



Project no. CIT1-CT-2004-506392

NEWGOV

New Modes of Governance

Integrated Project
Priority 7 – Citizens and Governance in the Knowledge-based Society

Paper on
“Coordinated wage adjustment in EMU: Is there a large-small divide?”
reference number: 19a/D4p

Due date of deliverable: August 2008
Actual submission date: 26 August 2008

Start date of project: 1 September 2004

Duration: 48 months

Organisation name of lead contractor for this deliverable:

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Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Summary

The large-small divide has been considered important for monetary integration ever since McKinnon (1963) postulated that small open economies would be better candidates for an optimum currency area. Recently, this distinction was claimed to be relevant for the very operation of a monetary union. Notably Buti and Pench (2004), two senior civil servants in DG Ecfm when they are not academic scholars, claim that small countries are more likely to comply with the obligations of membership, such as the fiscal rules. In this paper, we want to explore whether arguments in this tradition also hold for wage coordination or whether this is a spurious correlation that holds for a few member states at best. The alternative hypothesis is that we have to look at the interaction between monetary policy, fiscal policy and wage coordination to understand how political economies adjust to EMU. This interaction changes in predictable but ambiguous ways and differently for traditionally inflationary and traditionally stable countries, so only comparative cases studies for sub-groups of countries can tell us which effects dominate. We illustrate this with a case of traditional low inflation countries.

The paper was presented at the research workshop ‘The Labour Market and EMU’, Brussels 16 July 2008, see NEWGOV Deliverable 19a/D7.

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RESEARCH WORKSHOP ‘THE LABOUR MARKET AND EMU’
BRUSSELS 16 JULY 2008

Coordinated wage adjustment in EMU: Is there a large-small divide?

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Introduction

The large-small divide has been considered important for monetary integration ever since McKinnon (1963) postulated that small open economies would be better candidates for an optimum currency area. Recently, this distinction was claimed to be relevant for the very operation of a monetary union. Notably Buti and Pench (2004), two senior civil servants in DG Ecfm when they are not academic scholars, claim that small countries are more likely to comply with the obligations of membership, such as the fiscal rules. In this paper, we want to explore whether arguments in this tradition also hold for wage coordination or whether this is a spurious correlation that holds for a few member states at best. The alternative hypothesis is that we have to look at the interaction between monetary policy, fiscal policy and wage coordination to understand how political economies adjust to EMU. This interaction changes in predictable but ambiguous ways and differently for traditionally inflationary and traditionally stable countries, so only comparative cases studies for sub-groups of countries can tell us which effects dominate. We illustrate this with a case of traditional low inflation countries.

Our paper proceeds as follows: We will first outline the two main contending hypotheses. While the argument was not necessarily written in an EMU context, Carlin and Soskice (2006) and again Soskice (2007) used the distinction between large and small to explain why smaller countries have greater incentive to exert wage restraint for real employment and growth gains while large countries do not. The key argument is that wage restraint produces gains in aggregate demand by boosting exports while depressing domestic consumption. Since export shares are generally larger for smaller countries, the gains in external demand may not be cancelled out by the losses in consumption whereas in larger countries the opposite holds. The alternative hypothesis that we explore is that the interaction between monetary policy, fiscal policy and wage coordination has changed in complex ways, that is likely to make economies more pro-cyclical, independent of size.

Next we will give an overview for EMU-10 of what we consider to be changes in wage coordination that call for explanation.¹ We analyse the correlation between nominal wage growth as well as between nominal unit labour costs in three sectors to see whether we can detect a systematic pattern that is worth following up with more detailed comparative case studies: the sectors are manufacturing (a proxy for the unionised exposed sector),

* We would like to thank workshop participants for helpful suggestions and in particular Esther Perez-Ruiz (European Commission, DG Ecfm) for excellent, detailed comments she prepared at short notice. Our research has been supported by the European Union under the 6th Framework Programme (Contract No CIT1-CT-2004-506392) which is gratefully acknowledged. More information about the Integrated Project “New Modes of Governance” can be found on the project website at www.eu-newgov.org.

¹ Data on Greece is not reliable, Luxembourg is very small and Slovenia joined only recently.

non-market services (a proxy for the largely public, unionised sheltered sector) and personal services (a proxy for the largely private, non-unionised sheltered sector).² This parts provides suggestive evidence for a crucial element of both hypotheses that we explore, namely that after 1999 correlations between sectoral wages was significantly reduced in most member states but that wage bargains also did not simply return to their more or less bad old ways before the 1990s. So we conclude that there is indeed something to be explained and that our two competing hypotheses are both possible contenders for an explanation.

Our final step before we conclude is then to ask whether we can distinguish these two hypotheses by taking a closer look at a set of countries which contain large and small economies and which shared the basic orientation of their macroeconomic regimes before the onset of EMU. This allows us to isolate the relevance of the large-small distinction as well as to test the hypothesis that EMU meant different things to even fairly similar political economies in this respect. We trace the adjustment path of Austria, Germany and the Netherlands, three countries with a stability-oriented macro regime for which adjustment to EMU should have been minimal and predictable, yet contained some surprises. The conclusions contain our assessment and states, above all, open research questions that need to be answered before a firm verdict on our competing explanations can be given.

Why could a large-small divide explain the evolution of wage coordination in EMU?

In mature OECD economies, the labour market is part of the macroeconomic stabilisation regime, along with monetary and fiscal policy. In its simple etatist ('Anglo-Saxon') disguise, this contribution of the labour market to stabilising the price level and employment takes the form of a statutory minimum wage which thus provides a floor to downward wage pressures and a barrier to deflation. In its corporatist ('Nordic continental European') disguise, this contribution of the labour market results from collective agreements over wages and standard working time which then not only determine (sectoral) minimum wages but also the dynamic of wages and employment.

We are thus looking at the (de-)stabilising role of wage coordination in terms of smoothing or amplifying the business cycle, rather than as an adjustment mechanism to asymmetric shocks. The focus on shock absorption has traditionally been a preoccupation of the theory of optimum currency areas. It is also the more recent emphasis of the new classical real business cycle theory which interprets business cycles as equilibrating movements to a new equilibrium after a shock. However, neither has an economic role for wage coordination, in the neoclassical synthesis of Mundell's OCA theory real wages should simply be flexible or labour mobile. Similarly, in real business cycle theory, taking off from Robert Lucas' work on rational expectations, wage coordination is a source of instability rather than an instrument of adjustment. Our underlying theory is Keynesian in the sense that we assume that capitalist economies tend to generate

² In most EMU member states, each of these sectors has a sizeable employment share in 1992-2002. For manufacturing, this varies between over 25% for Italy and 15% for the Netherlands (with the majority of countries around 20%) and for non-market services between more than 30% in Belgium, Finland and France and a bit more than 20% for Portugal and Spain (with the majority of countries around 25%).

volatility, largely through the interplay of a (short-term) demand-creating effect of investment that feeds on itself, with a tendency for financial market bubbles, and a (medium-term) capacity-creating effect of investment, which may turn a boom into a fairly rapid bust. Stabilisation policy, including coordinated wage setting, is primarily an attempt at smoothing the volatility of capitalist economies. This is not to deny, on the contrary our very interest, that the attempt may sometimes aggravate volatility, due to policy lags or opportunism which both lead to pro-cyclical stimuli. In this interpretation, the difference between ‘shocks’ and cyclical instability is largely in the eye of the beholder but we assume that capitalist economies would not run smoothly along a steady state if left alone by policy intervention, as real business cycle theory does.

Our interest here is how variants of the corporatist coordination pattern has changed, presumably in response to EMU. We may restrict our analysis to the labour market and wage coordination if, in line with supply-side economics, it can be maintained that crucial parameters of the economic process are set here (real wages, aggregate employment). This is the New Keynesian hypothesis that a large-small divide counts for wage adjustment (Soskice 2007: 115-116). If the wage bargain does not have such a determining role, we may have to widen our analysis and take the labour market only in its interaction with commodity and financial markets into account, the latter both heavily influenced by fiscal and monetary policy (aggregate demand and the interest rate) – this is the hypothesis that the interaction counts (e.g. Allsopp and Vines 2000).

The European institutions, above all the ECB and DG Ecfm in the Commission, are adherents of a narrow labour market focus and a variant of the large-small divide in the form of closed/protected-open/competitive. They maintain that ‘a substantial part’ of inflation divergence in EMU is driven by ‘wage developments and wage-setting mechanisms’ (ECB 2005: 68). They keep on telling the wage bargainers that they must take their responsibility through moderate wage bargains. The very same institutions resist any form of political exchange or the upgrading of a venue like the Macroeconomic Dialogue, to assure social partners that their wage moderation will be rewarded with a less punitive interest rate policy or a supportive fiscal policy. On the contrary, at least the Single Market Programme and the Lisbon Agenda can be understood as institutionalised strategies to prevent fiscal policies from playing their traditional supportive role. This is not their declared intention but both challenge the protected sphere of public services (state aid rules, proportionality tests for the protection of social services) and push for a restructuring of tax and transfer systems so as to make them more ‘employment-friendly’, eg less progressive.

The ECB and the Commission have adopted the line that small (if corporatist) countries have proven to do very well in EMU while only the large ones had and have problems to adjust (Buti and Pench 2004: 1027-1030). In this world view, it is this inertia of large countries and their *non*-adjustment to EMU that is costly in terms of unemployment and low growth. A slight difficulty for this argument is that the role models of small, corporatist and well-performing economies, like Sweden and Denmark, are not in EMU. Another is that there are small EMU members, like Portugal, that had a very

disappointing performance and large EMU members, like Spain, that were doing unexpectedly well, at least until recently.

A more sophisticated argument that a large-small divide is relevant for the political economy of wage coordination has been formulated by Johnston and Hancké (2008) and Johnston and Rodriguez d'Acri (2008). They use it to explain why EMU has not led to the inflationary pressures that were implied or predicted, both by neoclassical economics (eg Calmfors and Driffill 1988) and by New Keynesian political economy (eg Soskice and Iversen 1998). We come back to this below but the argument can be summarised thus: In EMU, wage bargains have lost the German anchor. Wage coordination in exposed or export-oriented sectors is still constrained by the concern for competitiveness. But wage bargains in the less export-oriented, sheltered sectors are no longer constrained by the 'shadow of the Bundesbank', ie that the national central bank would sanction any bargain that threatens to drive inflation beyond levels compatible with the German reference rate, making the national economy uncompetitive. Agreements in sheltered sectors now depend on whether it is still to their advantage to comply with the competitiveness constraint or the exposed sector – or not. It is here that the large-small divide comes in. The authors maintain that it is more likely that in small economies the sheltered sector will be under greater pressure to comply with wage restraint from the exposed sector. There are two reasons for this. First, positive demand spillovers from exports will reach the domestic economy proper; and second, the proportion of the labour force employed in the sheltered sector tends to be lower in smaller economies.³ In large economies, even with a relevant export sector as in Germany, the contribution of net foreign demand to aggregate demand and employment is too low to stimulate the domestic economy. Thus, wage bargains in the sheltered sector tend to decouple and become less restrained.

