THE EURO AT TEN ACHIEVEMENTS AND CHALLENGES

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Introduction

In this lecture I discuss the achievements and the challenges of the Eurozone. I concentrate on the following issues. First, I analyze the record with respect to inflation (sections 1 and 2). Second, I discuss the degree of price transparency in the eurozone. Next I analyze the extent to which monetary union has promoted faster economic growth. Fourth, I study the challenges that arise from the increasing divergences of wages and prices within the Eurozone. I conclude with a discussion of the governance of the eurozone and the political issues to which this leads.

1. Low inflation despite lack of monetary control

There can be little doubt that despite the acceleration of inflation during the last year (2008) the inflation record in the Eurozone has been outstanding as figure 1 illustrates. True other industrialized countries have experienced similar successes. Yet it remains an achievement for a new central bank, the ECB, to have established a strong low inflation reputation in such a short time span.

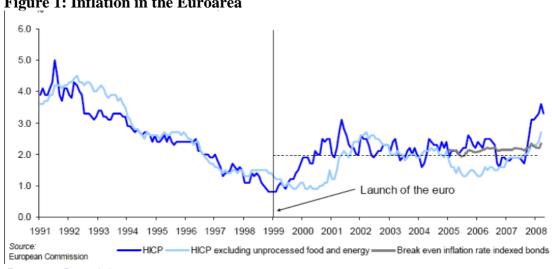


Figure 1: Inflation in the Euroarea

European Commission

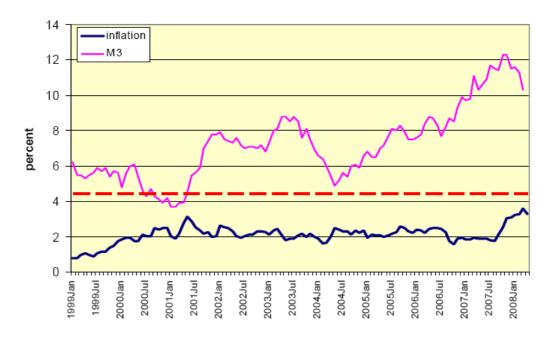
EMU@10: successes and challenges after 10 years of Economic and Monetary Union

The surprising aspect of this development is that when it started, the ECB made it clear that it wanted to achieve price stability by controlling the money stock (M3). In this it was very much influenced by the monetarist dictum from Milton Friedman saying that "inflation is always and everywhere a monetary phenomenon". Thus in

order to control inflation it was imperative to control the growth rate of the money stock. This was the so-called first pillar in the monetary policy strategy that the ECB set out right from the start of its operations (see ECB, Monthly Report, 1998). Using the quantity theory the ECB-strategist computed the growth rate of M3 that was compatible with an inflation target of 2%. This turned out to be 4.5% (given the assumption of long run real growth rate of 2% and a declining velocity of 0.5% per year. Failure to keep the growth rate of M3 below 4.5% would inevitably lead to and inflation rate exceeding 2%.

How successful was this monetarist strategy. Sometimes a picture is worth one thousand words. I show the picture in figure 2. I observe that apart from a very brief period in 2000-01 M3 growth has permanently exceeded the reference value of 4.5% and by far. The average yearly growth rate of M3 was 7.2% while inflation amounted to 2.1% a year (see table 1). Thus it appears that the ECB monetary strategy which consisted in keeping inflation low by controlling the growth rate of the money stock failed dismally. The troubleshooter was velocity which declined on average by more than 3% per year.

Figure 2
Inflation and money growh (M3) in eurozone



Source: European Central Bank, Monthly Bulletin

Table 1: average yearly growth rates in the eurozone (1999-2007)

Mean growth rate M3:	7.2%
Mean inflation rate:	2.1%
Mean growth rate output:	2.0%
Velocity growth	-3.1%

Source; ECB, Monthly Bulletin

What do we learn from this? First, the ECB completely failed in its announced strategy to control inflation via monetary control. Second, it tells us much about the signaling power of money growth in the Eurozone. And this is that M3 has had almost no power in predicting future inflation in the Eurozone since 1999.

The question that arises next is why money growth has no information value for future inflation. The answer is that in a low inflation environment the noise to signal ratio of money growth is very high, i.e. most of the variability of money stock numbers is noise and is unrelated to inflationary dynamics. Most of the noise comes from large portfolio effects and financial innovation. For example, the spectacular increase in M3 observed after 2005 is the result of a massive expansion of the banks' balance sheets. This did not really increase liquidity (in the sense of means of payments in the system). In order to understand why this is so we have to go back to the basics of money and liquidity.

