

**Wage developments in Euroland or: the Failure of the
Macroeconomic Dialogue**

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Abstract

With the creation of the euro, wage bargaining has become Europeanized. Price stability is driven by unit labour costs. The experience of the last 10 years has shown that on aggregate wage bargaining has supported monetary policy. However, national wage settlements have diverged and there is only very weak evidence of convergence to the euro aggregate.

This poses the problem of how to remedy the situation. The Macroeconomic Dialogue was instituted to facilitate macroeconomic stability. It has failed, because of its confidential nature, which prevents the emergence of European-wide policy deliberation. It is suggested that the MED should be transferred from the Council to the European Parliament.

Wage developments in Euroland or: the Failure of the Macroeconomic Dialogue

Stefan Collignon¹

By most accounts European monetary union has been a success in its first decade. Price stability has been maintained. The Stability and Growth Pact has contributed to a significant reduction of the aggregate budget deficit and made public finances sustainable. Unemployment has fallen from 10% to 7.1%, even if economic growth has been lower than in the previous decade.

However, this favourable development stands on weak foundations. Price stability and its interaction with wage bargaining are the key for the future economic performance of Euroland. Inflation has overshoot the ECB target of 2% in 2008; in June and July it stood at 4%, twice the amount of the ECB target. This was largely due to supply shocks from oil and food, which are expected to be temporary. However, whether these shocks have more lasting consequences depends primarily on the response by wage bargainers to the loss of purchasing power. First of all, because productivity growth has fallen to its lowest rates since World War II, real incomes have stagnated or even fallen. As demands for higher wages are becoming more intense, the European Central Bank may be tempted to signal its unwillingness to accommodate higher inflation by increasing interest rates. This would lead to lower growth, higher unemployment and higher public deficits. Second, because wage bargaining takes place in national institutional frameworks, wage dynamics respond relatively little to European macroeconomic conditions. While some countries – primarily Germany – exercise wage restraint, they provide an opportunity for free-riding to others, and this pushes mean wage inflation up. The ECB is rightly concerned with aggregate wage developments and has frequently warned that temporary price shocks must not spill over into permanently higher wage settlements (so-called “second round effects”). At the European level, trade unions and social partners have publically agreed with this policy, however adding, that monetary authorities must respond to wage restraint by growth accommodating monetary

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policies (ETUC, 2006). Yet, national negotiators do not necessarily follow the good intentions for their European spokespeople and the ECB, referring to its independence, is resisting any formal *ex ante* commitments.

Nevertheless, a loose framework for coordinating wage bargaining and monetary policy exists in the form of the Macroeconomic Dialogue (MED). This dialogue, instituted by the June 1999 Cologne European Council, is based on the principle that key macroeconomic policy stakeholders and decision makers and those responsible for wage formation (management and labour organisations) should have a proper understanding of each others positions and constraints. Its purpose is to improve the interaction between wage development and fiscal policies to make it conducive to non-inflationary growth (European Commission, 2008). This is a soft form of policy coordination, resembling the Open Method of Coordination although it is even less constraining. It faces similar problems: What guarantees the implementation of the political “understanding” between participants in the MED? Is there any binding force to dialogue? These questions touch on the essential issues of efficient economic institutions.

This paper will analyse the performance of wage bargaining in the Euro Area in part I and then draw some conclusions for the necessary reform of the Macroeconomic Dialogue in part II. The analysis of wage dynamics must cover two dimensions: the “vertical” interaction between overall wage costs in the Euro Area and monetary policy, and the “horizontal” developments between different member states. In particular, we are interested whether national wage bargains have a long run tendency to converge to the European average. But even if such tendency exists, the speed of adjustment may be critical for the performance and sustainability of monetary union. A discussion of reform must address the issue of the legitimacy of policy decisions. The contractual autonomy of wage bargainers is an essential principle of any market economy - whether social or liberal. Yet, the aggregate outcome of wage settlements has external effects for inflation, monetary and general macroeconomic policies. How can this interdependence be managed in a welfare maximizing perspective, without violating market principles? I will try to respond to this question in the last part of the paper.

I. Wage developments in the Euro Area

In this part I will first look at the aggregate performance of Euroland, then at short term divergences between member states and finally test for long term convergence.

1. Aggregate unit labour costs

European monetary union is founded on the principle that good money is based on price stability. The ECB measures price stability as a rate of inflation in the Harmonised Index of Consumer Prices (HICP) “below 2% over the medium term”². The most widely accepted model for explaining the inflation process is the expectation-augmented Philips-curve model (Gordon, 1982; 1985; 1988; Stockton and Glassman, 1987; Ghali, 1999). It can be represented by a system of equations, where the price level is determined by a markup over unit labour cost (i.e. productivity adjusted wage costs) and supply and demand shocks. Nominal wages are set as a function of expected inflation, labour productivity and supply and demand shocks. Inflation expectation may be backward or forward looking, depending on the reputation credibility of monetary authorities. In this model, the inflation process is crucially driven by unit labour costs. Assuming that the time series for the markup is stationary and the demand and supply shocks have zero means, prices will in the long run reflect developments in unit labour costs (for empirical evidence see Ghali, 1999). The ECB closely monitors labour cost under its pillar 2 framework. It is therefore of interest, how unit labour costs have performed since European monetary union started in 1999.

By definition, changes in unit labour costs reflect changes in nominal wage costs and labour productivity. If the ECB’s inflation target is 2% over medium term, then nominal wages must not increase more than 2% plus productivity increases over the same period. This is the “golden rule” of wage bargaining, which as put forward by policy makers and social partners in the Macroeconomic dialogue (European Commission, 2005). It implies that national and sectoral money wage increases follow the respective productivity trends. If productivity increases are high, like in

² “The ECB’s Governing Council has announced a quantitative definition of price stability: ‘Price stability is defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%.’ The Governing Council has also clarified that, in the pursuit of price stability, it aims to maintain inflation rates below, but close to, 2% over the medium term. “ ECB, 2008

Greece, wages can grow rapidly; if productivity stagnates, like in Italy, the maximum wage increase would be 2%.

Figure 1.

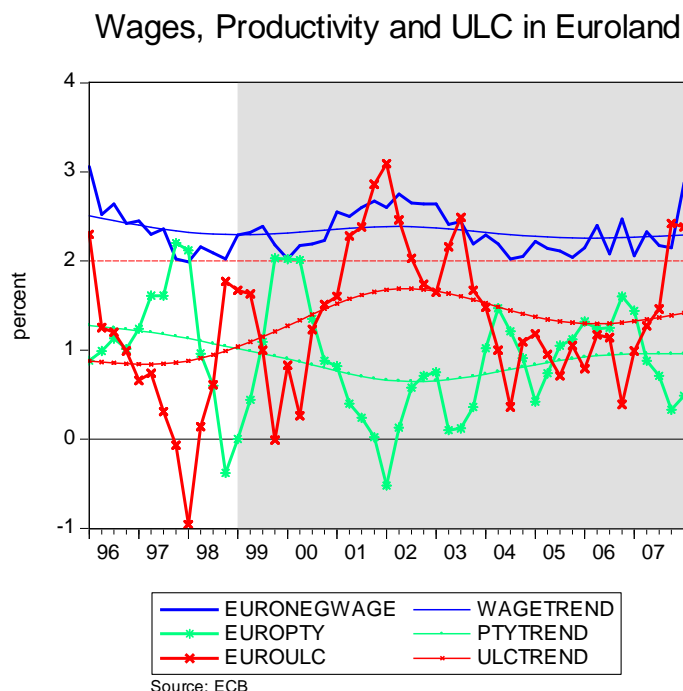
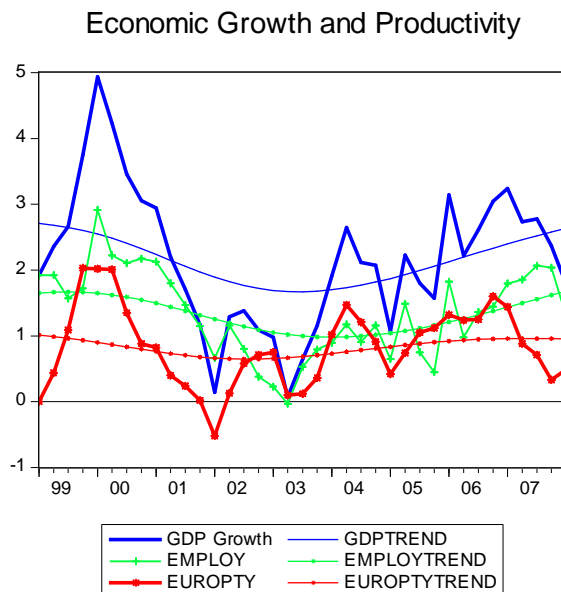


Figure 1 gives an overview of wages, productivity and unit labour costs, Table 1 summarises some statistics for the Euro Area period. The first and remarkable observation is that negotiated wages have remained relatively stable since European monetary union started in 1999, moving in a range from 2-2.8% with a mean of 2.3%. By contrast, productivity has fluctuated within a much wider band, becoming even negative in the first quarter of 2002. As a consequence, unit labour costs have also varied significantly, reaching a high point of 3.09% in the first quarter 2002 and remaining relatively stable in the years 2002-2006. On average, unit labour costs have increased approximately by 1 ½ % over the first decade of EMU. This is significantly less than the inflation target of the ECB. The HP-filtered trend for ULC came never even close to 2% (see Figure 1). In other words, nominal wage restraint has contributed to the overall price stability of the euro. By contrast, changes in unit labour costs are largely driven by variations in labour productivity.