This hypothesis of a large-small divide is in line with New Keynesian political economy. Soskice and Iversen (1998: 113) had warned that the outcomes of collective wage agreements will become more inflationary once the shadow of the Bundesbank has been replaced by the rather pale substitute from the ECB. But we may ask whether this hypothesis travels very far. It is plausible for some countries, notably those with pattern bargaining systems, such as Austria and Germany (Johnston and Rodriguez d'Acri 2008), or countries with wage laws, as Belgium for example, to have sheltered sector actors limited in their wage demands by the exposed sector. In a pattern bargaining system, a pilot contract in one sector sets the upper limit for wage increases in other collective agreements, possibly differentiated by sectors and regions. This pilot agreement therefore signals what aggregate nominal wage growth will be maximally. Depending on whether this pilot sector is export-oriented or not, wage demands of unions will be more or less attuned to considerations of international competitiveness. However, a number of EMU member states do not have wage bargain systems which alone, have

³ While there is no data detailing what percent of the labour force is in exposed versus sheltered firms by country, we can conclude, judging from their higher export shares, that smaller countries are likely to have a greater proportion of their labour force in firms which are exposed to international competitions versus those that produce for domestic consumption only.

the power to confine wage increases in the sheltered sector and Johnston and Rodriguez d'Acri (2008) claim that even Germany's pattern bargaining system unravels.

All explanations that concentrate on wage bargains to explain member states' inflation performance in EMU must assume a lot of steering power in collective agreements and predictable subsequent market processes. But these are strong assumptions that call for empirical scrutiny. First regarding the steering power of collective agreements: A collective agreement that ensures competitiveness, say, in the export-oriented manufacturing sector may not provide enough constraint for sectors with structurally low productivity growth, such as personal services. After all, staying within the nominal wage ceiling, set by the lead bargain, does not guarantee that nominal unit labour costs are not increasing too much, exerting price pressures or attracting import substitutes. They could also increase too little for keeping up the relative living standard of those employed in the sheltered sector, thus depressing demand and employment.

Second, as regards the market processes involved: The relevant indicator of international competitiveness, nominal unit labour costs (NULC) valued at the effective exchange rate, has many ingredients that are, to varying degrees, outside the control of wage bargainers and endogenous to the wage bargain. Even if we ignore the effective exchange rate (but see next section), firms may respond to a moderate agreement with hiring additional workers that depresses productivity; or to a generous wage increase with reluctance to hire, meeting buoyant demand by making their existing workforce work harder, thus increasing productivity in the aggregate. Which is to say that wage bargains can never directly contract over NULC. But it is NULC which determine the degree of non-inflationary wage increases or the effective 'wage restraint': the excess of nominal wage increases over productivity trend growth provides the inflationary potential. But whether this potential materialises depends on firms' response, in particular on whether demand allows them to pass on rising wage costs in prices, which may work for some sectors but for the economy as a whole depends on the stance of fiscal and monetary policy. If macroeconomic policies prevent this passing on of rising nominal wage costs in prices, firms experience a profit squeeze, indicated by NULC rising faster than inflation which mean that firms could not pass on rising wage costs into prices. Sooner or later, this will show up in layoffs or sluggish employment growth and possibly rising productivity (lower NULC) if demand does not decline in line with employment.

In sum, the claim that there is a meaningful large-small divide in the European political economy of wage adjustment implies two specific hypotheses: a) that wage coordination in EMU will tend to fall for large economies while it stays high for small economies; and b) that the contribution of coordinated wage bargains to inflation control ('adjustment') is likely to be or stay higher in small economies while in large economies the wage bargains in sheltered sectors tend to break off and become inflationary. The second hypothesis is conditional upon the first, although it is conceivable that the degree of wage coordination becomes less while the unionised sectors keep on making a contribution to inflation control, if in a less concerted manner than before. This will be explored in the next section.

Or was it the change in the interaction of wage coordination with monetary and fiscal policy?

While our paper concentrates on confirming or rejecting this two-fold hypothesis of a large-small divide in EMU wage coordination and adjustment, it is helpful to contrast it with an alternative hypothesis that explains why the divide may not apply. The large-small divide hypothesis looks at the wage bargain only in its interaction with monetary policy, in line with an entire literature that analysed optimal monetary policy in the presence of nominal rigidities (e.g. Rogoff 1985). This interaction is important because it should make a difference to the setting of wage bargains whether they took place under the direct observation of the national central bank (Germany) or in the shadow of it (Austria, the Netherlands). But it is not easily applicable to political economies where this shadow was effectively absent, either because wage agreements were to some (uncertain or negotiable) extent accommodated by the national central bank (e.g. Italy) or because capital flows were the overriding concern of the national central bank (e.g. Ireland).

Moreover, this change in the signalling game that EMU meant – if there was such a game before – is not the only one that affects the interaction between monetary policy and collective wage bargains. The pro-cyclical movement of real interest rates in a heterogeneous monetary union is another. The union-wide nominal interest rate translates into higher real interest rates in regional economies which are stagnating and thus have low price pressures, it translates into low and perhaps even negative real rates in those regions where economic activity is buoyant and price pressures correspondingly high. Households notice this effect in the guise of housing slumps and booms, and this can subdue or fuel collective wage demands.

If we take both effects into account, ie losing the direct or remote shadow of a stability-oriented monetary stance and the pro-cyclical movement of real interest rates, we realise that they tend to offset each other: While the first amounts to losing a constraint, perhaps more important for the sheltered than the exposed sectors, the second will depress activity in regions with price stability and thus constrain wage bargains there even more, which is again more important for the sheltered sectors because they depend by definition more on regional demand. Thus, only empirical research can tell us which effect dominates.

The approach underlying our project on ‘New approaches to economic governance’ suggests to look also at the change in fiscal policy. Fiscal policies may have changed in their relationship with wage bargainers not only because of budgetary surveillance in the monetary union but also because of the economic union, that is the Single Market with its huge implications for public services and state aid. EMU has narrowed down the room for political exchanges, ie the government providing for relatively generous employment-related benefits, such as pensions or earnings-related unemployment insurance, in return for wage moderation. Governments have become more constrained in using the public sector for labour market policy as the principle of non-discrimination in the internal market and budgetary constraints under the Pact challenge the provision of a ‘safe sector’ for employment (Rodrik 1998). In fact, many governments have outsourced and privatised traditional public services, such as utilities but also social welfare provision, in

line with the Cardiff process, thus actively reducing the safe sector. The effect of these structural reforms on the interaction between fiscal policy and collective wage bargains are hard to predict. In general, these are employer-friendly reform policies and weaken the bargaining position of trade unions, particularly in the public sector. Yet, it is anybody's guess whether this weakening beats trade unions into submission, as the logic of 'back against the wall' (Rodrik 1996, Buti and Pench 2004) suggests, or whether unions become more assertive over time as a dwindling membership makes them less encompassing, as the logic of collective action predicts (Olson 1982). Theory can only give us the reasons why we have to take fiscal policy into account if we want to understand why wage coordination has changed. But we have to study concrete country cases to identify the direction of the change.

There are other changes that a full-fledged analysis would have to consider: In EMU, exchange rate movements as a source of uncertainty for wage bargains has been eliminated vis-à-vis the main trading partners.⁴ The implications are different for member states with traditionally high inflation rates relative to Germany, such as Italy, and for member states that tried to maintain a stable exchange rate with Germany and thus had to accept the inflation constraint, such as Austria. It meant in particular that German wage bargainers had no longer to fear that moderation would fail to pay off in terms of competitiveness because the DM would appreciate in response. Thus, so far stability-oriented wage bargainers get rid of a constraint while so far inflationary wage bargainers become more constrained as they can no longer rely on exchange rate depreciation. Another implication of a monetary union with many trading partners is that current account balances are no longer a major concern for the financial stability of a country. Persistent high current account deficits may lead to deindustrialisation and depressed domestic employment conditions, but the threat of financial capital flight and illiquidity of the central bank in terms of foreign exchange is seriously diminished. This alleviates an immediate constraint for inflationary wage bargainers. It also reduces an incentive for stability-oriented wage bargainers although they are likely to be more stability-oriented out of concern for competitiveness, rather than financial stability – to the extent that this is true, not much would change for wage bargains in traditional low inflation members.

The upshot of these considerations is that the various changes in the interaction of monetary and fiscal policy with wage coordination entail contradictory changes in terms of incentives for wage bargainers. The results will therefore depend on very specific configurations that theory cannot predict. Aggregate data will only help us to identify interesting country groups that control for important determinants of different behaviour. For instance, we may explore traditional low inflation countries that narrows down the range of change we have to analyse, in this case because the elimination of some external monetary constraints is not relevant. In section 3, we sketch a comparative case study of Austria, Germany and the Netherlands along these lines.

⁴ This uncertainty has been effectively reduced by currency unification. But if wage bargains would become highly coordinated across EMU, moderate agreements may be 'rewarded' by financial markets with an appreciation of the Euro exchange rate, thus wiping out any potential gain in competitiveness; and vice versa in the case of what financial markets perceive as an inflationary agreement.

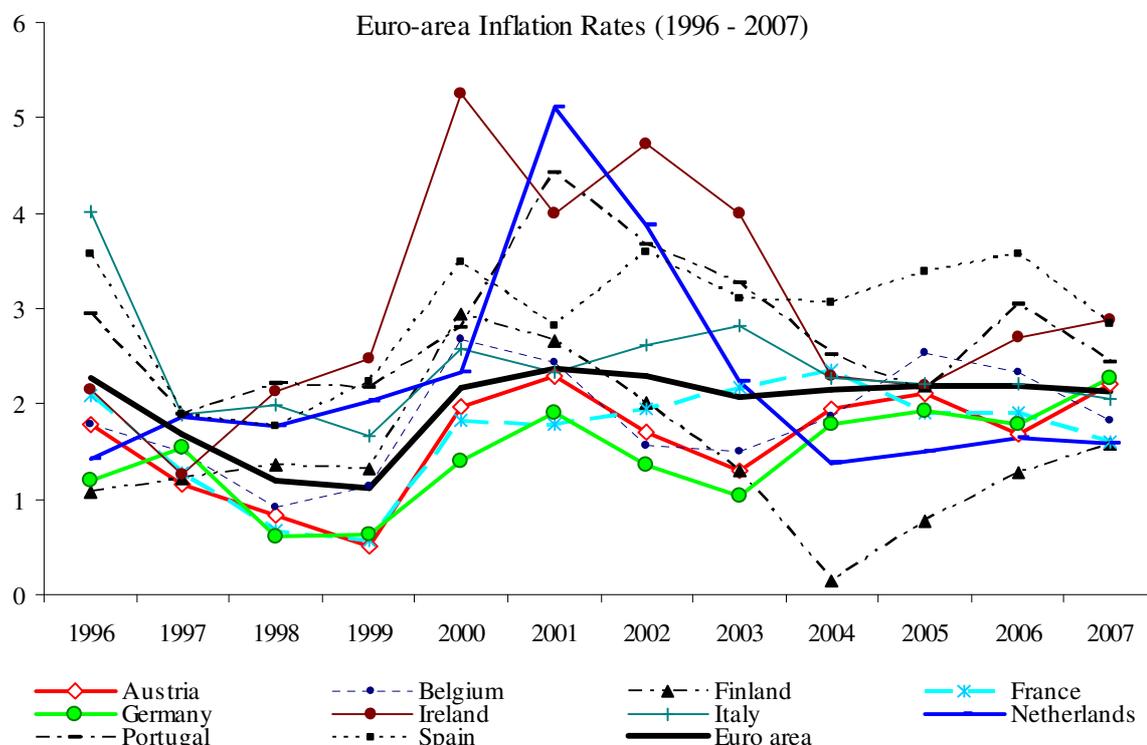
What has changed in wage coordination before and after the onset of EMU?

