-5	Czech Republic	64
Germany	73	Ireland	21	Hungary	50
Netherlands	-52	Italy	-18	Poland	62
		Portugal	-17	Slovenia	81
		Spain	20	Slovakia	75
<i>mean</i>	<i>5</i>	<i>mean</i>	<i>0.3</i>	<i>mean</i>	<i>66</i>

Sources: IMF (share prices), OECD (GDP deflator)

North		South		East	
Austria	7.6	Greece	-36.7	Czech Republic	-31.6
Germany	22.2	Ireland	-67.7	Hungary	-33.4
Netherlands	19.4	Italy	-16.9	Poland	-25.6
		Portugal	-55	Slovenia	-22.2
		Spain	-47.3	Slovakia	-41.1
<i>mean</i>	<i>16.4</i>	<i>mean</i>	<i>-44.72</i>	<i>mean</i>	<i>30.8</i>

Sources: WDI

North		South		East	
Austria	11.8	Greece	16.2	Czech Republic	33
Germany	8.8	Ireland	9.5	Hungary	31.5
Netherlands	11.7	Italy	1.3	Poland	28.1
		Portugal	5.7	Slovenia	27.6
		Spain	3.9	Slovakia	44.9
<i>mean</i>	<i>10.8</i>	<i>mean</i>	<i>7.3</i>	<i>mean</i>	<i>33.0</i>

productivity growth is real GDP per full time-equivalent (FTE) employee  
Sources: AMECO

North		South		East	
Austria	-0.1	Greece		Czech Republic	-2.2
Germany	-0.4	Ireland	-10.6	Hungary	-1.7
Netherlands	-1.8	Italy	-3	Poland	0.1
		Portugal	-3.3	Slovenia	-3.6
		Spain	-4.2	Slovakia	-1.6
<i>mean</i>	<i>-0.8</i>	<i>mean</i>	<i>-5.2</i>	<i>mean</i>	<i>-1.8</i>
no data for Greece					
Sources: OECD					

North		South		East	
Austria	21.9	Greece	1.1	Czech Republic	15.6
Germany	1.9	Ireland	-47.0	Hungary	5.8
Netherlands	15.3	Italy	4.9	Poland	12.4
		Portugal	14.8	Slovenia	34.2
		Spain	12.2	Slovakia	17.1
<i>mean</i>	<i>13.0</i>	<i>mean</i>	<i>-2.8</i>	<i>mean</i>	<i>17.0</i>
HUN, SLV, GRE 2001-08					
Source: OECD					

North		South		East	
Austria	-3.7	Greece	-4.9	Czech Republic	9.1
Germany	-7.6	Ireland	115.2	Hungary	-2.9
Netherlands	-11.9	Italy	-12.8	Poland	7.1
		Portugal	-7.1	Slovenia	1.8
		Spain	-8.8	Slovakia	30.5
<i>mean</i>	<i>-7.7</i>	<i>mean</i>	<i>19.2</i>	<i>mean</i>	<i>9.1</i>
Source: Lane, Milesi & Ferretti (2007)					



North		South		East	
Austria	14.1	Greece	-4.9	Czech Republic	8.2
Germany	-2.4	Ireland	-13.7	Hungary	19.6
Netherlands	0.2	Italy	2.7	Poland	10.8
		Portugal	-1	Slovenia	-2.8
		Spain	-1.4	Slovakia	22.1
<i>mean</i>	4	<i>mean</i>	-3.7	<i>mean</i>	11.6

Source: Lane, Milesi & Ferretti (2007)

North		South		East	
Austria	1.7	Greece	-8.5	Czech Republic	-4.3
Germany	3.8	Ireland	-2.1	Hungary	-7.4
Netherlands	5.6	Italy	-1.3	Poland	-3.4
		Portugal	-8.9	Slovenia	-1.7
		Spain	-5.8	Slovakia	-6.9
<i>mean</i>	3.7	<i>mean</i>	-5.3	<i>mean</i>	-4.7

Sources: OECD

North		South		East	
Austria	8%	Greece	15.7%	Czech Republic	39.6%
Germany	2.2%	Ireland	16.7%	Hungary	39%
Netherlands	7.3%	Italy	1.9%	Poland	12.7%
		Portugal	1.9%	Slovenia	
		Spain	1.7%	Slovakia	28.1%
<i>mean</i>	5.8%	<i>mean</i>	7.6%	<i>mean</i>	29.8%

No data for SLV

Sources: OECD

North		South		East	
Austria	26%	Greece	49%	Czech Republic	67%
Germany	15%	Ireland	51%	Hungary	114%
Netherlands	28%	Italy	25%	Poland	38%
		Portugal	28%	Slovenia	48%
		Spain	32%	Slovakia	84%
<i>mean</i>	23%	<i>mean</i>	37%	<i>mean</i>	70%
<i>Notes:</i> SLV 2002-2008					
<i>Sources:</i> OECD					

North		South		East	
Austria	-7.6	Greece	-2.5	Czech Republic	-9.8
Germany	-5.4	Ireland	-6.1	Hungary	-4.9
Netherlands	-4.1	Italy	-1.4	Poland	-2.1
		Portugal	-1.2	Slovenia	-15.5
		Spain	-2.1	Slovakia	-15.1
<i>mean</i>	-5.7	<i>mean</i>	-2.7	<i>mean</i>	-9.5
<i>Notes:</i> SLV 2001-08					
<i>Sources:</i> OECD					

**Table A.15. Economic Sectors for calculation of wage dispersion**

C01T02 Agriculture, hunting and forestry  
 C05 Fishing, fish hatcheries, fish farms and related services  
 C10T12 Mining and quarrying of energy producing materials  
 C13T14 Mining and quarrying except energy producing materials  
 C15T16 Food products, beverages and tobacco  
 C17T19 Textiles, textile products, leather and footwear  
 C20 Wood and products of wood and cork  
 C21T22 Pulp, paper, paper products, printing and publishing  
 C23T25 Chemical, rubber, plastics and fuel products  
 C26 Other non-metallic mineral products  
 C27T28 Basic metals and fabricated metal products  
 C29T33 Machinery and equipment  
 C34T35 Transport equipment  
 C36T37 Manufacturing n.e.c. and recycling  
 C40 Electricity, gas, steam and hot water supply  
 C41 Collection, purification and distribution of water  
 C45 CONSTRUCTION  
 C50T52 Wholesale and retail trade - repairs  
 C55 Hotels and restaurants  
 C60T63 Transport and storage  
 C64 Post and telecommunications  
 C65T67 Financial intermediation  
 C70T74 Real estate, renting and business activities  
 C75 Public admin. and defence - compulsory social security  
 C80 Education  
 C85 Health and social work  
 C90T93 Other community, social and personal services

Note: This table lists the sector used in the calculation of wage dispersion. Where one or more sub-sectors were missing, we use the next higher sectoral level instead. Thus the following changes were made: Ireland: C01T05 instead of C01 T02 and 05, C40T41 instead of C40 and 41, C60T64 instead of C60T63 and 64; Italy: C40T41 instead of C40 and 41.