Table 1. Unit Labour Cost Statistics in Euro Area

	annual rates of change 1999-2008				
	ULC	WAGES	PRODUCTIVITY	GDP GROWTH	EMPLOYMENT
Mean	1.47	2.33	0.83	2.17	1.34
Maximum	3.09	2.88	2.03	4.94	2.92
Minimum	-0.01	2.02	-0.52	0.07	-0.03
Std. Dev.	0.74	0.23	0.60	1.06	0.67
Observations	37	37	37	37	37

Now, labour productivity depends on supply and demand shocks in the short term and on the economy's supply side conditions, namely total factor productivity and capital intensity in the long term. In order to disentangle short and long run dynamics, we use a Hodrick-Prescott filter for calculating the long run growth series of GDP, employment and productivity (see the thin lines in Figure 2) and take the deviations as short term shocks. The GDP deviations can be interpreted as demand shocks and the employment residuals as supply shocks. We seek to find which factors dominate the trend behaviour in EMU's labour productivity, and which role do supply and demand shocks play.

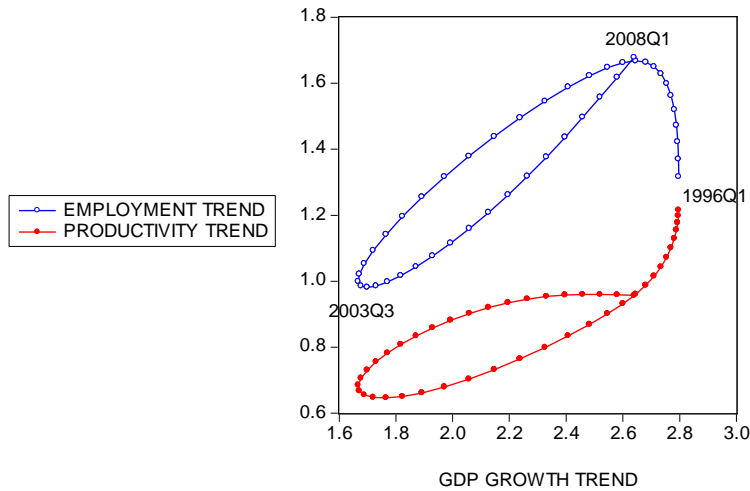
Figure 2

We find that the GDP growth slowdown in 2000-2002 was significantly larger than for employment and this labour hording behaviour by firms has contributed to a fall in labour productivity. If labour market flexibility is defined by easy “hire and fire”,

labour hoarding may be a characteristic of Europe's social model with "rigid" labour markets. However, such features would also imply that labour productivity improves as soon as economic growth resumes. But this is not the case. When growth returned in 2003, employment increased more than productivity. Thus, a number of studies have observed significant changes in European labour markets since the mid 1990s (European Commission, 2007; CER, 2008): while in the earlier period economic growth was largely jobless, i.e. characterized by raising productivity, labour market reforms have made job creation more attractive. But new jobs have come at the expense of productivity. Nevertheless, it is still true that higher economic growth is correlated with higher productivity, because part of economic growth results from higher capital accumulation per worker (CER, 2008). This is borne out by Figure 3, which shows the correlation between trend growth for GDP, employment and productivity. GDP trend growth was higher in the late 1990s than during the first decade of monetary union, but employment had a tendency to increase, even when economic trend growth slowed down. It peaked in the third quarter of 1999 and then gradually declined until 2003Q3. Thereafter trend GDP growth picked up again, but at first this accelerated productivity rather than employment growth. As the growth rate became more stable, firms started to employ more people and the acceleration of productivity disappeared. However, although employment accelerated faster than productivity, both are positively correlated with growth.

Figure 3.

Trend Growth, Productivity and Employment



Correlations say nothing about causes. Granger causality tests reveal that European productivity growth precedes increases in both employment and long term GDP growth, but the latter also causes higher employment.

Table 2

Pairwise Granger Causality Tests

Sample: 1999Q1 2008Q1

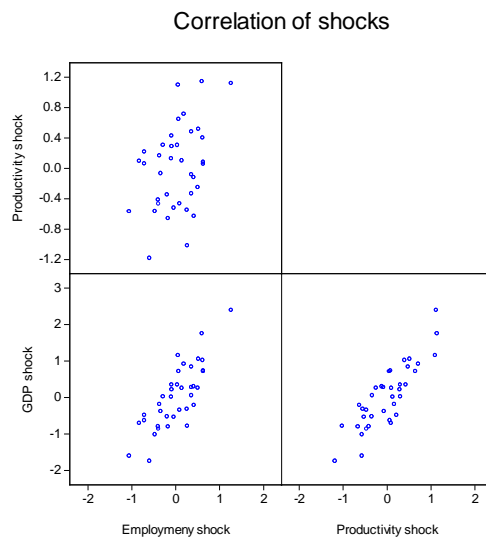
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Null Hypothesis:	Obs	F-Statistic	Prob.
EUROPTYTREND does not Granger Cause EMPLOYTREND	37	55.4116	4.E-11
EMPLOYTREND does not Granger Cause EUROPTYTREND		1.90475	0.1654
GDPTREND does not Granger Cause EMPLOYTREND	37	34.7661	9.E-09
EMPLOYTREND does not Granger Cause GDPTREND		8.93301	0.0008
GDPTREND does not Granger Cause EUROPTYTREND	37	0.40837	0.6682
EUROPTYTREND does not Granger Cause GDPTREND		2.85701	0.0722

What about the role of shocks? We have defined them as a deviation from the long term trend. Figure 4 shows a fairly close correlation of GDP shocks with employment

and productivity shocks, but less between productivity and employment.³ Granger causality tests are not significant. We must therefore conclude that minimising demand and supply shocks will translate in more stable productivity developments and therefore ultimately in a more stable cost and price environment in the Euro Area. This is an interesting result, for *it implies that monetary policy must give consideration to output stability in order to achieve price stability*, provided Trade Unions and employers keep nominal wage dynamics stable.

Figure 4.



The remarkable nominal wage restraint in Euroland, observed in Figure 1, has no doubt been possible because of the stability in the economic world environment. The question is whether stable wages are still sustainable in a more inflationary environment, when shocks originating in the world economy spill over into the Euro

³ The Pearson correlation coefficients are given in the following table and we can reject the hypothesis that they are equal to zero.

Covariance Analysis: Ordinary

Date: 09/06/08 Time: 20:31

Sample (adjusted): 1999Q1 2008Q1

Included observations: 37 after adjustments

Correlation

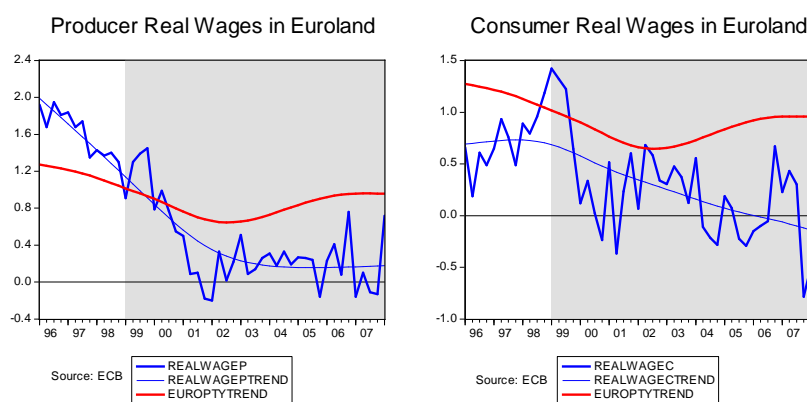
Probability

	EMPLOYSHOCK	EUROPTYSHOCK	GDPSHOCK
EMPLOYSHOCK	1		

EUROPTYSHOCK	0.375751	1	
p-value	0.0219	-----	
GDPSHOCK	0.801552	0.855078	1
p-value	0.00000	0.00000	-----

Area. Figure 5 shows the development of real wages. The striking feature is the general trend to lower real wages during the EMU period. Producer real wages are deflating nominal wages by the GDP-deflator. The discrepancy between these figures and the trend of labour productivity are an indication of the improvement of profit margins. By contrast, consumer real wages, which use the Harmonised Index of Consumer Prices and measure the purchasing power of wage earners, have actually *fallen* since the mid-2000s.

Figure 5.



The stagnation of real wages in Europe has a long history. It started with the secular slowdown in labour productivity in the 1970s. While real wages and productivity grew between 4 and 6 percent per annum in the 1960s, their trend growth fell to only 1-2 percent after 1980. However, for the last 25 years real producer wages have lagged behind labour productivity – with the consequence that the wage share been falling quasi continuously (see Figure 6). One may argue that this was a desirable development in order to improve on Europe’s enduring unemployment problems. However, European unemployment started to rise simultaneously with the fall in the wage share, while in the USA a “flexible” labour market has prevented a similar deterioration. As Olivier Blanchard has frequently observed (for example see 2004), the interaction between Europe’s wage share and unemployment remains an unexplained puzzle. But it is clear that the *falling* wage share reflects a distributional disequilibrium to the detriment of wage earners.