We proceed in this section to test the null hypothesis which this paper set out to explore: that small countries, under EMU, are better able to utilize their *de facto* nominal wage coordination to produce aggregate wage restraint which ultimately contributes to “inflation control”, than larger countries are. Does size indeed affect the ability or incentive of a country to successfully adjust to EMU’s institutional framework? We examine this two-fold hypothesis in three steps; first we separate high and low inflation countries based upon their inflation performance related to the EMU average, keeping size-notions in mind. We then test whether aggregate wage restraint in the 10 EMU candidate countries under analysis contributes to low versus high inflation rates⁵, and for those where wage restraint contributed to low inflation, whether wage coordination increased or remained the same under EMU. Our final results reject our hypothesis as we find that good and bad inflation performers can be, within the EMU institutional framework, both large or small, thus laying the path for alternative explanations of this heterogeneity to come to the fore.

We first map out EMU-countries’ inflation rates against each other and the Euro-average. What we find is surprisingly little inflation convergence has taken place since EMU. The initial inflation convergence which followed EMU’s onset indicates that some adjustment to nominal conversion rates has taken place, which may, on the other hand, disguise a potential decline in wage coordination.

⁵ We define low inflation countries as those whose inflation rates are below the Euroarea average (between 1999 and 2007). High inflation countries are those whose inflation exceeds the Euroarea average.

Graph 1:
Euro Area Inflation Rates



Source: OECD.stat, July 2008

It appears that inflation rates do not set small countries apart from larger ones in terms of their ability to control inflation. Austria, Belgium and Finland are low inflation economies; Ireland, Portugal and the Netherlands though cannot be described as such. The same inconsistent pattern emerges from analysing larger states: France and Germany portray low inflation rates, Italy and Spain do not.

While the descriptive statistics do not suggest that there is a large-small country divide, it may still be the case that small countries with low inflation can better utilize wage restraint to keep inflation under control in EMU. To explore this possibility, we examine cross-correlations in nominal wage growth between the exposed sector (proxied as the manufacturing – ISIC tabulation category D) and the (unionised) sheltered sector (proxied as the non-market services sector which is a composite of public administration and defence, health and social work and public services, by and large falling under the realm of the public sector in most countries, though in different degrees – ISIC tabulation category L, M and N) along with aggregate wage restraint's contribution to the inflation rate. Though unionization should not be misinterpreted as coordination – which is ultimately the variable of interest – it can be a good indicator of sectoral union power, and will enable us to determine how coordinated unions, with equal power, behave in the face of employers. Additionally, high unionisation rates suggest that institutions of collective representation (on the employee side) are in place; the existence of such

institutions is a prerequisite for collective bargaining – of any kind. Sectors where unionization rates are relatively low may on the other hand be quite unable to shadow wage developments in leading union sectors as employers may not allow it – however, if coverage is high, wage shadowing can be possible in un-unionized industries. However, this is not to say the sectoral unions will always coordinate themselves, especially when their incentives and competitiveness constraints are not aligned. Although trade unions care about real wages, and employers' main concern is keeping nominal unit labour costs in line, the bargaining process manipulates neither, rather it contracts nominal wage increases only.

We do not, however, explore any link between dynamic market services and the exposed sector, such as transport, post and telecommunications, business services and financial services. Our reasons for doing so are two fold. The first reason relates to the volume of dynamic market services which are traded, compared to that of manufactured goods. Dynamic market services still have a generally low level of exposure compared to manufacturing goods in international markets. Unlike manufacturing, where trade legislation and the removal of trade barriers has progressed since the 1950s, barriers to market services have only started to be liberalized more recently, and only for a limited number of market services sector; the lack of harmonized standards continues to make trade difficult. The extent of manufacturing's traded value relative to services is depicted in table 1 and 2. In the 1980s, for 14 OECD economies, around 45% of manufacturing was traded as opposed to only 4 % of services (De Gregorio et al, 1994). Moreover, when measuring the share of openness in the overall production since 1990 by sector for France, Allard-Prigent et al (2000), note that most dynamic services (insurance services, market services, transport and telecommunication services) have openness shares smaller than 15%, only one portraying an openness share greater than 20% (services of financial institutions – 21.8%); most producer and intermediate goods instead had openness shares of over 100%, and consumer durable goods of over 150%. Given the low openness shares of dynamic market services accounted by these empirical studies, it is uncertain to what extent the competitiveness constraint applies to unions in these sectors, compared to those in the manufacturing sector. Thus, we are unsure how different wage behaviour would result for dynamic services workers, relative to the even more sheltered sectors of personal and non-market services. If anything, different skill levels is more likely to affect wage behaviour rather than differences in international exposure.

The second reason why we do not investigate this link is due to the low employment shares of these industries. If we defined services as exposed if 20% of its value added is traded (keeping in mind, manufacturing's tradable share is over 5 times this value), only one of these market services sectors, services of financial institutions, would be considered "tradable"⁶. However financial intermediation services has an average employment share, across the Eurozone, of 3%, compared to 26% in the non-market services sector and 20% in the manufacturing sector. Thus, while it would be interesting to examine how these actors responded to wage setters in larger exposed sectors, it is

⁶ Only if this threshold is lower to 10% (less than a tenth of most manufacturing's computed shares) of value added being tradable would post and telecom, market services, and insurance services be classified as "tradable".

unlikely, given their small representation (and unlikeness of being unionized and therefore shadowing wage decisions made by unions in other industries), that their wage decisions would prove influential over a wider national framework or would even follow wage developments in other sectors.

Table 1: Trade Intensity of Manufacturing and Services for 14 OECD Economies

“Tradedness” (export share in total production)						
	1970	1975	1980	1985	Mean	T/NT
Agriculture	17.3	24.3	28.1	24.7	23.6	T
Mining	29.6	36.9	27.9	31.4	31.5	T
Manufacturing	32.5	47.1	53.1	48.3	45.2	
Metal manufacturing	42.6	64.5	69.2	63.4	59.9	T
Chemicals	35.6	56.3	71.8	62.6	56.6	T
Basic metals	37.4	49.2	50.7	45	45.6	T
Textiles	31.7	42.4	42.5	41.3	39.5	T
Other manufactures	28.1	30.6	39.8	35.8	33.6	T
Paper & products	20.9	26.7	30.2	20.7	24.6	T
Food, bev., tobacco	16.7	24.1	29.9	25.5	24	T
Non-metallic minerals	10.3	12.7	16.4	15.4	13.7	T
Services	3.5	4.4	4.9	4.5	4.3	
Transportation	22.9	28	31.5	28.8	27.8	T
Other services	1.3	1.9	2.2	2.1	1.9	NT

Source: De Gregorio et al. (1994)

Table 2: Trade Share by Sector: France (tradables and non-tradables)

Industry	average level of [(X+M)/2]/VA	Type of Industry according to the 10% criterion
	over the period 1990-1997 (in%)	
[U1] Agricultural, forestry and fishery products	34.5	T
[U2] Agricultural and food industries	81.2	T
[U3] Energy	57.1	T
[U4] Intermediate goods	115	T
[U5A] Producer durables	108.1	T
[U5B] Consumer durables	151.6	T
[U5C] Automotive vehicles and other land transport equipment	158.7	T
[U6] Consumer and non-durables	80	T
[U7] Products of building and construction, civil and rural engineering	0	N
[U8] Wholesale and retail trade	0	N
[U9] Transport and telecommunications services	12.3	T
[U10] Market services	7.4	N
[U12] Insurance services	7.4	N
[U13] Services of financial institutions	21.8	T
[U14] Non market services	0	N

Source: Allard-Prigent et al. (2000)

Cross-correlations describe the synchronicity of movements of nominal wage growth in manufacturing and non-market services. The higher the resulting value, the more attuned/parallel is wage bargaining between both sectors, and hence the higher coordination. We exclude Luxembourg due to its size, Greece due to the lack of reliable wage and productivity data, and Slovenia as its entry is too recent to conduct an EMU cross-correlation analysis for. Table 3 shows that four of the five low inflation countries previously identified exhibit a high cross-correlation in nominal wage growth between our exposed and sheltered unionised sectors. For two countries – Austria and Germany – correlation in wage growth cycles between sectors does not change much between ERM and EMU, and remains high, while for two others – Belgium and France – the correlation between sectors almost doubles in the EMU period. In Finland, we find that a significant decline takes place once in EMU. With respect to our high inflation countries (Ireland, Italy, Netherlands, Portugal and Spain), we find instead that three out of five cross correlations are low or declining; Italy and Portugal only report high wage cross-correlation rates between sectors, probably due to the dominant wage setting role played by their public sectors in the bargaining round.

Table 3: Cross-correlations in wage growth between the manufacturing and non-market services' sectors (3-year moving averages)

	1979-1989	Maastricht Period (1991 – 1998)	EMU Period (1999 – 2005)
<i>Austria</i>	0.78	0.82	0.86
<i>Belgium</i>	0.96	0.47	0.73
<i>Finland</i>	0.73	0.88	0.08
<i>France</i>	0.98	0.42	0.85
<i>Germany</i> ⁷	0.87	0.98	0.80
<i>Ireland</i>	0.55	0.80	-0.88
<i>Italy</i>	0.90	0.84	0.85
<i>Netherlands</i>	0.93	0.95	0.31
<i>Portugal</i>	0.80	0.98	0.95
<i>Spain</i>	0.93	0.93	0.62
AVERAGE	0.84	0.81	0.52

Source: Johnston and Hancké, 2008, based on EU_KLEMS 2007

What these findings suggest is that a high cross-correlation between a unionised exposed sector, constrained by a concern for competitiveness, and a unionised sheltered sector, which faces no such constraint, are supportive of a successful inflation adjustment path, and can be conducive to 'inflation control'. But to what extent? Can we determine which sector plays the dominant role in driving inflation rates below (or in line) with the Euro-area's one? Indeed, it is the difference between nominal wage rates and labour

⁷ 1979-1989 cross correlations is for West Germany data. Due to the absence of data before 1991 (because of reunification), cross correlation coefficients for the 1991-1998 period is based on 2 year moving averages for Germany.

productivity which feeds into an economy's inflationary potential. That is, it is nominal unit labour costs (NULC), rather than nominal wage growth in itself, which contributes to inflation. We thus further include in our analysis to this latter variable, whether NULC growth helps curb high inflation or whether it does not.

Table 4:
Cross-correlations in NULC between the manufacturing and non-market services' sectors
(3-year moving averages)

	1979-1989	Maastricht Period (1991 – 1998)	EMU Period (1999 – 2005)
<i>Austria</i>	0.71	0.91	-0.84
<i>Belgium</i>	0.35	0.85	0.06
<i>Finland</i>	0.83	0.91	-0.42
<i>France</i>	0.98	0.53	0.49
<i>Germany</i>	0.84	0.95	0.15
<i>Ireland</i>	0.85	0.15	-0.03
<i>Italy</i>	0.86	0.93	0.88
<i>Netherlands</i>	0.72	0.86	0.40
<i>Portugal</i>	0.58	0.99	0.90
<i>Spain</i>	0.74	0.97	0.63
AVERAGE	0.75	0.81	0.22

Source: Johnston and Hancké, 2008, based on EU_KLEMS 2007

What table 4 shows is that the higher on average cross-correlation results retrieved from the wage growth analysis do not replicate themselves when NULC, i.e. wage restraint, cross-correlations across sectors are analysed. We see instead a significant decline in these values, both in high and low inflation countries. The combination of these values, and the analysis of NULC curves by sector per each EMU-member state (in the appendix) suggests that for all low inflation economies (Austria, Belgium, France and Germany) the manufacturing sector has borne the brunt of controlling and bringing down inflation in such countries. For Germany a caveat must be made. Until 2005, low inflation has been promoted by both continuously decreasing NULC growth in the manufacturing as well as in the non-market services' sector. The durability of this dynamic though has been called into question by recent evidence on less conciliatory and concerted wage setting instances in a number of sheltered sectors (Johnston and Rodriguez d'Acra 2008). Our graphs (in the appendix) also suggest that in three out of the five high inflation countries (Ireland, Italy, Spain) it is only the competitiveness-restrained manufacturing sector which exhibits NULC growth rates below the Euro-area inflation.