Banks create liquidity because they borrow short and lend long. In so doing, they become less liquid themselves. This creates the possibility for others (the non-banking sector) to become more liquid. But if banks were to add assets and liabilities of the same maturities to their balance sheets, there would be no liquidity creation. Thus, it is not sufficient to look at the growth rate of the banks' liabilities to find out how large liquidity creation has been. Since M3 consists mainly of banks' liabilities, a 10 per cent increase in M3 may tell us nothing about liquidity creation.

In the past, when banks exerted their traditional roles of borrowing short and lending long, the trends in the banks' liabilities gave us a reliable picture of liquidity creation. Financial innovations have changed the banking landscape, though.

First, many banks have restructured their assets. An important feature of this restructuring is that they have transformed relatively illiquid assets, such as mortgages, into asset-backed securities that can easily be traded and are thus more liquid. By becoming more liquid themselves, banks create less liquidity.

Second, banks did the opposite on the liabilities side. They increasingly issued debt securities at the expense of traditional deposits. As a result, the maturity structure of the banks' liabilities lengthened.

The upshot of these two trends is that banks borrow less short and invest less long. Thus the spectacular increase in M3 may not at all be a signal of too much liquidity creation. It may reflect the new activities of banks, which have been issuing longer-maturity liabilities backed by shorter-maturity assets. Banks are now less in the business of liquidity creation than they used to.

If this interpretation is correct, the ECB should not worry that the strong increase in M3 is a signal of inflation to come. It only reflects the expanding business of banks, which adds little to liquidity.

This conclusion may surprise. Is the world not drowning in a pool of liquidity? Yes, but this has happened outside the traditional banks. Other institutions, hedge funds, investment banks and special conduits in which banks have parked their illiquid assets so as to circumvent regulations, have been responsible for liquidity creation recently. They have done this in ways mirroring the changes observed in the banking sector.

Much of what these institutions and special conduits do is searching for "alpha", ie investment opportunities in unexplored niches. These are typically very illiquid investments. In contrast, the liabilities of these institutions have a more liquid character. As a result, they have become an important source of liquidity creation in the world which occurs outside the balance sheets of the traditional banks.

Should the ECB worry about these developments? Yes and no. Yes, because it is systematically watching the wrong indicator (M3) of the trends in liquidity. As a result, it gets the wrong signals about future inflation most of the time.

No, because the liquidity creation by the non-bank financial institutions does not increase the price of the things we buy in the grocery stores. Thus, there is no need for an inflation-targeting central bank to monitor what these institutions are doing.

There is a snag, though. When these institutions create liquidity, this is used to buy assets. Thus, hedge funds, investment banks and special off-balance sheet conduits of the banks create inflation not in the grocery stores but in asset markets. A central bank that cares about more than just prices in the stores may want to worry about these developments, because asset inflation can lead to bubbles and crashes.

Asset bubbles create optimism and euphoria, stimulating economic activity. The crashes that follow can lead to pessimism and downturns in economic activity. Thus, a central bank that, besides inflation, also cares about economic stability may want to monitor the activities of these non-bank financial institutions creating liquidity. There is an additional reason why the central bank should care. This is that a large part of the sort-term liabilities of these non-banks are in fact short-term credit provided by the traditional banks. Thus when the non-bank financial institutions get into trouble the traditional banks also do. Since the central bank is the lender of last resort for the banks it will be affected by what happens with the non-bank financial institutions.

I conclude that using M3 as an indicator of future inflation is a bad idea. Using it as a signal of emerging bubbles in the asset markets is a good idea provided it is seconded by other indicators such as total credit and asset prices. In this way the ECB could develop a two pillar approach. The first pillar would be based on inflation targeting as it is now practiced in many central banks. The second pillar would consist of a monitoring system of asset inflation, signalling to the ECB of incipient bubbles in asset markets. This signal may then also be used to guide interest rate policies

2. The introduction of the euro and perceived price increases

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A major surprise about the introduction of the euro is its unpopularity in a number of eurozone countries. Especially in Italy, but also in Germany and Greece, the introduction of the euro is associated with massive price increases. The ECB has generally denied the existence of the phenomenon. There is evidence, however, that at the time of the introduction of euro banknotes prices of goods and services that are bought frequently have increased significantly. I show some evidence in table 2.