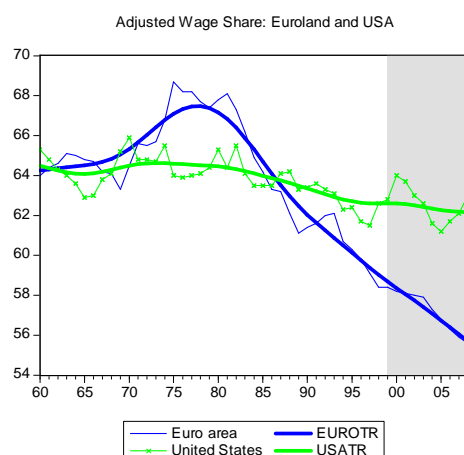
One obvious explanation is wage cost competition from emerging economies in a globalised economy. The integration of China, India and other emerging countries

into the world market with large quantities of workers from the rural sector getting absorbed into industry has lowered the world reservation wages below which it is impossible find workers. At the same time, the opening of markets has increased the rate of substitution between goods produced in different countries. This makes increasing real wages in sectors with tradable goods increasingly difficult. If European workers and trade unions seek to redress this imbalance by rising wages, something that Hahn and Solow (1995) have called the “justice motive” in wage bargaining, their behaviour will lead to higher unemployment and not to inflation. Workers then have a choice of trading higher real wages against job security. Falling real wages indicate that their preference is for employment security.⁴ However, if and when the quasi-unlimited supply of labour in China and other emerging economies dries up, wages in those countries will start to rise. This will improve the margins for European wage bargaining and it is reasonable to expect that the justice motive will then become more pressing again. In this situation, low productivity is a crucial constraint. For as long as productivity increases at a rapid pace, real wages can even increase while the wage share is falling and workers experience improved living standards. In other words, distributional justice can then be traded off against higher real incomes. However, with stagnating productivity, wage bargaining becomes a zero-sum game and an improvement in real wages will squeeze profits. Distributional conflicts about inconsistent shares of income will then lead to higher inflation⁵.

⁴ To avoid misunderstandings: the trade-off is between real wages and job *security* and not between real wages and lower unemployment. I may accept to see my real wage reduced, while others may still loose their jobs.

⁵ This proposition underlies the theory of NAIRU (non-acelaerating rate of unemployment).

Figure 6



Do we have a theory for explaining the inconsistency of claims to income shares? Calmfors et al. (1988) have famously argued that inconsistent claims depend on labour market structures. They are less likely if the labour market is highly decentralised or highly centralised, so that there is an inverted U-shape in the relation between inflation, unemployment and low to high degrees of wage bargaining. The subsequent literature has extended this argument to other institutional features of wage bargaining. The basic argument is the following; if wages are negotiated at a highly decentralised level, where output is highly substitutable, higher wage claims do not translate into higher prices. If wage bargaining encompasses larger production sectors, the elasticity of substitution in this sector is reduced⁶ and wage cost increases push up (relative) prices. But if wage bargaining is perfectly centralised, wage increases fully translate into price increases and real wages cannot be pushed up. In the European economy, the situation is complicated by the fact that the single market has increased the substitutability of goods across borders, while wage bargaining still takes place in a national framework without significant cross-border cooperation. European monetary policy provides the hard budget constraint (price stability) for the Euro Area, but national wage settlements will allocate competing income claims. National Trade Unions have little price setting power in the European sector of the economy, but they keep such power to some degree in the non-tradable sector. This means, national wage bargainers can choose between two strategies, none of which is sustainable. They can either maximise national employment by undercutting the unit

⁶ For example, food and cars are less substitutable than butter and margarine.

labour costs of other member states; or they can maximise income by pushing national wages above the European level. We must therefore now look at national wage developments within the Euro Area.

2. National wage dynamics

While the dynamics of aggregate unit labour costs determine pressures on the Euro Area price level, national unit labour costs are an indicator for competitiveness of firms operating in different member states. If ULC increase more rapidly in one region than in another, existing production capacities for tradable goods loose competitiveness and further investment will be located in more attractive regions. Such handicap may be temporarily compensated by higher national price inflation, so that profit margins do not immediately suffer. But given that in monetary union all prices are subject to the same monetary policy constraint, regional price levels can not drift away from the aggregate price level permanently. Sooner or later an adjustment is necessary and the later it occurs, or the slower it proceeds, the more painful it will be in terms of growth, employment and welfare losses.

Critics of European monetary have union often argued that Europe's labour markets are too rigid for rapid adjustments in relative labour costs and they believed in the necessity of adjustment through changes in the nominal exchange rates. Mundell (1961) has replied that the feasibility of nominal adjustment depended on the nature and correlation of economic shocks. The optimum currency area literature has subsequently recommended that only countries, with sufficiently flexible labour markets should join a monetary union. Others have responded that EMU would break the national cartels of wage bargaining and therefore make the adjustment process easier (Sievert, 1993). Soskice and Iversen (2002) have argued that shifting monetary policy from the deflationary Bundesbank to the European Central Bank would lead to high German wage increases, while Hancké and Soskice (2002) expected wage bargainers in other countries to target undercutting German settlements. Ten years after European monetary union started, it is time to asses what has actually happened.

Figure 7 shows the evolution of unit labour cost *levels* expressed in a common currency (ECU and Euro) since 1980.⁷ The logarithmic scale allows interpreting the slope of the curve as an indicator for ULC-inflation. One clearly perceives the regime change after the crisis of the European Monetary System in 1991 and the commitment to price and cost stability. It is also apparent that the dispersion of ULC levels was generally higher in the 1980s although there was a core group where it was less.

Figure 7.

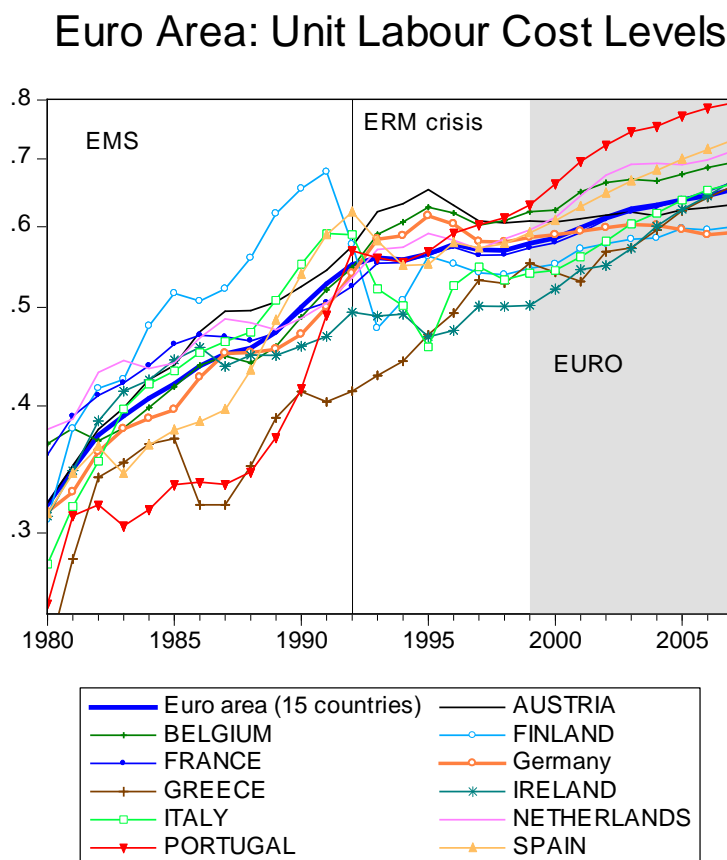
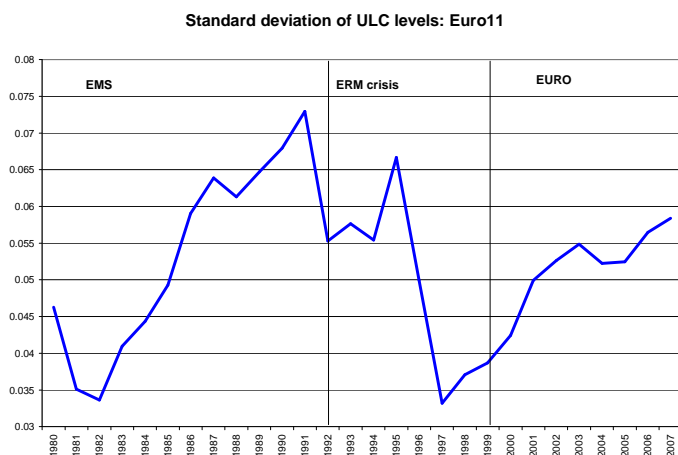


Figure 8 reveals that the standard deviation of ULC levels within the group of 11 countries has increased steadily since monetary union started. The initial dispersion was relatively close after corrections in the 1990s due to nominal exchange rate corrections and wage restraint prior to joining EMU. But from Figure 7 it is clear that nominal exchange rate adjustments during the EMS-crisis in 1991/2 did not only

⁷ These time series were constructed with annual data from AMECO 2007 data bank. For an explanation of the calculation, see <http://www.stefanollignon.de/PDF/Explanatory%20memo%20on%20Unit%20Labour%20Cost%20database.pdf>

eliminate overvaluations, but also caused some significant undervaluations, which persisted well into the Euro Area. This is particularly true for Finland, Italy and to a different degree for Ireland. The nominal exchange rate adjustment story only fits the Spanish experience. Portugal, which was not part of the exchange rate mechanism in the 1980s, broke its appetite for high wage increases in the early 1990s, when it became part of the EMS. But unit labour costs have continued to rise in Spain and Portugal, reaching levels far above the average Euro Area level. In Ireland and Italy wage costs also grew faster than the aggregate, but given their low starting point they only eliminated their previous undervaluation, which ended by 2005. Germany suffered from lack of competitiveness in the mid-1990s after unification, but starting in 1996 it has brought ULC back in line with average European developments. Due to aggressive wage restraint after the start of monetary union, and particularly after the labour market reforms introduced by the Schröder government (Hartz IV reforms), ULC have fallen in Germany and are now the lowest in Euroland. This is not exactly a story that could serve as a model for the rest of Europe.