Having outlined this data, we propose to assess the hypothesis of whether there is a large-small divide in EMU. The large-small hypothesis requires two conditions to hold in small, but not large countries. These conditions suggest that (1) wage coordination in

EMU will tend to remain the same or increase for small countries, whereas in large countries it should fall; and (2) that the contribution of coordinated wage bargains to inflation control (adjustment) is likely to be or stay higher in small economies, while in large economies wage bargains in sheltered sectors become inflationary. The reason is that for small countries, a greater proportion of the labour force is employed in the exposed sector, and hence have their wages constrained by a concern for competitiveness, so we would expect, *ceteris paribus*, greater wage restraint as the weight of the exposed sector relative to the sheltered sectors in *aggregate* NULC tends to be larger. If these two conditions both hold predominantly in small and not large countries, then there may be some indication that a large-small divide has emerged within the institutional conditions created by the EMU process.

We investigate both conditions for each EMU-10 country separately. We assess our first condition calling for equal or increased wage coordination by comparing the cross correlation coefficients for nominal wage growth cycles presented earlier. When this coefficient is unchanged or has increased over the ERM to EMU period, then we posit that the coordination among sectors has either increased or remained the same under EMU. In order to control for external influences, we compare sectors that are typically characterised by similar degrees of unionisation: the manufacturing and non-market services sector. We also look at personal services (which has a comparably lower union density and influence), but we assign more weight to the manufacturing/non-market services correlation, as the NMS sector is on more equal level in bargaining with manufacturing, as discussed for the reason above. We believe cross-correlation statistics are a better indication of wage coordination than all-encompassing coordination indices (see Visser, 2008 and Kenworthy 2003) as these indices only explain levels of coordination rather than the channels which they occur. As a result, countries with very different bargaining frameworks (pattern bargaining versus state sponsored coordination versus state imposed coordination) at similar levels may have identical index values but very different coordination mechanisms between sectors which lead to different wage and NULC cycles. Cross-correlation coefficients help us avoid this problem of over-generalization.

We test our second condition by analysing the contribution of nominal wage bargains to inflation control, and examine whether aggregate wage restraint is higher than or oscillates closely around the inflation rate for countries with inflation below the Euro Area average. For the sake of simplicity, if the country's inflation rate is consistently below the Euro Area average for the period (these countries are Austria, Belgium, Finland, France and Germany), and aggregate 'wage restraint' (wage growth minus labour productivity growth) is consistently lower, or oscillates tightly around the inflation rate, then we suggest that wage restraint for all sectors could contribute to inflation control. If our indicator for aggregate wage restraint is consistently higher than the inflation rate, then wage restraint does not contribute to inflation control. Finally, we will also assume that countries with inflation rates consistently higher than the Euro average will have little contribution from aggregate wage restraint to inflation control, but we still distinguish whether it lies consistently above, below or oscillates around the inflation rate.

The result of which these two tests is presented in table 5.

Table 5:
Summary of the results

Country	<i>Are nominal wage growth cycles similarly or more correlated under EMU? (By sector)</i>	<i>Is national inflation high/low relative to the EA average and how does NULC growth relate to national inflation?</i>	<i>Do both conditions hold for small countries/ fail to hold for large countries?</i>
Austria	Man and NMS: Same correlation levels under EMU Man and PS: Slightly less (drop by 0.1) but relatively similar	Low inflation and NULC consistently below inflation rate	YES
Belgium	Man and NMS: Correlation increases Man and PS: Correlation increases	Low inflation and NULC oscillates closely around the inflation rate	YES
Finland	Man and NMS: Correlation decreases Man and PS: Correlation decreases	Low inflation and NULC oscillates closely around the inflation rate	NO (condition 1 does not hold)
France	Man and NMS: Correlation increases Man and PS: Correlation increases	Low inflation and NULC oscillates closely around the inflation rate	NO (both conditions hold for this large country)
Germany	Man and NMS: Slightly less (drop by around 0.18) but correlation is still high (around 0.8) Man and PS: Slightly less (drop by around 0.2) but correlation is still high (around 0.8)	Low inflation and NULC consistently below inflation rate	NO (both conditions hold for this large country)
Ireland	Man and NMS: Correlation decreases Man and PS: Correlation decreases	High inflation and NULC oscillates around inflation rate	NO (conditions 1 and 2 do not hold)
Italy	Man and NMS: Correlation remains the same Man and PS: Correlation improves but is low and negative	High inflation and NULC consistently above inflation rate (profit squeeze)	NO (condition 1 does not hold for this large country)
Netherlands	Man and NMS: Correlation decreases Man and PS: Correlation remains about the same	High inflation and NULC consistently higher than inflation rate (profit squeeze)	NO (conditions 1 and 2 do not hold)
Portugal	Man and NMS: Correlation remains the same Man and PS: Correlation decreases slightly but remains high (around 0.85)	High inflation and NULC consistently higher than inflation rate (profit squeeze)	NO (condition 2 does not hold)
Spain	Man and NMS: Correlation decreases Man and PS: Correlation decreases	High inflation and NULC oscillates around inflation rate	YES (conditions 1 and 2 do not hold for this large country)

Source: Tables 3 and 4 and appendix.

From these results we conclude that the large small country divide does *not* appear to hold as only in two out of the six small countries (Austria and Belgium) increased coordination between the exposed and sheltered sectors seems to have occurred and low NULC growth to have contributed to low inflation rates. Two out of the four large countries (France and Germany) appear to follow similar trends as coordination between wage bargainers seems to remain stable or improves, and as a low NULC growth cycle has contributed to low and steady inflation rates. It thus appears that a country's ability to adjust to EMU's (monetary) institutional framework is a variable independent of size. The majority of small countries and two large countries, France and Germany, counter the hypothesis of a large-small divide.

In order to account for the diversity in inflation performance within EMU's institutional framework, Johnston and Hancké (2008) make the argument that a significant governance shift has occurred since the inception of EMU, prompting a heterogeneity in the incentives faced by wage bargainers in exposed and sheltered sectors. While OCA theory drew attention to mobile labour as an adjustment mechanism, one should not underestimate the formal governance structures which were placed upon wage setters via the ERM set-up, and the effect which the elimination of these structures had on wage setters' incentives (particularly of those in the sheltered sector). During the run-up to EMU, wage setters were constrained by national central banks' commitment to fulfil the nominal Maastricht criteria, and by governments' commitment to the fiscal Maastricht criteria – this latter constraint particularly affected public sector unions. With Germany as the monetary anchor of the ERM and the *de-facto* target of the Maastricht inflation criteria, German monetary policy effectively became imposed upon every EMU candidate country from 1992 onwards (Eichengreen 1994, Soskice and Iversen 1998)⁸. Examining cross-correlation coefficients on nominal unit labour cost cycles within countries for the 1991-1998 period, Johnston and Hancké (2008) find a high degree of (forced) synchronization at a national level before the introduction of the Euro. Eight out of ten countries boast coefficients in sectoral NULC higher than 0.8 (see Table 4). Maastricht's unique institutional set up, with German monetary policy at its centre and national central banks as the governance institutions which implemented German monetary policy upon EMU candidate countries, is perhaps the only institutional structure which facilitated this high degree of synchronization between wage setting actors at the national level and at the supranational level.

Under EMU, they argue, these cross correlations in wage restraint across sectors largely collapse (table 4). However, wage coordination, as measured by correlations of sectoral nominal wage growth, does not witness a similar drop across all countries: for 4 countries cross correlations in wage growth cycles remain the same for the two periods, for 2 countries they increase, and for 4 countries they decrease. Johnston and Hancké (2008) interpret this as evidence that different bargaining frameworks play a substantial role in keeping wage growth in the sheltered sectors in check. Those with wage setting institutions where wages in the sheltered sector are tied to the exposed sector (as in the pattern bargaining systems of Germany and Austria, or France's bargaining system of

⁸ For the core D Mark block - Austria, the Benelux countries, and France – the *de facto* adoption of German monetary policy had occurred much before this date.

“elite” firm coordination), or have a legal constraint which imposes a ceiling on aggregate wage growth (Belgium) perform better in terms of wage restraint (and ultimately inflation) under EMU than countries with bargaining systems where such constraints are not imposed.

However, there are a number of criticisms which have been made to this analysis: one points towards the fact that Johnston and Hancké (2008), following Hall and Franzese (1998) and Soskice and Iversen (1998), assume inflation to be influenced only by a signalling game between unions and the central bank but do not incorporate fiscal policy’s role in inflation control. The next section seeks to readdress the second critic by proposing a hypothesis that examines whether and, if so, how wage coordination, monetary policy and fiscal policy has influenced three countries with relatively similar inflation records: Austria, Germany and the Netherlands. This explanation shares with Johnston and Hancké (2008) that it is the change in economic governance that may explain the divergence in their performance once EMU started.

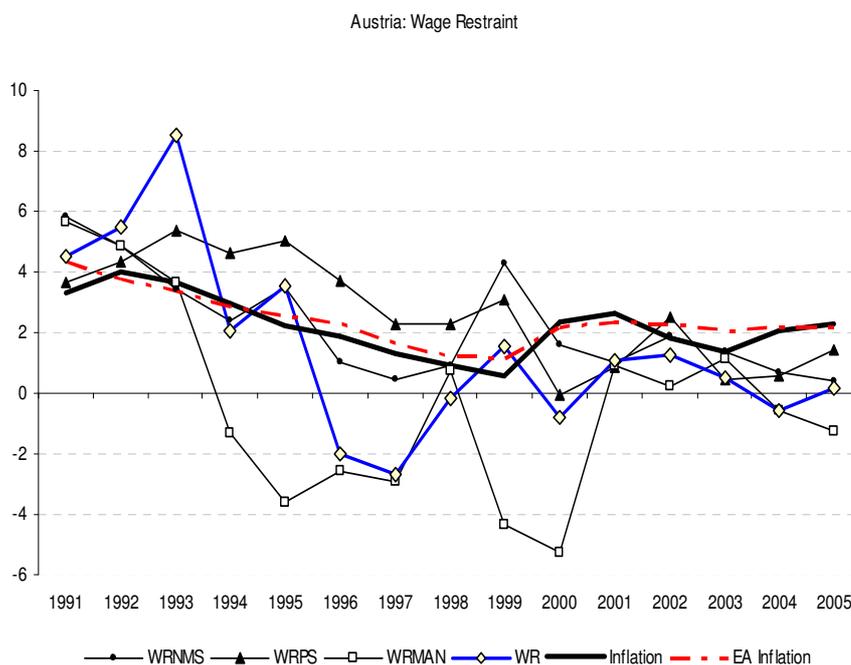
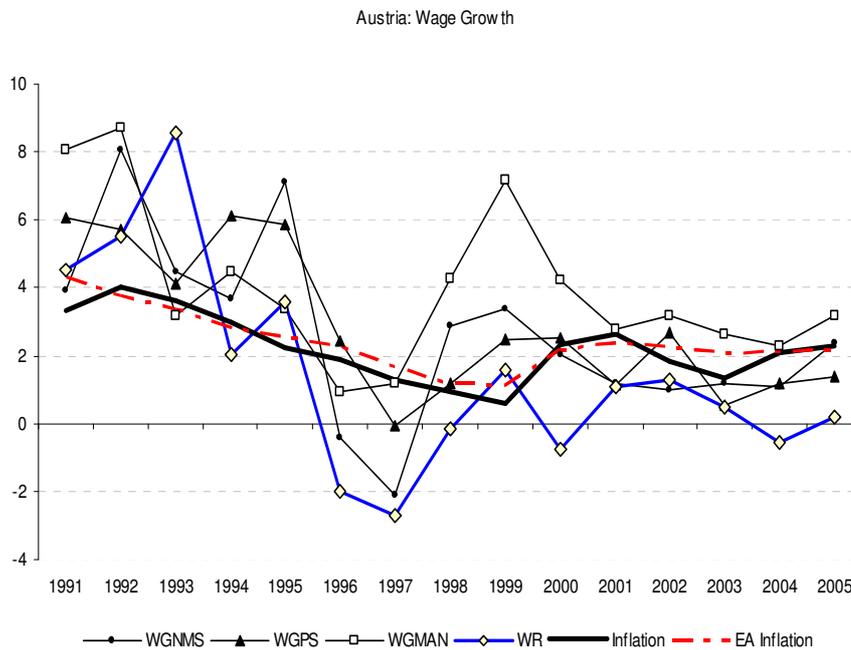
Why so different? A comparative cases study of Austria, Germany and the Netherlands