Table 2

Table 1: Price increases of food products (from Nov 2001 to Nov 2002)				
Breakfast (bread, snacks)	23,3%			
Pasta, bread, rice	20,1%			
Beverages	32,9%			
Meat, eggs and fresh fish	22,1%			
Cold cuts	27,5%			
Canned food	30,9%			
Fruit and vegetables	50,8%			
Frozenfood	23,6%			
Total	29,2%			

Source: Italian Consumer Organization

Thus it appears that a number of products that are bought almost daily and for which the price elasticity is generally low, the introduction of the euro has been used to raise prices. The mechanism that could have triggered this is the following. Since these products have a low price elasticity there is a potential for the sellers to exploit this. However, these products are typically sold in highly competitive markets. As a result, one seller can typically not expoit this profit opportunity without losing business. The introdiuction of the euro created a window of opportunity whereby the sellers could all raise their prices together.

All this has left a legacy of unpopularity of the euro, and a perception of high inflation. It is remarkable that since 2002 the perception of inflation in the eurozone has systematically been higher than the official inflation as shown in figure 3

percentage y-o-y % change Euro area balance 75 Euro cash changeover 60 4.0 45 3.0 30 2.0 15 1.0 0 0.0 -15 1998 2000 2002 2004 2006 2008 1996 Euro area Actual HICP inflation (lhs) Euro area Inflation perceptions (rhs) Source: European Commission.

Figure 3

3. The promise of price transparency

The introduction of the euro, we were told, would lead to more price transparency, i.e. consumers who now can see prices in the same currency unit would be better able to make price comparisons, and to shop around. This in turn would increase competition. In the end this would benefit all consumers who will face the same lower prices. How much of this price transparency promise came out? Not much ascan be seen from figure 4. This shows the mean standard deviation of prices of a sample of 173

identical products across the Eurozone from 1990 to 2005. The study was performed by Wolszczak-Derlacz(2006). The study finds no evidence for price convergence in the Eurozone. The remarkable observation is that price convergence occurred prior to 1999 (mostly in the early 1990s)¹. Since the start of the Eurozone, price convergence has stopped.² This phenomenon has also been observed by the European Commission (see European Commission (2004*a*)).

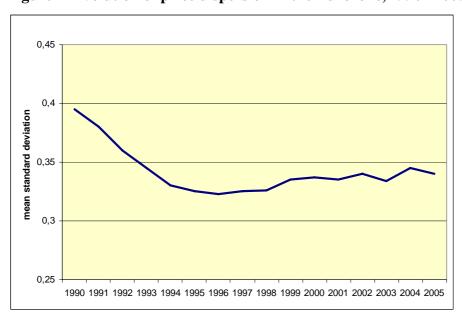


Figure 4 Evolution of price dispersion in the Eurozone, 1990-2005

Source: Wolszczak-Derlacz (2006).

Why does the introduction of the euro appear to be a weak force in bringing about price convergence? The price differentials for retail products are likely to be the result of inefficiencies at the retail level, where transaction costs are high. With or without the euro it remains very costly for individual consumers living in, say, Paris to make a trip to Berlin so as to profit from a price advantage for some (not all) groceries. Such arbitrage remains prohibitive in the Eurozone. But why then do we observe almost no price differentials for supermarket products within the same countries? The answer is that the retail business is still very much segmented nationally. In most countries a few supermarket chains dominate the whole market. They conduct national

¹ This is also found by Engel and Rogers(2004).

² The slight increase in dispersion observed after 1999 is too small to be statistically significant.

commercial and advertising campaigns, setting prices for the whole national market. Part of the reason is that most of these supermarket chains are still very much national companies. The other part has to do with different regulations, customs, languages, and cultures. It is doubtful that the euro will overcome all this very soon.

4. The promise of high growth

"One market, one money", the famous report issued by the European Commission in the early 1990s, made an analysis of the economic growth effects of a monetary union. Using insights from the so-called new growth theory it formulated a very optimistic conclusion about the future growth that would be possible in the monetary union. How much of this promise has come through? Not much really. Let's look at figure 5. I compare the growth rate in the euro area before and after 1999. I also compare it with growth rates in other industrialized countries before and after 1999. The impression we get is that there is very little evidence that the euro has boosted growth as was promised. On the other hand there is also no evidence that it has contributed to a lower growth performance. This is in a way is very comforting because it confirms that in the long run money and monetary institutions do not matter for real things such as economic growth.