Figure 8

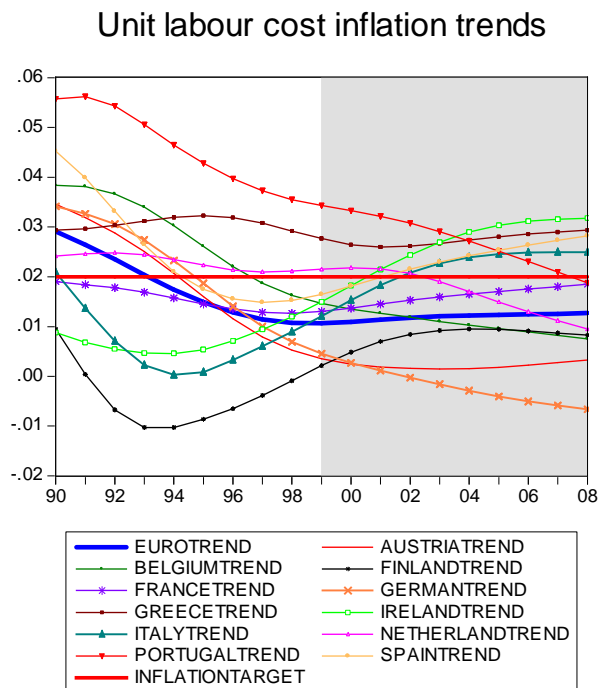


Thus, the overall picture is one of significant diversity in unit labour cost levels. From Figure 7 it is difficult to judge whether these discrepancies are sustainable or not. In order to get a clearer grasp on the dynamics underlying the movements of ULC levels, we will look at unit labour cost inflation, i.e. the first differences of logged levels. We are interested in two aspects: are national ULC-inflation rates compatible with the medium term inflation target of the ECB? And are transitory deviations from trend re-enforcing or compensating each other?

Figure 9 shows the HP-filtered times series for ULC-inflation. While the aggregate Euro Area trend remains well below the ECB target of 2%, four or five member states have persistently remained above this level. A number of countries had low increases before EMU started, presumably in order to qualify for participation in monetary union, but subsequently this restraint was relaxed. Spain and Italy are the most flagrant trend reversers in an upward direction, while Germany and Austria show the downward mirror image. Greece's ULC inflation appears persistently higher than what would be compatible with the ECB target of 2%. In Portugal, ULC have always increased at a more rapid rate than in the rest of the Union, although this trend has decelerated and seems to have joined the euro-average. The structurally higher wage increases in Greece and Portugal may be due to Balassa-Samuelson effect,⁸ but Portugal is an example that even poor countries can converge to the average rate of cost increases. Note however that Portugal still has to bring ULC-inflation further down, presumably by accelerating productivity, in order to reduce its uncompetitive cost levels. In France unit labour costs have a tendency of gradually loosing competitiveness by growing less than the ECB inflation target, but more than the Euro-average. By contrast Germany, Finland and Austria have continuously improved their position of competitiveness. Thus, we may conclude *that the South of Euroland (Greece, Italy, Spain, Portugal and Ireland) has a tendency to push aggregate unit labour costs up above the ECB objectives, while the North (Austria, Germany, Belgium, Netherlands and Finland) keeps them down*. France, as usual, is the *Weltkind in der Mitten*. If this were a persisting structural feature, it would be worrisome: North and South would drift apart, with the South becoming increasingly less competitive. If unchecked, such development could ultimately lead to the breakup of European monetary union.

⁸ The Balassa-Samuelson effect assumes that productivity increases in the tradable sector, but not in the closed sector. When wages follow aggregate productivity in the economy, the average inflation is higher than in the tradable sector, without the latter loosing competitiveness.

Figure 9.



What about deviations from these trends? Are the national shocks, which push actual wage costs above or below these trends, positively or negatively correlated with each other? Are there cross-border regional wage setting areas? Figure 10 gives the scatterplot of the detrended annual unit labour cost variations from 1960 to 2008. The shaded area represents the space between the minimum and maximum wage shock in Euroland over the period 1999-2008. The red line displays the local polynomial regression based on Nearest Neighbor Fit.⁹ It indicates that national responses to shocks in the aggregate euro-ULC are not the same when the shock is large or when it is in the close vicinity of the long term trend. For example, a large euro-shock is correlated with lower unit labour costs in Germany, but with higher increases in all the other countries. In most countries a negative euro-shock is correlated with lower national costs, except in Austria, Ireland and Southern Europe. *In fact the asymmetry between reactions to positive and negative shocks in these countries may be a crucial explanation why unit labour costs grow faster in Southern Europe than in the North.*

⁹ For details see Eviews6 User manual I: 485

Figure 10.

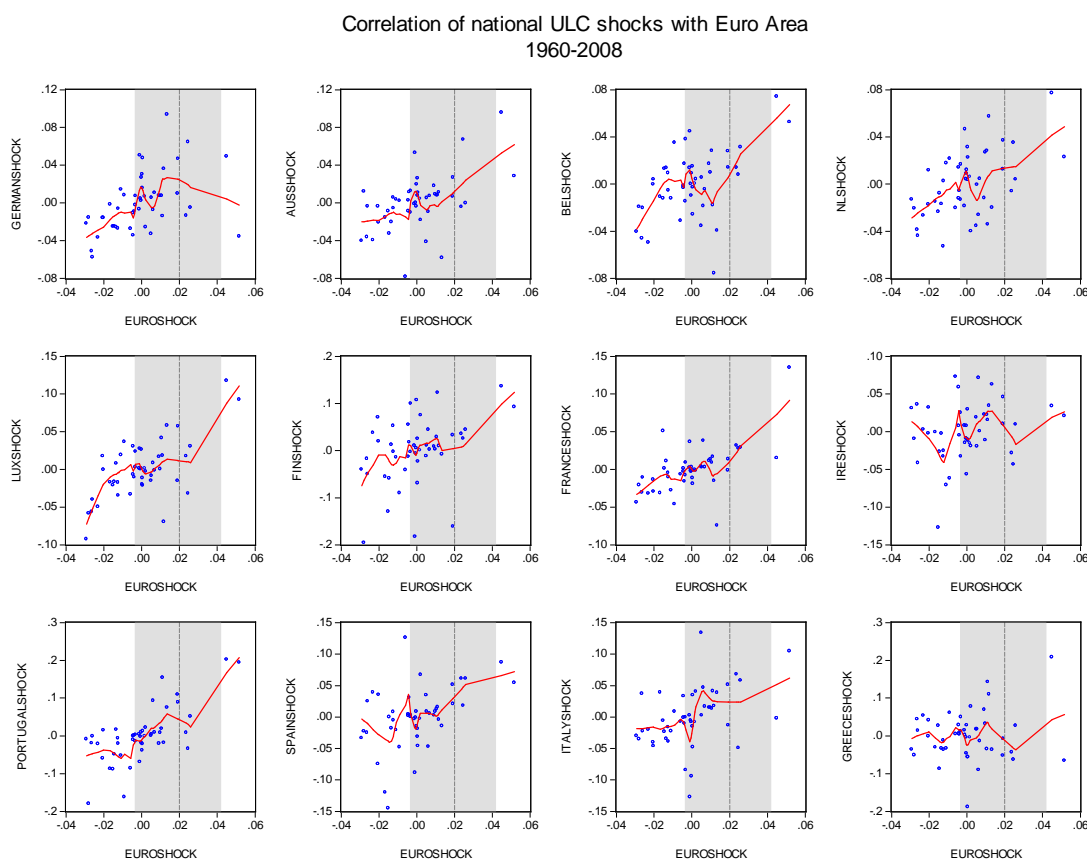


Table 3 gives the correlation matrix between these shocks. The figure in *italics* indicates the probability that the t-statistic cannot exclude the hypothesis of the correlation coefficient being significantly different from zero. Thus, we accept the assumption of *interdependence in wage setting* if the p-value is below 0.05. The table yields the interesting result that the unit labour cost dynamics in two countries, Ireland and Greece, are totally autonomous. These countries live in a world of their own. In most other countries wage shocks are correlated with the Euro Area. This may be an indication that wage bargainers understand the role of the European Central Bank. Italy is interacting with the Euro Area as a whole and with Austria and France. Spain only interacts with the Euro Area, Portugal and, strangely, the Netherlands. Portugal looks at the Euro Area, France and Italy and small economies (Austria, Belgium, Netherlands, Finland), but not to Germany. France is strongly correlated with the Euro Area, Italy and some smaller countries, but not with Germany. In fact German wage developments are only taken into account by Austria

and the Netherlands. This appears surprising, given that Germany is often seen as a wage trend setter (Hancké and Soskice, 2003), but quite rational when one observes the extreme wage restraint that took place in Germany over the last decade.