The large-small divide in coordinated wage adjustment is not confirmed by our admittedly rough and preliminary analysis. So we turn to the other hypothesis and ask whether we can see any pattern there. This is not a simple task because of the contradictory effects that the reconfiguration of the macroeconomic triangle has *ex ante*. Thus, for the alternative hypothesis, that it was the interaction with monetary and fiscal policy (and the role of external monetary constraints) that determined the outcome of coordinated wage adjustments, we have to narrow down the possible pathways. Fortunately, Austria, the Netherlands and Germany form such a group of countries that are traditional low inflation countries, with a high degree of wage coordination until the late 1990s. The Austrian and the Dutch wage bargainers as well as their central banks shadowed German wage and inflation rates very closely. This choice of countries controls for the effect of changes in the external constraints (exchange rate revaluation in response to wage moderation, threat of current account crises) which have been similar for all three so that we can concentrate on the changes in the interaction with monetary and fiscal policy.

Their performance in the early years, in particular their adjustment in the sense of keeping low inflation, was very different (cf. Graph 1): Austria’s inflation rate stayed very close to the Euro area average, with minor deviations upwards but mostly staying close or below; Germany’s inflation rate stayed continuously below the Euro area average by about 0.5 percent; while Dutch inflation overshot the Euro area average considerably between 1998 and 2003, only to become lower than German inflation in 2004-2006. Austria did best in terms of constant economic growth while Germany had rather depressed economic activity until 2006 and the Netherlands had buoyant growth until 1999, which turned into stagflation and rising unemployment (from full employment in 2001) until 2003 and growth resumed only by mid-century.

How did this inflation performance look in terms of wage rates? We look at nominal wage growth (WG) for the degree of coordination and at the NULC for effective wage restraint (WR) in the three sectors (manufacturing = MAN for the exposed unionised sector, non-market services = NMS for the sheltered unionised sector, personal services = PS for the sheltered non-unionised sector) and plot them against both domestic and Euro area inflation as well as average NULC.

Graph 2a: Austria



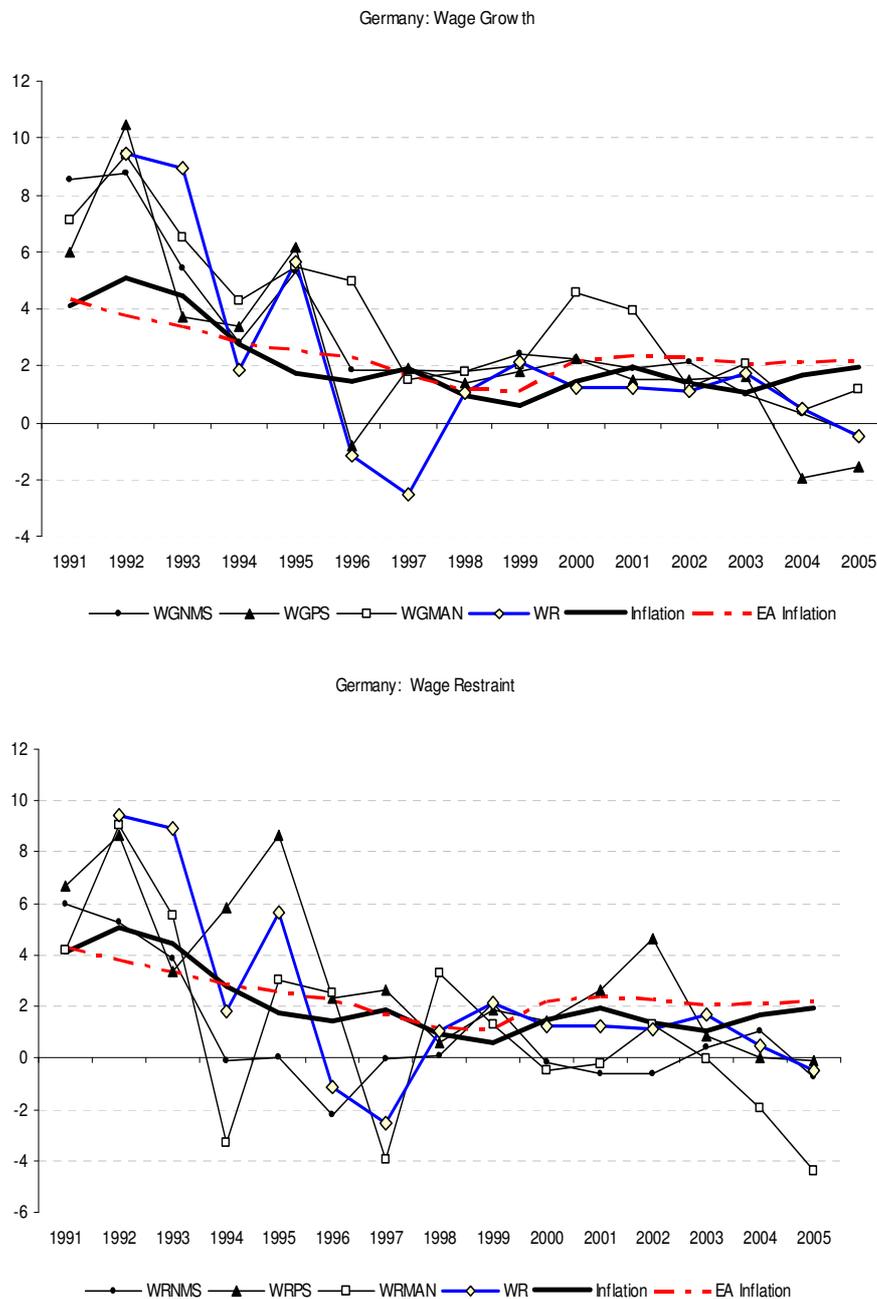
Source: AMECO, EU_KLEMS, and OECD.stat 2007

Looking at the sectoral growth rates in nominal wages, visualizing the degree of wage coordination, we see that there was maximum divergence at the onset of EMU and strong convergence afterwards. The reduction in volatility of wage settlements after 2000 is quite noticeable and suggests a predictable economic environment that generated more

predictability from wage settlements in return. In terms of ‘adjustment’ or inflation control through unit labour costs, we can see that it was not so much a coordinated effort than productivity growth in manufacturing which kept the average increase in NULC low. However, all sectors (with a brief exception of personal services/ the non-unionised sheltered sector in 2002) seem to have been restrained in the sense of staying close or below a domestic inflation rate that is very much in line with the EA inflation rate. This means we saw redistribution towards profits throughout the early years of EMU, real wages rising considerably less than productivity.

The contrast with Germany is revealing. The movement of sectoral nominal wages shows spells of divergence and seem to be less close and more volatile than in Austria despite even lower inflation. This can be interpreted as a sign of the transitional state of the German economy and wage settlements generally in those years, perturbed by the worsening performance of the economy and much more heterogeneity of conditions in the East, West and South of the country than there used to be. Further evidence for this can be read off the movement, or adjustment, of the sectoral NULC. Since 1995, we see a close shadowing and underbidding of Euro area inflation rate but until 2000 not consistently ensured by lower overall NULC. After that the effective wage restraint of the unionised sectors (MAN and NMS) forces overall NULC down and makes for the NULC staying close and below Euro area inflation (in most recent years more through manufacturing). The evidence that both unionised sectors have relatively low NULC but do not move closely together suggests that it was the protracted depression and ongoing deindustrialisation, rather than concertation through pattern bargaining, that made for this ‘adjustment’. In recent years, we see a fairly strong redistribution towards profits as overall NULC drop sharply against domestic inflation.

Graph 2b: Germany

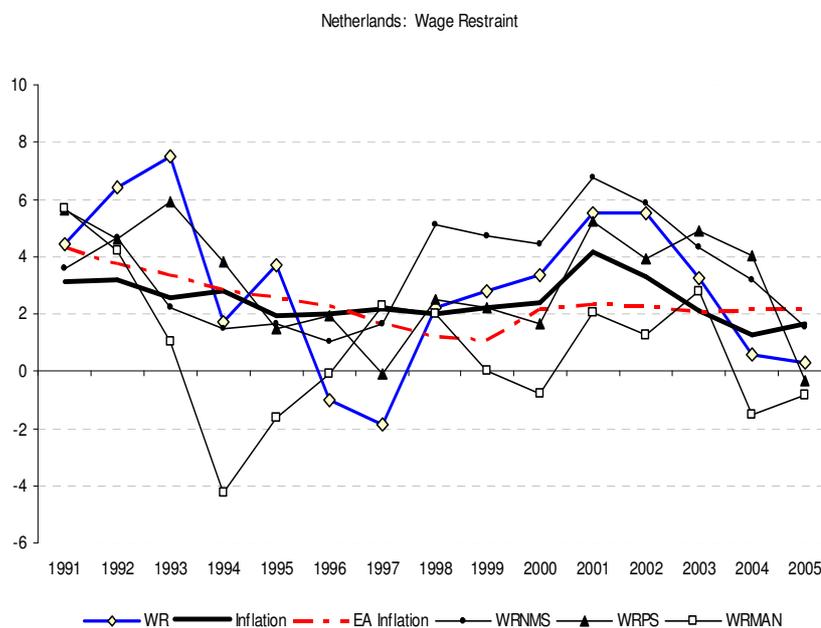
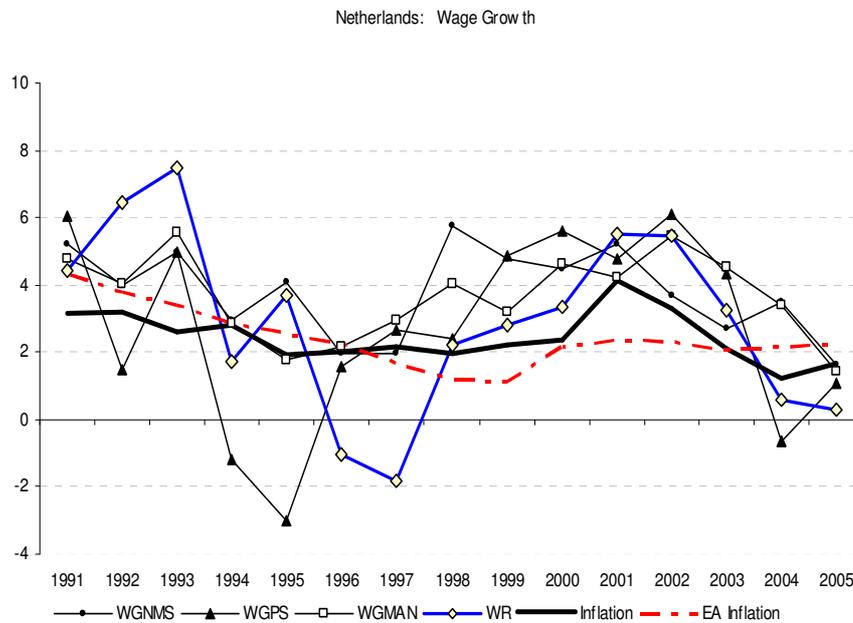


Source: AMECO, EU_KLEMS, and OECD.stat 2007

The contrast of the Netherlands with wage coordination in Austria and Germany is revealing. We observe no obvious change before and after the onset of EMU. There is a closer correlation of nominal wage growth in unionised sectors while nominal wages in personal services move quite pro-cyclically in both directions. As far as adjustment is concerned, we can see that after 1996 excess domestic inflation rate was driven by unionised services (and during the stagflationary years of 2000-2003 by non-unionised

services). The NULC in manufacturing bear the brunt of adjustment but succeed only after 2003 when effective wage restraint in services comes back into line. This implies a profit squeeze throughout the early years of EMU.