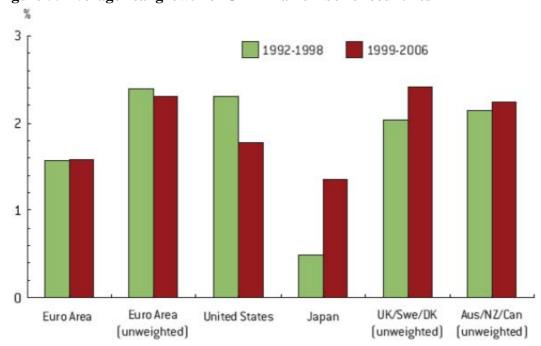


Figure 5: Average real growth of GDP in a number of countries

Source: Bruegel, Coming of Age, Report on the Euro Area

It is also surprising to find that there is very little evidence of a superior growth performance of US versus Eurozone. Yet the perception today is still very strong that US has performed better, and that this is due to greater flexibility of markets in the US. This is now repeated so often that it has become an act of faith. Yet the evidence is very flimsy. In order to illustrate this, I compare an index of market rigidities with productivity growth performances of OECD countries.

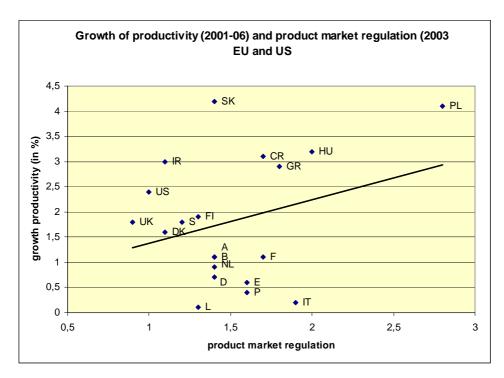
The OECD has constructed an index of product market regulation. I will use this here as our index of market rigidities. This index synthesizes different indicators of product market regulations (e.g. price regulations, barriers to entry, protectionist measures, etc.). I show the index computed for the year 2003 together with the average productivity growth during 2001-06 in figure 6. On the horizontal axis the index of product market regulation (PMR-index) is shown. The higher the index the more regulated are the product markets of the country in question. On the vertical axis I present the average growth rate of labour productivity during 2001-06.

The most striking feature of this figure is that the index of product market regulations does not seem to have any power in predicting the wide divergence in productivity growth developments. In fact it seems to predict the sign wrongly. A simple regression analysis reveals that the sign of the PMR-index is positive, predicting that countries with higher product market regulations have higher productivity growth (see table 3). Since the coefficient is not statistically different from zero the correct conclusion at this stage is that the PMR-index has no significant effect on productivity growth.

The previous analysis suffers from a potential bias due to the omission of an important explanatory variable, i.e. the initial level of per capita GDP. Countries with a low level of economic development (low GDP-per capita) tend to have a lot of product market regulations. They nevertheless grow fast because they are in the catchup phase of economic development. Thus the PMR-index correlates with the omitted variable, GDP per capita. I therefore ran a regression adding the initial level of per capita GDP as an explanatory variable. The results are shown in table 3. I observe that the PMR-index now has the correct sign but that it is not statistically significant. In contrast, the initial level of per capita GDP (YCAP) has a strongly significant effect. In addition, adding this variable to the regression equation dramatically

increases its overall explanatory power (the R² is raised from 0.08 to 0.52). I obtain a similar result when I use a dummy for transition economies instead if the initial per capita income (see last column of table 3).

Figure 6



Source: for the PMR-index: Conway, Janod and Nicoletti (2005) and for the productivity growth:

http://ec.europa.eu/economy_finance/indicators/annual_macro_economic_database/ameco_applet.htm

Table 3: Regression results: dependent variable productivity growth

	(1)	(2)	(3)
constant	0.73 (0.69)	18.70 (5.48)	2.74 (4.68)
PMR	0.75 (1.10)	-1.34 (-2.32)	-1.02 (-2.49)
GDP CAP		-3.30 (-5.37)	
TRANSITION			3.20 (7.56)
R-squared	0.063	0.653	0.79

I conclude that the widely different levels of product market regulations across countries have very little power in predicting the different productivity growth experiences of the same countries³.

5. Asymmetric shocks and divergencies in the Eurozone

One of the surprises of the functioning of the Eurozone has been the extent to which the competitive positions of the Eurozone countries have diverged. I show the real effective exchange rates in the Eurozone (based on unit labour costs) since 1998 in figure 5. The striking fact is the extent to which the relative unit labour costs have tended to diverge. As a result of these trends, some countries (Portugal, Netherlands, Spain and Italy) have lost a significant amount of price and wage competitiveness. Others, like Germany and Austria have gained a significant amount of price and wage competitiveness⁴.