Table 3: Correlation between ULC shocks (1999-2008)

Correlation Probability													
Sample (adjusted): 1999 2008													
Included observations: 10 after adjustments													
	EURO	GERMAN	AUS	BEL	NL	LUX	FIN	FRA	IRE	POR	SPA	ITA	GRE
EUROSHOCK	1												

GERMANSHOCK	0.792062 0.0063	1											

AUSSHOCK	0.802106 0.0052	0.550726 0.099	1										
	-----	-----											
BELSHOCK	0.631221 0.0503	0.203098 0.5736	0.629811 0.051	1									
	-----	-----	-----										
NLSHOCK	0.832177 0.0028	0.749789 0.0125	0.644982 0.044	0.477186 0.1631	1								
	-----	-----	-----	-----									
LUXSHOCK	0.491801 0.1488	0.281564 0.4306	0.231111 0.5206	0.662691 0.0368	0.564378 0.0892	1							
	-----	-----	-----	-----	-----								
FINSHOCK	0.667802 0.0348	0.399615 0.2526	0.36017 0.3066	0.765582 0.0098	0.488702 0.1518	0.754484 0.0117	1						
	-----	-----	-----	-----	-----	-----							
FRANCESHOCK	0.812431 0.0043	0.364483 0.3004	0.862418 0.0013	0.755898 0.0114	0.670714 0.0338	0.344497 0.3297	0.47201 0.1684	1					
	-----	-----	-----	-----	-----	-----	-----						
IRESHOCK	-0.223738 0.5343	-0.40113 0.2506	-0.472469 0.1679	0.000494 0.9989	-0.166723 0.6453	0.545801 0.1027	0.210476 0.5594	-0.236192 0.5112	1				
	-----	-----	-----	-----	-----	-----	-----	-----					
PORTUGALSHOCK	0.741455 0.0141	0.444874 0.1976	0.719117 0.0191	0.683356 0.0294	0.686939 0.0282	0.537844 0.1088	0.708279 0.0219	0.73147 0.0162	-0.039584 0.9135	1			
	-----	-----	-----	-----	-----	-----	-----	-----	-----				
SPAINSHOCK	0.705624 0.0226	0.457406 0.1838	0.452548 0.1891	0.343701 0.3309	0.703417 0.0232	0.447372 0.1948	0.578854 0.0795	0.538334 0.1084	0.106618 0.7694	0.707321 0.0221	1		
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
ITALYSHOCK	0.773701 0.0086	0.407241 0.2428	0.62379 0.0539	0.492652 0.148	0.450698 0.1911	0.36386 0.3013	0.446926 0.1953	0.746143 0.0132	0.126183 0.7283	0.535726 0.1105	0.542615 0.1051	1	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
GREECESHOCK	-0.068818 0.8502	-0.239053 0.5059	0.053274 0.8838	-0.002527 0.9945	-0.313355 0.378	-0.517787 0.1253	-0.348385 0.3239	0.196082 0.5872	-0.379416 0.2795	-0.468514 0.172	-0.349138 0.3227	0.152031 0.675	1
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	

3. Convergence of European labour costs?

The overall picture of wage bargaining and unit labour cost dynamics since the start of monetary union is confusing. While the aggregate performance is supporting monetary policy, differences between member states raise questions about justice and fairness and ultimately about the sustainability of the Euro Area. National developments show little conformity with the Euro Area's long term trends or short term shocks, but given the heterogeneous environment inherited from pre-EMU times, disparate growth rates could in principle lead to level convergence. We will now formally test, whether there is a tendency for national unit labour costs to converge to the Euroland aggregate. Dullien and Fritsche (2007) have tested for cointegration between the unit labour cost indices for the euro Area and the individual member states. We go one step further.

The underlying model is simple. We formulate the hypothesis that in a single currency area with competitive markets regional unit labour costs cannot diverge for ever. The further national cost levels drift away from the average, the stronger become market pressures to return to the average, because firms loose or gain competitiveness and this affects the tightness of the labour market. The adjustment mechanism may be actual unemployment or simply the rational anticipation of the consequences of unsustainable wage bargains. Similarly, excessive wage restraint with unfair distributional consequences will cause higher wages at least once full employment has been reached. Hence, if labour markets worked correctly, we would expect national ULC inflation to increase when national cost levels are below the aggregate level and come down when they are above. How strongly wage inflation responds to cost level discrepancy determines the long run speed of adjustment. However, long run convergence may be distorted by short run dynamics. A Euro Area-wide shock might affect different regions to varying degrees. This hypothesis can be formally tested by estimating the adjustment coefficients in an Error Correction Model (ECM). In the short run, national developments go in the same direction as aggregate cost developments, but in the long run the adjustment coefficient should be negative and statistically significant at conventional levels. Finally, we have also estimated an equation that includes the discrepancy between national and Euro Area inflation, as this may mask the adjustment process by keeping profit margins up while the national economy is already loosing competitiveness.

In formal term the estimated equations look like this:

$$d \ln ulc_i = c + \alpha(\ln ulc_i - \ln ulc_{euro}) + \beta d \ln ulc_{euro} + \gamma(d \ln P_i - d \ln P_{euro})$$

Where ulc_i stands for unit labour costs in i and P for the price level.

We start with the analysis of annual time series for the Euro(12) Area from 1980 to 2008 and then narrow the analysis the same data to the European monetary union era for 1995-2007. We also look at quarterly series for 1999-2008. Before estimating the model, we checked unit root tests, confirming that our data for the 1980-2007 were I(1). Following the Engle-Granger two step methodology, we performed auxiliary regressions of each country variable over the euro12 series, performed unit root tests on the cointegration residuals and tested for serial correlation and heteroskedasticity. The residuals show no presence of unit roots and no autocorrelation, although there is evidence for some heteroskedasticity, in France, Germany, Greece, Ireland, Italy, Portugal, and Netherlands. This was eliminated for Greece and Portugal by adding the autoregressive lag term $d \log(\text{country}(-1))$. For the other countries, we perform heteroskedasticity consistent regressions. Table 4 gives the estimated adjustment coefficients.

The first observation is that the short term coefficient beta is in most equations more significant than the convergence coefficient alpha. The long sample (1980-2007) performs generally better than the shorter EMU samples. In the full sample, all long term alpha coefficients have the right negative sign, meaning that wage costs that drift away from the Euro average will be corrected. But this result is statistically significant in only 7 out of 12 estimates. The short term beta adjustment coefficient to Euro-ULC is relatively high and significant in 10 cases, with the exception of Greece and Portugal. In Belgium, Finland, France, Ireland, and Italy national unit labour costs are more volatile in the short run than in the Euro Area (beta exceeds 1). In countries where this coefficient is less than one, ULC increase and decrease less than in Euroland. Closer inspection shows that often higher adjustment coefficients are correlated with a higher probability that the estimate will be different from zero. We can interpret coefficients, which do not pass the t-values for statistical significance as evidence for insufficient convergence. Thus, for the period 1980-2007, unit labour costs in Germany, Austria, Luxemburg, Finland and Ireland did not have a reliable

correction mechanism, although the short run dynamics in the narrow DM-zone kept labour cost inflation below the aggregate of the Euro Area. These currencies had a long term tendency to undercut the rest of the Euro Area.

Table 4. Unit Labour Cost Convergence

Dependent variable: dLn(ulc _i)						
	sample	coefficient	constant	alpha	beta	gamma
Austria						
Yearly data	1980 - 2007	Coefficient	0.00139	-0.033824	0.648034	
		p-value	0.6502	0.3811	0.0003***	
Yearly data	1996 - 2007	Coefficient	0.001405	-0.090575	0.450038	
		p-value	0.7677	0.2843	0.0779*	
Quarterly data	1996 - 2007	Coefficient	0.001875	-0.028065	0.51889	
		p-value	0.4304	0.2252	0.0001***	
Yearly data	1996 - 2007	Coefficient	0.012305	-0.063619	0.188887	2.060663
		p-value	0.0369**	0.1855	0.4013	***0.0075
Belgium						
Yearly data	1980 - 2007	Coefficient	0.01751	-0.275524	1.028001	
		p-value	0.0002***	0.0008***	0***	
Yearly data	1996 - 2007	Coefficient	0.062972	-1.159273	2.013975	
		p-value	0.0017***	0.0014***	0.0006***	
Quarterly data	1996 - 2007	Coefficient	0.005289	-0.346354	0.730095	
		p-value	0.0066***	0.0022***	0.0007***	
Yearly data	1996 - 2007	Coefficient	0.051275	-0.867903	1.605769	0.994864
		p-value	0.0007***	0.002***	0.0009***	0.0016***
Finland						
Yearly data	1980 - 2007	Coefficient	-0.008553	-0.115155	1.133187	
		p-value	0.3911	0.4228	0.000***	
Yearly data	1996 - 2007	Coefficient	-0.032351	-0.386334	1.187239	
		p-value	0.1254	0.1386	0.0347**	
Quarterly data	1996 - 2007	Coefficient	-0.07252	-0.784393	0.431528	
		p-value	0.000***	0.000***	0.1688	
Yearly data	1996 - 2007	Coefficient	-0.029011	-0.369749	1.098659	0.152043
		p-value	0.2332	0.2122	0.0508**	0.639
France						
Yearly data	1980 - 2007	Coefficient	-0.003754	-0.093656	1.26799	
		p-value	0.0832	0.0061***	0.000***	
Yearly data	1996 - 2007	Coefficient	-0.001879	0.08307	1.11148	
		p-value	0.7235	0.7675	0.0003***	
Quarterly data	1996 - 2007	Coefficient	0.001223	-0.096588	0.795499	
		p-value	0.4272	0.1735	0.0002***	
Yearly data	1996 - 2007	Coefficient	-0.002092	0.187378	1.274286	0.969935
		p-value	0.5632	0.3343	0.0005***	0.0096***
Germany						
Yearly data	1980 - 2007	Coefficient	-0.004613	-0.073649	0.806739	
		p-value	0.1469	0.2124	0.001***	
Yearly data	1996 - 2007	Coefficient	-0.008128	0.101386	0.847688	
		p-value	0.0685	0.103	0.008***	
Quarterly data	1996 - 2007	Coefficient	-5.25E-05	-0.097594	1.213314	
		p-value	0.9919	0.1817	0.000***	
Yearly data	1996 - 2007	Coefficient	-0.006754	0.099094	0.814422	0.200801
		p-value	0.2128	0.1218	0.0116**	0.7701