Graph 2c: The Netherlands



Source: AMECO, EU_KLEMS, and OECD.stat 2007

So we find fairly diverse responses in these three economies with their previously similar stability orientation: swift concerted adjustment in Austria, struggle and effective

adjustment through depressed economic activity in Germany, and until 2003 non-adjustment in the Netherlands. Can we explain this in terms of the changes in the interaction with monetary and fiscal policy outlined above? The following table summarizes the arguments made above and specifies them for the three political economies under scrutiny.

Table 6: Overview of changes in the interaction of collective wage adjustment to

<i>interaction with</i>	Austria	Germany	The Netherlands
monetary policy (1): shadow of the central bank	no change (ECB substitutes for Bundesbank)	change (ECB is more remote than Bundesbank)	no change (ECB substitutes for Bundesbank)
monetary policy (2): pro-cyclical real interest rate	real interest rate as in Euro area (EA) average	higher real interest rate than EA average	lower real interest rate than EA average in the early years
fiscal policy (1): fiscal surveillance in EMU	not a binding constraint	a binding constraint	temporarily a binding constraint
fiscal policy (2): structural reforms and 'safe' sector	so far, public and private services are still highly (self-) regulated and protected (OECD)	network industries and transport services are still highly protected (OECD)	public and private services already quite liberalized (OECD)
<i>what has changed?</i>	little change	monetary policy (less constraining) and fiscal policy (more constraining)	fiscal policy (somewhat more constraining)

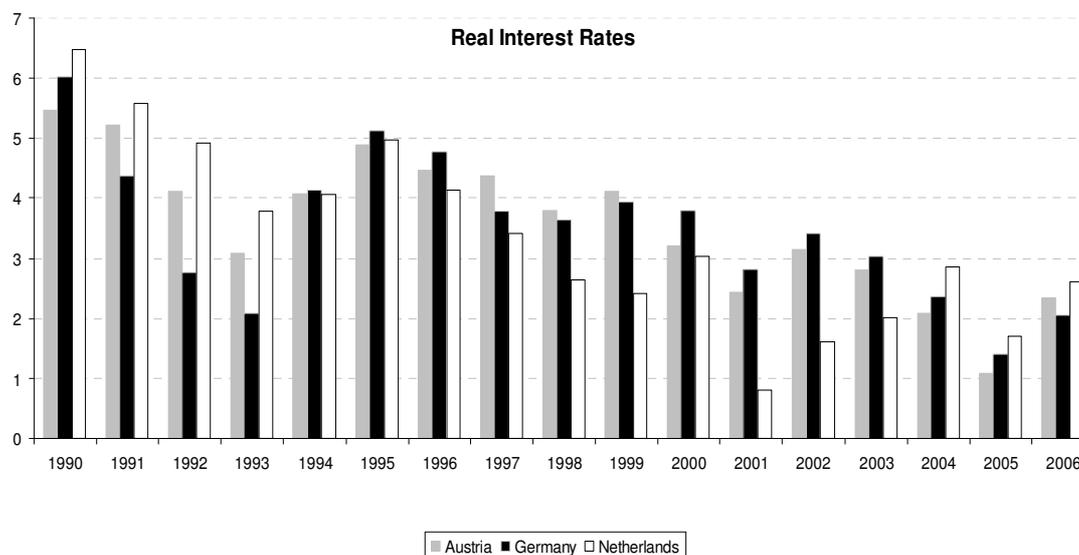
The first interesting observation is that the country for which EMU did not make much difference, namely Austria, fared best in terms of the combination of price stability, sustained growth, and high employment; while the country for which the changes in the macroeconomic policy regime were most noticeable, Germany, did best in terms of price stability but at a high price of low growth and rising unemployment. Why this was the case is still a matter for research. One possible explanation is that, in order to restore competitiveness, Germany was forced to make a painful real exchange rate adjustment given an overvalued conversion rate to the Euro, but was constrained in its adjustment efforts due to EMU (Palazuelos Martinez, forthcoming thesis). But it is also possible that it was a culmination of long-run economic challenges, such as deindustrialisation and the export-led growth model delivering less growth in a large economy, for which the dual (German plus monetary) unification was the straw that broke the camel's back (or at least gave it a serious back ache).

Secondly, the change in the shadow of the central bank can neither explain the difference in inflation performance between Austria and the Netherlands nor did the loss of the

Bundesbank shadow lead to more inflationary wage settlements in Germany. On the contrary, which clearly rejects the bold predictions of scholars focused on labour market institutions and the signalling game with the central bank (Hall and Franzese 1998, Soskice and Iversen 1998). This also suggests that the change in the monetary regime was not as deep a structural break as the literature on the ECB as a commitment device implies: the loosening of a commitment, in the case of Germany, was compatible with even less inflation and the same ECB constraint coincided with very different inflation rates in Austria and the Netherlands. The combination of the same competitiveness constraints in the exposed manufacturing sector with a more or less explicit lead for this sector's collective agreements, as Johnston and Rodriguez d'Acri (2008) propose, seems to be a better candidate for explaining Austria's success and the Netherlands' failure in inflation control.

Thirdly, it seems that pro-cyclical real interest rates did make themselves felt as a relative monetary restraint in Germany and as a relative monetary ease in the Netherlands. This can account to some extent for the disappointing performance of both economies but was an underestimated consequence of a unitary monetary policy for a heterogeneous currency union. Fiscal and monetary policy may have to develop ways of dealing with the corresponding asset market fluctuations, for instance fiscal policy through windfall taxes on property values, to slow down the translation of pro-cyclical real interest rates into wage settlements that are destabilising, both in their depressing and in their inflationary effects. It has to be said, however, that Austria's real interest rates were not much lower than Germany's and all real interest rates came down since the mid-1990s, so in and of itself, this effect cannot explain why Germany did considerably worse than the other low inflation country in our sample, Austria.

Graph 3: Real interest rates in Austria, Germany and the Netherlands

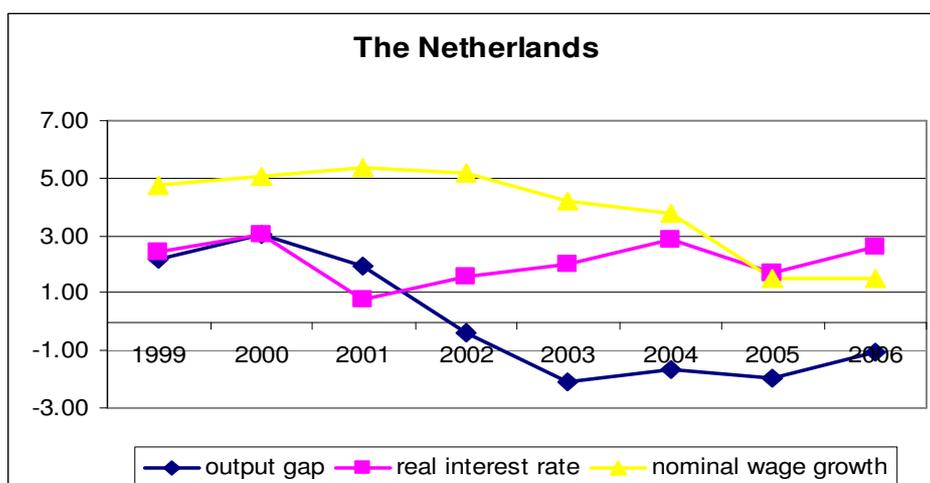
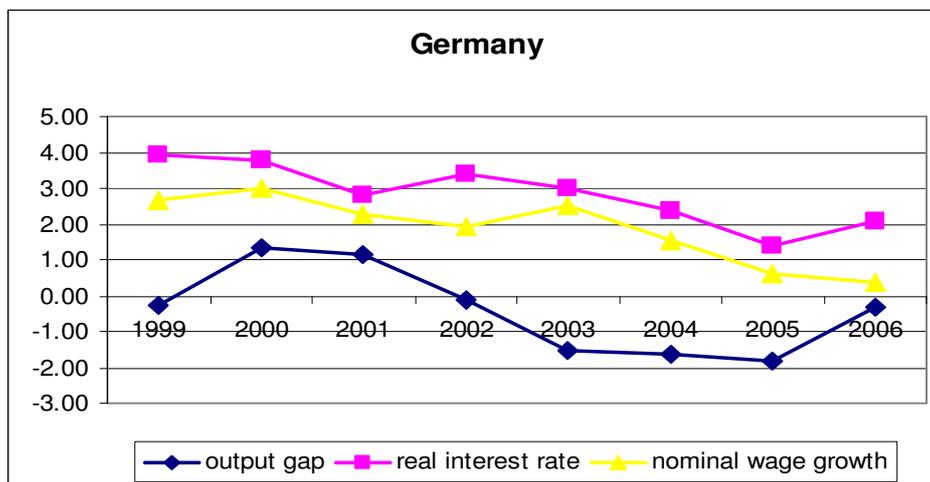
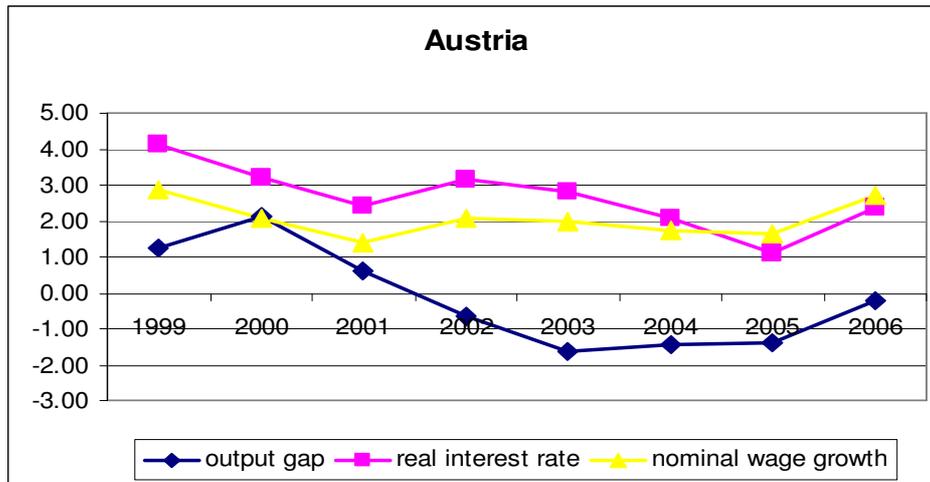


Source: OECD.stat, 2007

The puzzle is also not completely solved if we look at how real interest rates and nominal wages responded to real output gaps. Given the uncertainty in estimating output gaps, the following has to be taken as an indication, rather than tight evidence. Real interest rates moved pro-cyclically (up when the output gap decreased/ became negative; down when the output gap increased/ became positive) but not strongly: in Austria three times (1999-2000, 2001-02, 2002-03); in Germany just twice (2001-02, 2002-03) but in the Netherlands in 4 years in a row (2000-2004), interest rates were first too low and falling in the boom and later high and rising when the Dutch economy entered a downturn. In all countries, real interest rates rose quickly, one might say prematurely, in 2005-06 when all recovered from a negative output gap. Based on these graphs, there is some evidence for a pro-cyclical real interest movement in the early years of EMU but certainly not dramatically so.

Aggregate wage developments contribute to some extent to an explanation ex post. In Austria, they held fairly steady around 2% annual increase which means neutrality as regards inflation and domestic demand, given that this is close to trend growth of labour productivity. In Germany, wages followed to a worsening output gap resulting since 2003, with possibly negative effects on demand. In the Netherlands, wage increases were out of line with the cyclical situation in the early years but then followed the worsening trend. It is interesting to note that real interest rates and nominal wage increases move closely together in Austria and Germany but not in the Netherlands, indicating in the case of the latter that both interest rates and wages failed to stabilise the economy, while there is no obvious and strong misalignment discernible in the former.

Graphs 4a-c: Output gap, real interest rates and nominal wages in AT, GE, and NE

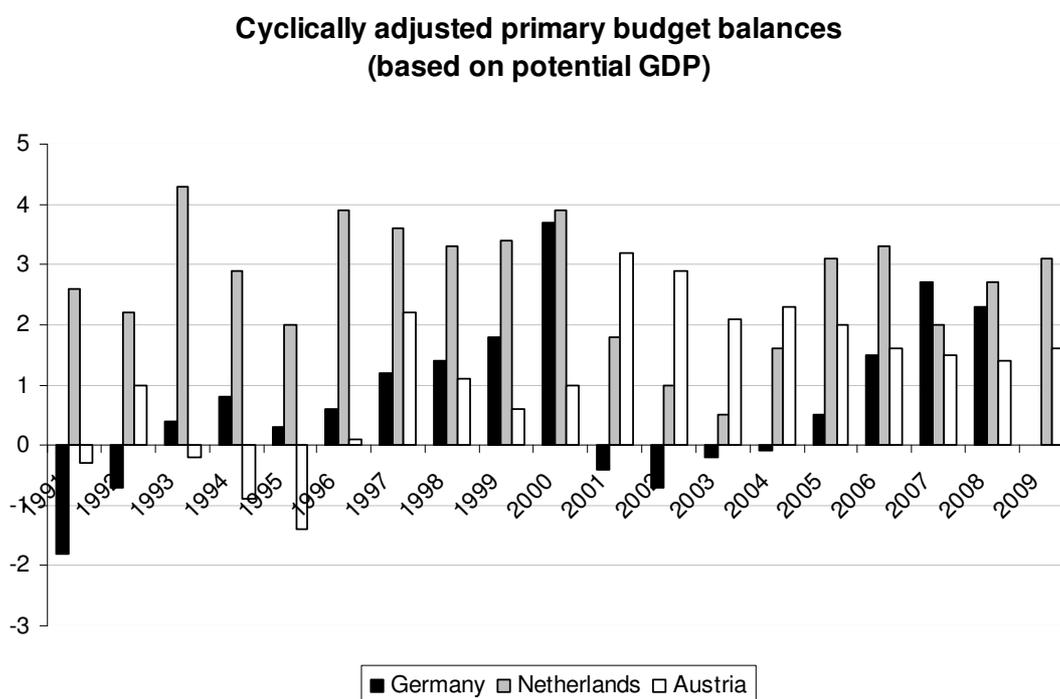


Sources: OECD, AMECO

Finally, the greatest variation between the three countries can be found in fiscal policy and again, there are some surprises in store. The Dutch and the German fiscal situation were more comparable in that both had difficulties of staying within the 3 percent threshold, Germany more so than the Netherlands. Yet for very different reasons: the Dutch economy was overheating and wage bargains in the public sector went over the top ever since 1998. In Germany, the fiscal constraints were thought to depress economic activity further by constraining a counter-cyclical response.

But a closer look at the primary structural balance, ie the most telling indicator of the government's discretionary stance, indicates that the role of EMU's fiscal constraints does not suggest that Germany made an ill-fated attempt a pro-cyclical stabilisation or that the Dutch government was complacent (graph 5). The German government tried to stimulate mildly in a counter-cyclical way, ignoring its obligations under the Pact which would have required a pro-cyclical budgetary surplus. The Dutch government, by contrast, pursued a vigorous consolidation effort in 1998-2000 that made the economy stagnate since early 2000 and even experience a recession in 2001. The government then relented somewhat although it did not give up completely on reining in the budget deficit; in vain, as the 'excessive' deficit in 2003 indicates. By contrast, the Austrian government pursued a steady course of fiscal consolidation, letting automatic stabilisers largely take care of cyclical conditions.

Graph 5: Cyclically adjusted balances, excluding interest payments



Source: AMECO, January 2008

Can we make sense of this variation in terms of our interaction hypothesis? Wage settlements were pro-cyclical in both Germany (low) and the Netherlands (high) with

respect to the very different states of national labour markets. This pro-cyclicality may have been fostered by liberalisation and privatisation of key public services in both countries, since it is noticeable that wage bargains were most responsive and ‘flexible’ in the Netherlands and, to a lesser extent, Germany; services in both countries are less protected than in Austria.⁹ The real interest rate effect of a common monetary policy did not help stabilisation in either country. Only fiscal policy responded with a discretionary counter-cyclical stance. But the expansion in Germany was too little, too late while the restrictive stance in the Netherlands could not prevent inflationary wage bargains.

All we can conclude at this stage is that the qualitative evidence presented above does not contradict the hypothesis that it is the interaction that counts. Neither collective agreements nor fiscal policy on their own will be able to control inflation effectively or only at very high costs in terms of GDP and employment, especially if a common interest rate policy cannot help but have more or less pronounced pro-cyclical effects. Germany and the Netherlands illustrate this insight for two different cyclical situations. And the Austrian case is compatible with this interpretation as well by illustrating the successful continuous operation of tri-partite concertation.

Concluding observations

With respect to the main question of this contribution, we find that the differences in inflation performance, our measure for ‘adjustment’, does not systematically differ between large and small economies in EMU. Only Austria and Belgium fit the bill among the small countries, ie wage coordination there seems to have stayed similar or even increased and correlated wage restraint has kept inflation low. Only Spain conforms the predictions for large economies, namely wage coordination between sectors decreased and high inflation was not reined in by wage restraint in the unionised sectors. But we do find a structural break in the data, with much less correlation in sectoral NULC after the onset of EMU, which seems to contradict the findings of Posen and Gould (2006) that there is no discernible change in wage restraint under EMU. For a summary see table 3.

We then explored the alternative hypothesis, namely that it was the interaction for monetary and fiscal policy with coordinated wage bargains that can explain inflation performance in EMU. This hypothesis can be examined only for sub-groups of countries because it is a case of many variables and possible effects while the number of cases to be investigated is rather small. We have chosen the one that speaks directly to the large-small divide and its conceptual underpinning of a signalling game between central bank and wage bargainers. Other configurations worth exploring could be traditional high inflation countries where no such signalling game existed, like Italy, Spain and Portugal, but for which the current account constraint has been alleviated in EMU.

One way of putting the conclusion from our comparison of Austria, Germany and the Netherlands is in a paradox: non-adjustment to EMU seems to fare best, more of the same old corporatist way of moderating wages, prices and fiscal consolidation has been

⁹ This is based on the information available in OECD economic surveys for each country (cf OECD 2007: ch.4 for Austria, OECD 2008: ch.5 for Germany). The economic survey 2008 for the Netherlands does not mention any need for opening up services or making them more competitive.

successful in responding to the structural break that EMU entailed. The Netherlands confirm this interpretation indirectly in that macro-concertation in the 1990s made for relative success, its failure in the early years of EMU seems to have made for a relatively dismal performance.¹⁰ Our explanation was that the changes that EMU has in store for the triangle of macroeconomic stabilisation amounts to a noticeable increase in pro-cyclicality of nominal income generation. A common interest rate policy generates inadvertently a pro-cyclically moving real interest rate that may trigger asset, in particular, housing price developments which feed pro-cyclical wage demands. EMU's fiscal agenda of constraining budgetary discretion and opening the public services to market competition reduces the scope for counter-cyclical intervention and counter-cyclical wage agreements in the public sector. A country like Austria that could avoid all this, by strong tri-partite concertation and protection of services that kept inflation and thus the real interest rate close to the average, will do relatively well. This combination of corporatism and protection is neither feasible nor necessarily desirable for all member states but it tells us something interesting about member states' inflation control: one way or the other, member states must make up for the fact that governments are short of one counter-cyclical instrument (the nominal interest rate, fiscal discretion) while they need more in EMU. Austria shows one way of doing this, ironically one that was considered to become obsolete.

The disconcerting conclusion from the Dutch experience, especially for the monetary authorities in EMU, is that this country may become more representative for the political economy of stabilisation in the future, especially if members do follow the EMU agenda. Liberalization of services sectors and a sizing down of the 'safe' public sector to its core functions both weaken tri-partite arrangements. Pro-cyclical real interest rate movements undermine attempts at counter-cyclical fiscal policy even if this is not for want of trying: the Dutch government pursued a counter-cyclical policy vigorously and even in good times.

Neither the Dutch nor the German example reveal fatal flaws of EMU. But they do require to think about more sophisticated instruments for monetary and fiscal policy if tri-partite arrangements are either not feasible or not desired. Bubbles in housing markets are the most obvious targets for innovative policy instruments¹¹ which member states as different as Ireland, the Netherlands and Spain experienced. This holds independent of the size of a country.

We would like to conclude, however, with a few cautious remarks¹²: while we are confident that it is the interaction of policies and the role of wage coordination within that interaction that can explain the relative performances of political economies in EMU, the

¹⁰ Schettkat (2005) explains that the success story of the Netherlands in the 1990s, compared to Germany, was due to better coordination of fiscal policy and collective wage bargains, given the monetary constraint of shadowing the Bundesbank. This is very complementary to our assessment of the Austrian success story in EMU but raises the question why successful coordination was abandoned in the wake of EMU. Visser and Hemmerijck (1997) portray the political economy of social partnership and concertation as being more contentious which might explain why the consensus of the 1990s was not sustained.