	sample	coefficient	constant	alpha	beta	gamma
Greece						
Yearly data	1980 - 2007	Coefficient	0.044568	-0.098133	-0.116444	
		p-value	0.000***	0.000***	0.8162	
Yearly data	1996 - 2007	Coefficient	0.032137	-0.182085	-0.149631	
		p-value	0.0266**	0.0038**	0.8498	
Quarterly data	1996 - 2007	Coefficient	na	na	na	
		p-value	na	na	na	
Yearly data	1996 - 2007	Coefficient	0.020857	0.03814	0.044664	0.984005
		p-value	0.3094	0.7804	0.9664	0.2308
Ireland						
Yearly data	1980 - 2007	Coefficient	-0.01756	-0.12183	1.259377	
		p-value	0.2528	0.2163	0.000***	
Yearly data	1996 - 2007	Coefficient	0.055746	0.154166	-0.700336	
		p-value	0.0161**	0.1775	0.5804	
Quarterly data	1996 - 2007	Coefficient	0.005496	0.006282	1.120064	
		p-value	0.7141	0.9443	0.0298**	
Yearly data	1996 - 2007	Coefficient	0.071909	0.197904	-2.30974	1.622804
		p-value	0.0009***	0.1475	0.0318	0.0442**
Italy						
Yearly data	1980 - 2007	Coefficient	-0.001611	-0.109701	1.232764	
		p-value	0.71	0.0036***	0.000***	
Yearly data	1996 - 2007	Coefficient	-0.000911	-0.068303	1.569161	
		p-value	0.9451	0.6447	0.0812*	
Quarterly data	1996 - 2007	Coefficient	0.000152	-0.01514	1.635474	
		p-value	0.9349	0.7376	0.000***	
Yearly data	1996 - 2007	Coefficient	-0.014563	0.349996	2.611993	2.626317
		p-value	0.0753	0.1058	0.002***	0.0019***
Luxembourg						
Yearly data	1980 - 2007	Coefficient	-0.009995	-0.096884	0.8573	
		p-value	0.496	0.2509	0.0009***	
Yearly data	1996 - 2007	Coefficient	-0.014771	-0.057475	2.158944	
		p-value	0.4308	0.6441	0.0184**	
Quarterly data	1996 - 2007	Coefficient	na	na	na	
		p-value	na	na	na	
Yearly data	1996 - 2007	Coefficient	-0.030946	-0.205771	1.70682	1.380126
		p-value	0.0957	0.1265	0.0042***	0.0057***
Netherlands						
Yearly data	1980 - 2007	Coefficient	0.002502	-0.119829	0.773151	
		p-value	0.579	0.0048***	0.0001***	
Yearly data	1996 - 2007	Coefficient	-0.00071	-0.091369	1.593992	
		p-value	0.9351	0.4063	0.0546*	
Quarterly data	1996 - 2007	Coefficient	0.002895	-0.111237	1.1763	
		p-value	0.2596	0.0176**	0.0019***	
Yearly data	1996 - 2007	Coefficient	0.007577	-0.12169	0.880126	0.961448
		p-value	0.4078	0.1069	0.3147	0.0098***

	sample	coefficient	constant	alpha	beta	gamma
Portugal						
Yearly data	1980 - 2007	Coefficient	0.036619	-0.089283	0.671922	
		p-value	0.0001***	0.0022***	0.1736	
Yearly data	1996 - 2007	Coefficient	0.024717	-0.089488	0.937283	
		p-value	0.0021***	0.1293	0.0893*	
Quarterly data	1996 - 2007	Coefficient	na	na	na	
		p-value	na	na	na	
Yearly data	1996 - 2007	Coefficient	0.029205	-0.12332	1.630976	-1.107523
		p-value	0.0004***	0.0198**	0.0026***	0.09*
Spain						
Yearly data	1980 - 2007	Coefficient	0.015886	-0.045723	0.902586	
		p-value	0.000***	0.0486**	0.000***	
Yearly data	1996 - 2007	Coefficient	0.017482	-0.003921	0.599107	
		p-value	0.000***	0.7019	0.0001***	
Quarterly data	1996 - 2007	Coefficient	0.005282	-0.009221	0.310804	
		p-value	0.000***	0.649	0.0262**	
Yearly data	1996 - 2007	Coefficient	0.015161	0.005777	0.518204	0.314566
		p-value	0.000***	0.5151	0.000***	0.0028***

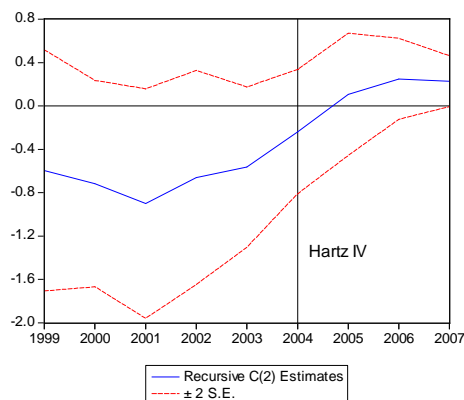
The picture changes dramatically once we reduce the same data sample to the monetary union period. Except for Belgium, all the alpha error correction coefficients become unreliable. For France, Germany and Ireland, the coefficients even take the wrong sign. This may be due to the smaller data sample of only 13 observations. We try to fix this problem in two ways. First, we check for the stability of the long sample estimation by recursively recalculating the coefficients. Second, we re-estimate the equation with quarterly data for the Euro era.

Recursive re-estimations yield stability for the error correction dynamic in Belgium and Italy, improvements in France, Greece and Portugal and a small improvement in Spain starting about two or three years ago. However, the error correction mechanism deteriorated in Finland, Austria, Germany, and most recently in Ireland, Luxemburg and the Netherlands. This is good news with respect to Spain and Portugal, two countries with the highest levels of ULC in the Euro Area. However, it is bad news with respect to Germany. Here, the error correction mechanism has moved from a negative to positive sign, meaning that the more German ULC fall below the Euro level, the more wage restraint will follow. Figure 11 shows the recursive recalculation of the error correction mechanism for Germany. Since 2001 the value has been rising, becoming even positive with the implementation of the *Hartz IV* labour market reforms. This means that Germany is accelerating its divergence from the Euroland aggregate. It has persistently undercut its neighbors' unit labour costs for a decade.

This is clearly unsustainable. There are limits how long “beggar-your-neighborhood” policies are acceptable. But the problem is not just that Germany pursued aggressive mercantilist wage policies at the expense of its European partners. *The greater issue is that, given the large weight of Germany in the Euro Area, this policy was needed to stabilize aggregate unit labour costs for the Euro Area as a whole.* In other words, because Germany keeps its costs systematically below other member states, it has prevented the European Central Bank from reacting to excessive wage inflation (i.e. above 2%) in other member states. Thus, *excessive wage pressures in the South are conditional on the un-cooperative wage cutting policies in Germany.*

Figure 11

Germany: Recursive Error Correction Coefficient



Using quarterly data improves the picture only marginally. All estimates, with the exception of Ireland, now have the right sign. Other than Belgium, we now also have Finland and the Netherlands with significant error correction coefficients. In Germany the short term reaction to Euro-wage cost developments is now also stronger, so that this may indicate a tendency in Germany to converge in the long run. However, Italy and Ireland are still on a diverging path. *Thus, if this model describes the adjustment dynamics correctly, the South will keep pulling unit labour costs up, and the North will no longer counteract.* Sooner or later the ECB will have to tighten monetary policy to contain these inflationary pressures with negative consequences for growth and employment for all.