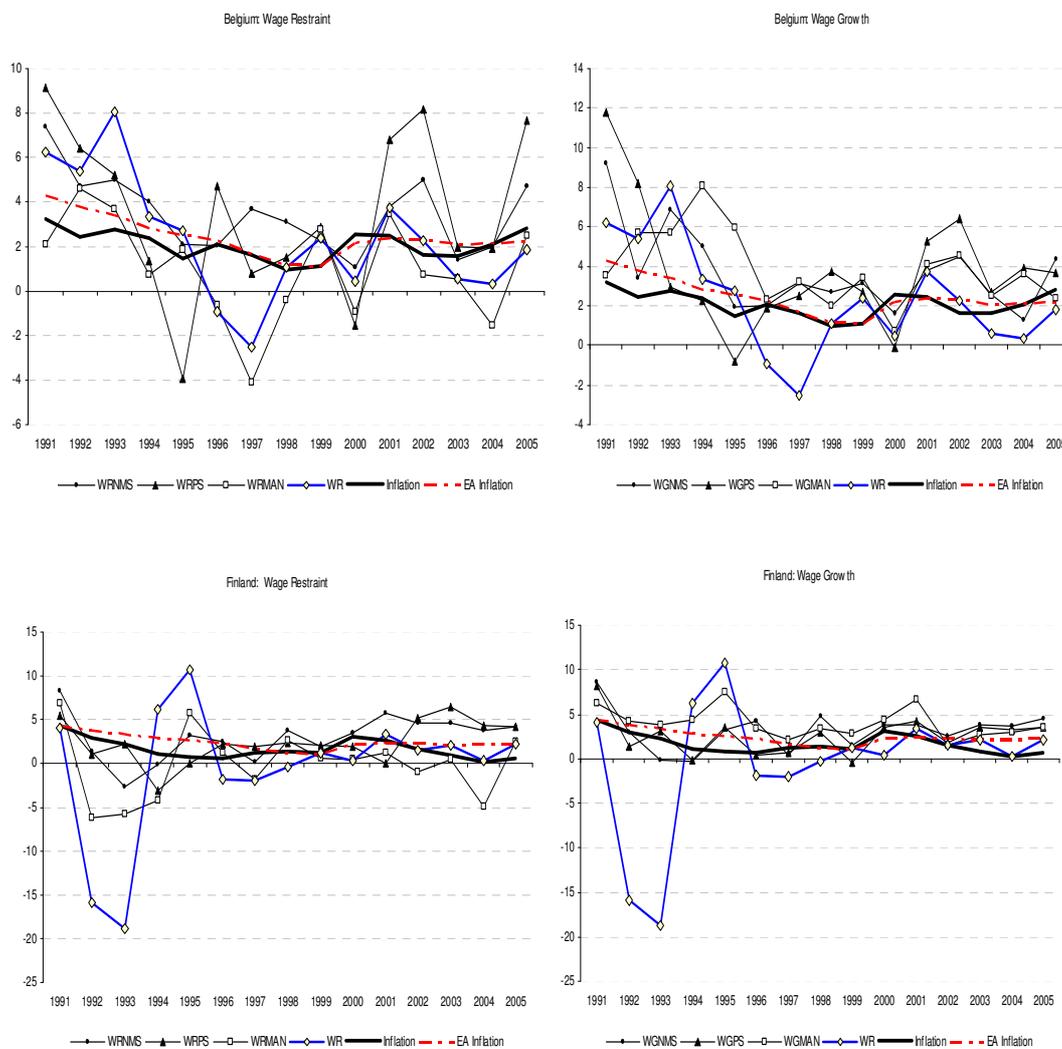
¹¹ Such as macro markets proposed by Robert Shiller (1998).

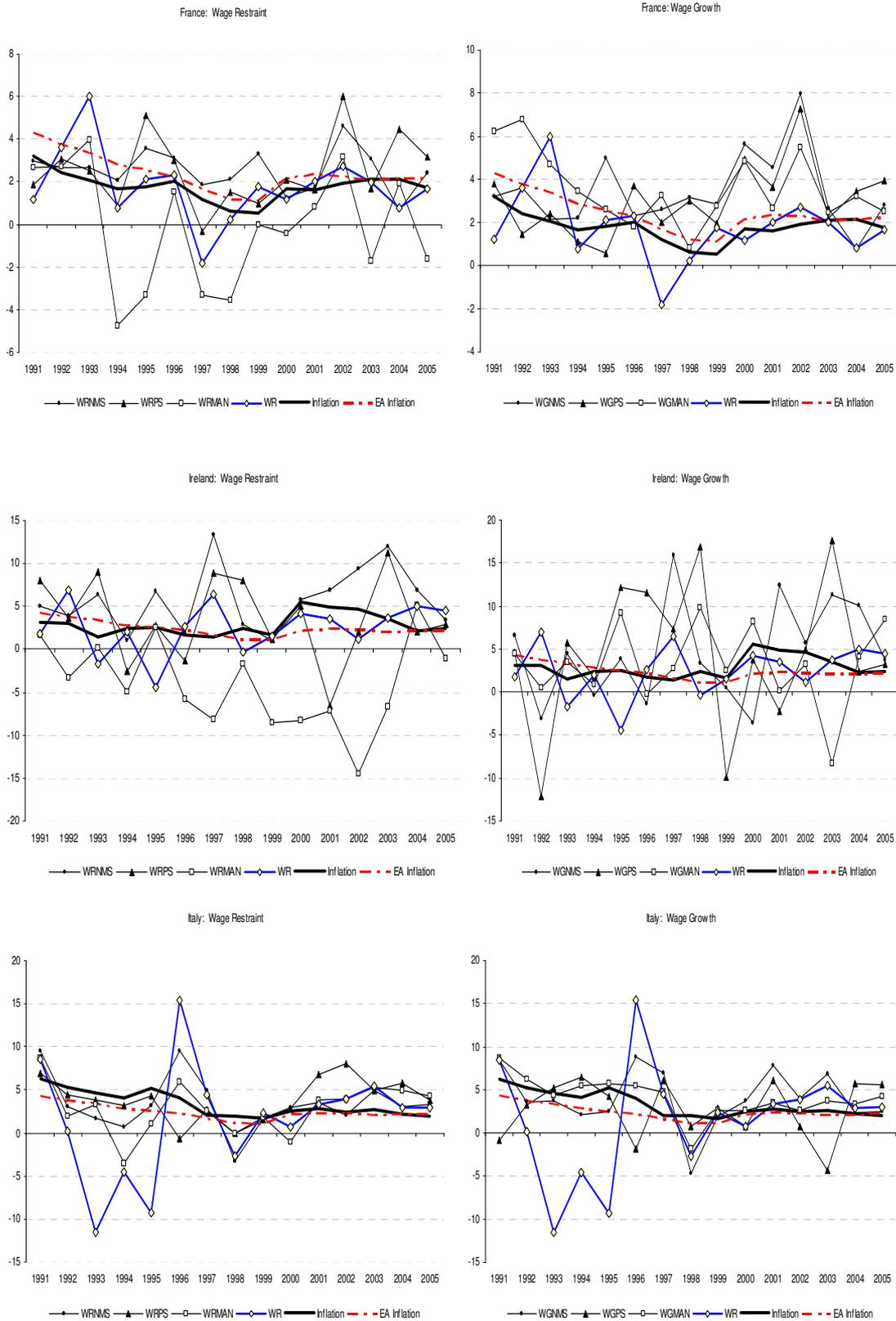
¹² For which we are indebted to our discussant, Esther Perez-Ruiz from the Commission.

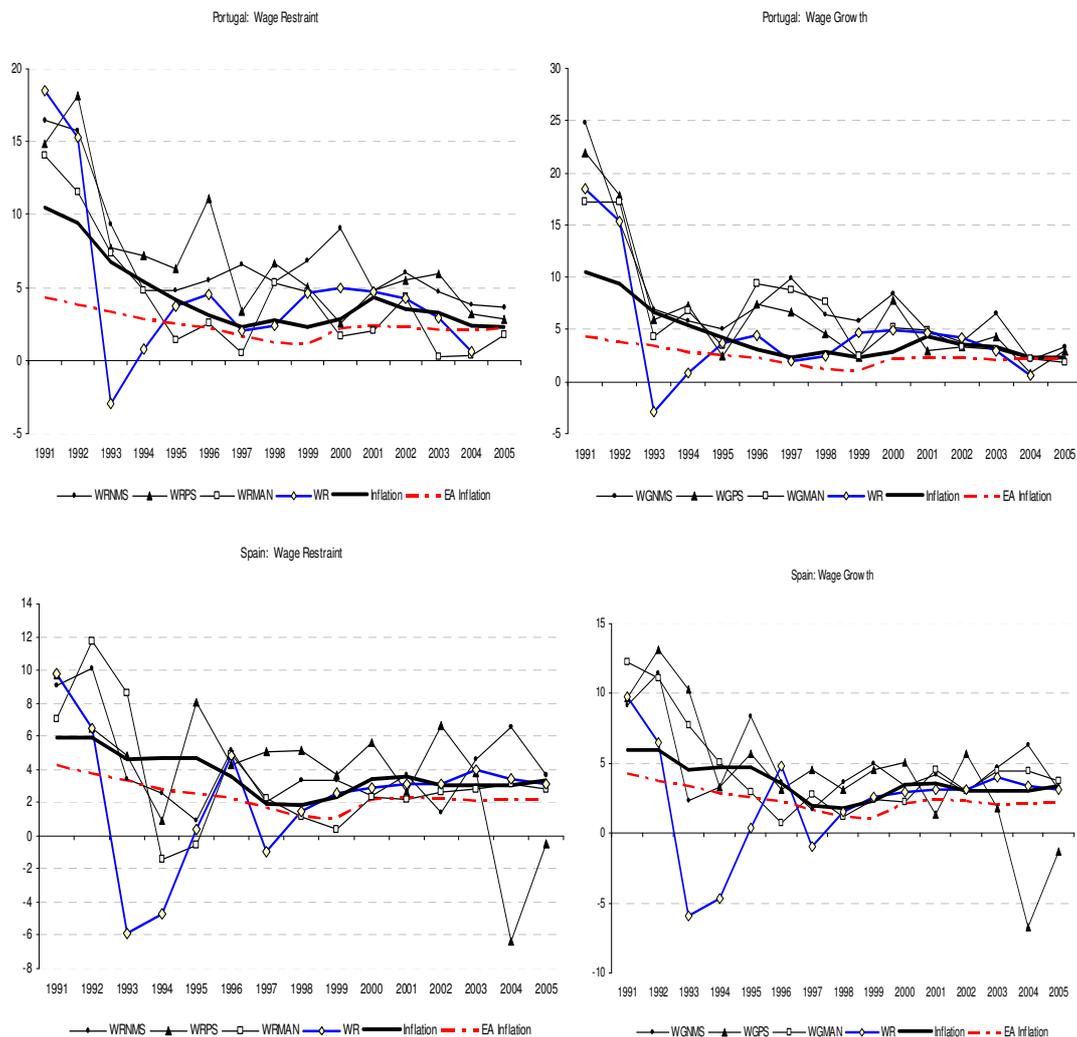
data does not lend strong support to this. The pro-cyclical real interest rate effect is pronounced only when wage increases and inflation rates go strongly out of line. The same could be said about wages which, in the case of Germany, seemed to follow a worsening economic situation rather than induce it through restraint that hurt domestic demand more than it improved competitiveness. Finally, to refute the hypothesis that wage developments alone can explain much we would need a better disaggregation of sectoral wages, in particular in services. Moreover, the degree of unionisation and the degree of wage coordination are only partially correlated, so that the correlations and their apparent structural changes ever since EMU started require further investigation before we can conclude that it is the removal of the Bundesbank’s shadow on unions that has led to less wage coordination.

Appendix:

Source: AMECO, EU_KLEMS, and OECD.stat 2007







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