The final regression uses annual data for 1996-2007 and adds the inflation differential between national and Euro Area consumer price inflation. Most models assume that

nominal wage bargaining takes inflation into account. What interests us here is to what degree national inflation rates affect national wage agreements. If social partners took only the euro-aggregate inflation into account, unit labour cost convergence would be facilitated, even if it may not eliminate the risk of a euro-wide wage-price spiral. The ECB has reputedly warned against so-called second round effects. Its president Jean-Claude Trichet (2008) has declared at the regular Hearing at the Economic and Monetary Affairs Committee of the European Parliament on 10 September 2008: “The Governing Council is concerned about the existence of nominal wage indexation schemes, as they involve the risk of triggering an inflationary wage-price spiral. The Governing Council calls for these schemes to be abolished.” Our final regression seeks to provide evidence to what degree these concerns are warranted. We find that the inflation differential is significant in 9 out of 12 cases; in all cases except Portugal the gamma coefficient has a positive sign and usually fairly high values. This confirms the presence of wage indexation to national inflation, rather than to EBC targets. In more cases than not does the additional variable increase the significance of the adjustment variable. Thus, *we find evidence that short term wage bargaining is primarily concerned with domestic (national) price developments and purchasing power. This leads to wage cost divergence, which is only corrected very slowly in the long run. Social partners in the different member states do not take the fact that they live in a monetary union seriously. What can be done to remedy this situation?*

II. Reforming Euroland’s wage bargaining procedures

In this section I will look at possible approaches to reform wage bargaining in the Euro Area with the purpose of accelerating convergence of unit labour costs to levels compatible with price stability and without major social tensions. I first seek to understand if the usual arguments of labour market flexibility apply to this problem. I then propose an alternative model based on theories of communicative action and then draw the conclusions for a possible reform of the Macroeconomic policy dialogue.

1. Labour market rigidity

Flexibility in the labour market has been a reoccurring subject in the assessment of European monetary union. For example the European Central Bank (ECB, 2002) has written: “Efficiently functioning labour markets are of particular importance for countries participating in Economic and Monetary Union (EMU), because these countries are unable to use country-specific monetary and exchange rate policies to address asymmetric economic shocks.” This is not under dispute. The question remains, however, whether a European labour market exists and whether having one is desirable.

In reality, there is no unified European labour market, but a multitude of national or regional markets. The optimum currency area literature used to emphasis the relatively low labour mobility in Europe compared with other federations, such as the USA. However, labour mobility is not essential if nominal wage flexibility is high. Yet, the lack of rapid cross border wage adjustment that we observed in the first part of this paper is a clear indicator that national labour markets remain fairly segregated. Is this a problem? Yes, if it prevents the convergence to European labour market equilibrium compatible with price stability. No, if this European convergence is achieved by national mechanisms.

In order to understand whether such mechanisms exist, Table 5 shows the correlation between a number of indicators, which are traditionally assumed to represent (national) labour market (in)flexibilities.¹⁰ A negative sign signals that an increase in the value of the indicator will be correlated with an increase the value of the adjustment coefficient (which typically has a negative sign). The result is surprising. Not even one of the typical labour market indicators is significantly correlated with the error correction coefficients, regardless whether we take the long sample values or the EMU period (annual data). This is true for OECD labour market indices such as collective bargaining coverage (CBC), wage centralization and coordination, facility of dismissal, Employment protection legislation (EPL) or Trade Union density. It also applies to macroeconomic variables at the national level: social security contributions as percent of GDP, the tax burden, GDP per capita, unemployment, wage shares and

¹⁰ Sources for these indicators are: OECD Employment Outlook, 2004 for labour market indicators; European Commission, Ameco 2007 for macroeconomic data; Eurobarometer 246, Feb 2006 for language skills.

their changes. There is some weak evidence that larger Trade Union density, more wage coordination and higher taxes would accelerate long term adjustment in the Euro Area. However, more significant are proxies for an open society. The sign for the population variable is positive, signaling that the larger a country is, the less it is concerned with adjusting its wages to the developments in other countries. This is even more strongly documented by indicators for the percentage of people speaking no, one, two or three foreign languages or English: a high percentage of only native speakers does not facilitate wage convergence, speaking many languages does. The percentage of people speaking three foreign languages or more is the only truly significant variable. This result points in an interesting direction: *rather than focusing on the instrumental rationality of institutional reforms in European labour markets, better results may be obtained by improving the communicative processes in European wage bargaining.*

Table 5. Covariance Analysis of labour market indicators

	COEFFICIENT80		COEFFICIENT95	
	Correlation	Probability	Correlation	Probability
CBC	-0.206809	0.5934	-0.424059	0.2553
CENTRALIZATION	-0.01916	0.961	-0.237473	0.5384
COORDINATION	-0.36896	0.3285	-0.522726	0.1488
SUMDISMISSAL	-0.313238	0.4118	-0.274216	0.4752
SOCIALSECURITY2005	0.050031	0.8983	0.186088	0.6317
TAXBURDEN2005	-0.502463	0.168	-0.538872	0.1344
GDPPC2007	-0.23277	0.5467	-0.257341	0.5038
POP2008	0.288254	0.4519	0.536834	0.1362
TU DENSITY	-0.481873	0.189	-0.674044	0.0465
UNEM1999	-0.049902	0.8986	-0.020633	0.958
UNEMP2008	-0.020481	0.9583	-0.003709	0.9924
DUNEMPLOYMENT	0.048594	0.9012	0.023655	0.9518
WAGESHARE07	-0.184498	0.6346	-0.22346	0.5633
WAGESHARE96	0.064881	0.8683	-0.209855	0.5879
DWAGESHARE	-0.259325	0.5004	0.002867	0.9942
EPL1	0.223765	0.5627	0.284489	0.4581
EPL2	0.142132	0.7153	0.217613	0.5738
NOLANG	0.400375	0.2856	0.369438	0.3278
ENGLISH	-0.281978	0.4623	-0.280894	0.4641
1LANG	-0.400375	0.2856	-0.369438	0.3278
2LANG	-0.645395	0.0605	-0.624282	0.0723
3LANG	-0.787848	0.0117	-0.857102	0.0031
COEF80	1	-----	0.901148	0.0009

2. Wage bargaining and social action

Bargaining is often seen as a behavior where individuals try to maximize their utility, given certain constraints. The utility is derived from their objectives and preferences,

which are assumed as given, and the constraints may be limited resources, institutions or the intentions of some other party. Although this is not entirely wrong, it is important to see wage bargaining as an interactive process, a form of social action, whereby an actor can only realize his intentions if he takes into account the actions of other agents in his environment. The interactions between two or more agents may be conflictual or motivated by common interest, but the point is that one cannot perceive wage bargaining as an isolated instrumental action where means are applied to achieve given ends.

This fact highlights an important role for communication. Communication is aimed at achieving an understanding. In the wage negotiating process, communication takes place directly when bargaining parties give consideration to the arguments and claims made by the other side, or when they respect norms that have general validity. Unit labour costs are the result of negotiations between management and workers or employers and Trade Unions for nominal wages. Obviously, each party has the strategic interest “to get as much as they can” and in this respect they follow a purposive/instrumental rationality.¹¹ However, there is also a communicative dimension to their interaction. In the process of negotiation, actors assert certain facts, request the other party to do certain acts and express the intention to perform specific actions. When they agree on the truth of these facts, recognize their mutual requests as legitimate and sincerely commit to a course of action, the negotiation is settled. Habermas (1981) calls this communicative rationality. The path to and the outcome of the agreement depends on the iterative exchange of arguments about the validity of mutual claims. These claims reflect concerns of justice and efficiency, and they are about factors such as productivity, inflation, growth and employment. Because the claims are recognized as valid *in the given environment*, a successful wage settlement binds negotiating partners through implicit and explicit contracts that allow them to plan joint strategies and commits them to performing certain agreed actions. The partners are then accountable to each other for implementing the agreement.

A settlement realizes one particular commitment to a course of action out of a range of possible solutions. Which one is picked depends on the negotiating process itself,

¹¹ *Zweckrationalität* according to Max Weber.

i.e. the strength of the validity of mutual claims. This path dependency implies that each potential settlement in the range of possible solutions is Pareto-optimal if we assume that the settlement will only be acceptable – and binding – as long as no negotiating party is made worse off. Wage bargaining has therefore been described as a conflictual cooperative game.¹² Furthermore, because the results of national wage bargains *directly* affect firms and workers committed to these agreements, and make both sides accountable to each other, the negotiated settlement must be seen as a *local equilibrium* that is embedded in a broader context of economic facts and constrained by the negotiating process itself. Whether these broader facts and arguments are taken into consideration by the negotiating parties depends on the institutional form of deliberation that leads to the negotiated settlement.

We noted that national wage settlements in monetary union have external effects through the aggregate level of unit labour costs, which *indirectly* affect the whole Euro-economy by driving price stability and soliciting monetary policy reactions. In other words, the outcome of national wage developments is affected by wage negotiations in other countries even if the negotiators do not take this into account. These cross-border effects create strategic complementarities between different wage settlements.¹³ It is well known that due to asymmetric information, strategic complementarities may lead to multiple equilibria. These multiple equilibria can be ranked according to some welfare criteria, but there is no mechanism that ensures the realization of the highest option. Under these circumstances the literature has argued that institutions, i.e. laws, informal rules, and conventions that give a durable structure to social interactions (Bowles, 2004: 47), may assure that the welfare maximizing Pareto equilibrium is attained. In Europe, legal and organizational wage bargaining institutions exist at the national level, but they are weak at the European level. The 2005 Spring European Council has formulated Guidelines (European Commission, 2005) for wage bargaining that may be interpreted as describing how to reach a welfare maximizing Pareto-optimum. But they have no binding force and we have seen in the empirical analysis above that the actual outcomes are far from this

¹² The cooperation – non-cooperation dimension relates to whether the contracts are enforceable without costs, the conflict – common interest dimension relates to the number of Pareto-efficient equilibria (only one being common interest, many being conflictual). See Bowles 2004

¹³ A strategic complementarity exists, if the second cross-derivative of the utility function is positive. i.e. if the wage settlement increases the marginal utility of one group, it will also increase the marginal utility of our own group (ideally of all other groups). Cooper and John, 1988.

benchmark. Fact is that wage negotiating parties settle on the best available solution, given what the other side is offering in the national context in which they operate. These local Nash equilibria do not sufficiently take into account the externalities from other national settlements. Hence, there is a high likelihood that the realizations of national wages settlements are not optimal from the welfare point of view of European citizens.

The creation of constraining wage institutions at the European level, whether labour laws or negotiating bodies, is neither realistic nor even desirable. For one, it is clear that a negotiated settlement will only hold and be binding if both parties accept it as legitimate. Centralizing more policy decisions without addressing the related legitimacy issue would increase the citizens' disenchantment with Europe that has been rampant for years. What is needed is a policy approach that combines legitimacy with efficiency.

From a utilitarian-instrumentalist point of view, there is no need for legitimacy considerations. People are assumed to have exogenously given preferences, from which their interests are derived, and in the process of negotiating they are will compromise in order to find a solution to their conflicts of interest. They are willing to trade off part of their preferred solution in order to get something (*do ut des*), but the underlying interest structure of the interaction does not change (Heath, 2001:252). However, preferences are not entirely fixed and exogenous. Even if we admit a stable utility function with diminishing returns, say for apples, it is clear that my interest in and commitment to eating my first apple is not the same as that for eating my 10th apple. If, however, the utility function shifts because of the actions of some other party (this is the strategic complementarity), it is no longer justifiable to assume given preferences other than in a comparative-static analytical framework. We then need a foundational theory for preferences.

At this point it is useful to remember that utility does not reside in the objects of desire. It is a property ascribed to goods that corresponds to the intentional mind states of individuals and these mind states need explaining. I have sketched out elsewhere a theory of preference formation based on what I call theory of stochastic

consensus (Collignon, 2003). It explains how naturalistically given desires¹⁴ are transformed into preferences through a process of rational deliberation (Rawl's reflective equilibrium) and social communication on the background of bounded rationality. The relevance of this work for our discussion of wage bargaining is two-fold. First, it claims that collective preferences represent a theoretical equilibrium where all individuals take directly and indirectly into account the claims and arguments made by all other individuals in society with respect to a specific course of action. To these arguments weights are assigned, which come out of the deliberation in which the truth of the relevant facts, the rightness of claims and the sincerity of actors are assessed. In other words, preferences and the derived utility functions are the consequence of a process of deliberation and communication. Second, the structure of communication matters. Within a large society specific groups have tighter networks of communication amongst themselves than between each other.¹⁵ Information circulates therefore faster and more extensively within these groups. If group members hold their own views as more important than those of the members in other groups, they will rapidly converge to a commonly shared set of group preferences. These group preferences are represented by the local equilibria in wage settlements. Only as the information spills over through thin links of trust and *communication between the groups* will they influence each other. Over time a gradual convergence of these local equilibria to a general equilibrium will take place and the final consensus on preference assessments in society will take considerably longer than in the narrow community. Hence, the existences of semi-closed groups within a larger society will bring forth well-identifiable group preferences and simultaneously also a long term tendency to make them disappear again, and in the limit they will merge in some form of "general will".

This model is useful for our understanding of wage bargaining in the European Union. The existence of national labour market institutions shapes the dense deliberation and communication in national contexts, so that wage settlements reflect consensual local equilibria. Arguments dominating national debates have high prevalence, notably national inflation rates. These national equilibria are qualitatively different from the equilibrium that would emerge as the European "general will" if all

¹⁴ Naturalistic desires are desires that are only conditioned by context.

¹⁵ This can be modeled as in the Simon and Ando (1961) model of Nearly Completely Decomposable System.

individuals would give due consideration to the arguments in other negotiating communities. From a welfare point of view these national equilibria are suboptimal because the external consequences have not been integrated into the settlement. Thus, for example, Northern wage restraint reinforces loss of competitiveness in the South, and Southern wage increases force monetary policy to remain tight. European Guidelines for wage bargaining have not been able to solve this dilemma, because parties to national wage agreements are held accountable by the groups which have accepted and which are bound by agreements made by national negotiators. But because of the segregated structure of wage negotiations, the “general will” has not yet emerged as the generally accepted consensus, and there can be no European norms with binding force. This is different from wage bargaining in a nation state framework because national negotiators are exposed to the broader policy debate, which goes on in the media, in Parliament, and across local communities. Hence a European wage settlement that would be optimal from the point of view of welfare ranking, necessarily implying consistency with price stability and high employment, is not achievable. What would be needed is a mechanism that Europeanizes the deliberation about appropriate wage increases and makes wage negotiations subject to cross border claims, and to commitments to which they are held accountable by a European constituency.

Reforming the Macroeconomic Dialogue

The European Macroeconomic Dialogue has formulated normative guidelines for wage bargainers in member states. Not surprisingly, they are not respected. They lack the binding force that only comes with full legitimacy. I will now argue that the only way to improve on Europe’s macroeconomic policies is to integrate the European level into the deliberation on national wage policies.

A first approach is to change the negotiating framework for firms and industries. An increasing number of companies are nowadays operating in the single European market. It could be envisaged to firms-specific European wage negotiations with differentiated cross-border contracts that take into account local as well as European conditions of productivity, standards of living, working conditions etc. This would broaden the constituency for wage negotiations beyond national borders. Policy

deliberations would take into account arguments in different member states and firms. Management would become accountable to a European constituency.

Second, with European monetary union a number of policy coordination tools have come into existence. The Stability and Growth Pact covers fiscal policy; the Broad Economic Policy Guidelines are a document originally drafted by the European Commission but then pruned by member states. They formulate the lowest common denominator between national governments. Their value lies in obliging national administrations to broaden their nationalist horizons and take into consideration the declarations by other member states. However, they have little binding power for policy makers and hardly any impact on policy preference formation of the public at large. Hence none is responsible and accountable for implementing them.

The Cologne European Council in 1999 set up the Macroeconomic Dialogue (MED), as the third pillar of a broader European Employment Pact. It was intended “to improve the conditions for a cooperative macro-economic policy mix geared to growth and employment while maintaining price stability” (Koll, 2005). The idea was to get social partners to agree and coordinate their wage settlements with monetary and fiscal policy in order to ensure high growth and employment creation. Based on economic ideas laid out by Collignon (1999) and Koll (2005), the MED sought to introduce wage and income policies into the tools box of macroeconomic policy. But due to resistance by the UK government, the notion of wage policies was banned from public documents and the European Central Bank, careful to preserve its independence, only agreed to “cooperate” without committing to *ex ante* coordination. The weak political will translated into an institution that imposed few constraints and favored *confidential* exchanges of policy information. As the German presidency put it, “in a macroeconomic dialogue, based on mutual trust, information and opinions should be exchanged in an appropriate manner concerning the question of how to design macroeconomic policy in order to increase and make full use of the potential for growth and employment” (Bulletin 1999; Issue 49: 520, No. 2 and 5). Technically this is achieved in a two level process: first, national monetary and fiscal authorities meet with national social partners, then peak organizations of social partners meet with the ECB and ECOFIN.

Table 6.: Participants of the Macroeconomic Dialogue and their level of activity in the European Monetary Union and the EU (*without EU-COM*)¹⁶

	Monetary Policy	Fiscal Policy	Wage Setting
EMU or EU respectively	European Central Bank	<i>ECOFIN Council// Eurogroup</i>	<i>European Peak Organisations (UNICE, CEEP, ETUC)</i>
National Level	Central Banks of Non-EMU countries	National Legislator, enacting budget laws	National Social Partner Organisations, decentral wage agreements

Our analysis above has shown evidence that the aggregate wage developments have contributed to price stability in the Euro Area and it is possible that this was supported by the existence of the Macroeconomic Dialogue. However, there is very strong evidence that few member states have followed the Broad Economic Policy Guidelines (European Commission, 2005), which have come out of the process: national wages have not increased in accordance with the formula¹⁷ $\Delta w = \pi + \lambda$. The reason, we have argued, is that wage setters take into account arguments about national rather than European inflation and that they are accountable to national audiences and not to a European constituency. Partly, this is intrinsic to the nature of negotiating national wage contracts. But it is also true that the confidential nature of these policy deliberations prevents actual wage bargainers to refer to European norms as negotiating constraints, because these norms are only known to a small group of insiders. In order to Europeanize the wage bargaining process, it would be necessary to open the MED up and have a broad general debate about appropriate wage policies.

This leads us to propose a simple reform of the Macroeconomic Dialogue. This dialogue should be conducted publicly and be submitted to permanent public scrutiny. The European Central Bank has a genuine interest in such a process, but they are one of the actors in the larger game. It can contribute to the debate, but Europe needs a

¹⁶ Source: Koll, 2005

¹⁷ With w for the log of wages, π the inflation target of the ECB (2%) and λ growth of trend productivity

forum where such debate can take place. By definition national governments or parliaments cannot represent European interest. The only public sphere that exists in Europe for such purposes is the European Parliament. Hence, the Macroeconomic Dialogue should be taken away from the European Council and be given to the European Parliament. Given that the Committee on Economic and Monetary Affairs auditions the President of the European Central Bank five times a year, it would be appropriate that it invites and listens to European Social Partners prior to these auditions and then makes recommendations, which integrate monetary, fiscal and wage policies in the interest of the objectives of the European Union and Euroland.

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