There can be no doubt that part of these divergent developments in prices and wages are the result of divergent national wage policies. Since 1999, Germany has followed a tight policy of wage moderation. I show some evidence in figure 6. This presents the yearly nominal wage increases in Germany and in the rest of the Eurozone (excluding Germany). I observe the strong decline of nominal wage increases in Germany. The rest of the Eurozone maintained more or less constant wage increases around 3% per year. Thus, each year Germany tended to improve its competitive position vis a vis the rest of the Eurozone. The contrast between Germany on the one hand, and the UK and the US on the other, is even stronger. The latter allowed their wages to increase by 4 or 5% per year.

This German policy of wage moderation has not been without consequences for the other Eurozone countries which have seen their competitive positions deteriorate thanks to these German wage policies. Thus the latter have worked as "beggar-thyneighbor" policies forcing other countries in turn to also institute drastic policies of

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³ A similar result was obtained by Griffith, Harrison and Simpson (2006).

⁴ It could be argued that these trends may also be the result of different initial levels of per capita income so that they reflect a catch-up process (Balassa-Samuelson effect). Since the real effective exchange rates shown here are based on unit labour costs they take into account differences in productivity growth.

wage moderation⁵. In this sense one can conclude that there has been a coordination failure in the eurozone. There can be no doubt that this had led to a major asymmetric shock that will have to be corrected.

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Figure 7: Intra-euro area real effective exchange rates (based on ULC)

Source: European Commission

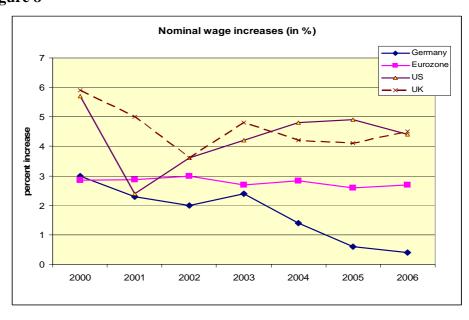


Figure 8

Source: European Commission, Statistical Annex to the European Economy

⁵ For a similar analysis in the context of the EMS, see Blanchard and Fitoussi(1992).

The correction mechanism is likely to be painful. Other countries will be forced to intensify their policies of wage moderation, inducing the former again to restrict wage increases. All this is adding to deflationary tendencies characterized by low growth in consumption and investment and by increasing unemployment.

The divergent movements of competitive positions within the Eurozone are not only the result of German wage policies but also of the different speeds in the structural reform process in the member countries. The process of structural reforms (labour market reforms, liberalization of output markets) has remained a strictly national affair. Some countries, e.g. the Netherlands and Spain have gone some way in deregulating employment protection systems, while other countries, e.g. France and Italy have a long way to go. These divergent movements have much to do with differences in national political systems. They generate a potential for divergent movements in employment and output (asymmetric shocks) within the Eurozone which will necessitate adjustments in the future. As these are likely to be painful, they are bound to lead to tensions in a monetary union.

6. The institutional weakness of the present Eurozone Governance: the Stability Pact

The present institutional design of the Eurozone exhivit some weaknesses. These weaknesses manifest themselves both at the level of fiscal policies as at the level of monetary policies.

The Stability and Growth Pact (SGP) is seen as the cornerstone of the governance of fiscal policies in the Eurozone. The proponents of this view see the SGP as the necessary fiscal framework providing long run sustainability of national fiscal policies. In so doing, the SGP makes a stability oriented monetary policy of the ECB possible while at the same time providing sufficient flexibility for national budgetary authorities to accommodate for asymmetric shocks.

The SGP, however, is built on a weak institutional foundation. The reason is the following. As argued earlier, spending and taxation are still very much the responsibility of national governments and parliaments. That is also the level at which democratic legitimacy is vested. As a result, these spending and taxation decisions are

backed by an elaborate process that is deeply embedded in national democratic institutions.

The SGP now imposes top down an extensive control and sanctioning system on the net effect (budget deficit) of this democratic decision making process by institutions that are perceived to lack the same democratic legitimacy. Lawyers will undoubtedly object that the SGP is the result of a Treaty that has been ratified by the same democratic institutions, the national parliaments, so that it has the same legitimacy as the national parliaments. This is undoubtedly true from a legal point of view. It is not from a political point of view.

When the Commission starts an excessive deficit procedure which aims at forcing national governments to cut spending and/or increase taxes, it bears no political responsibility for these decisions. In fact, the national governments do. When these follow up on the Commission's procedure and cut spending and raise taxes they are the ones who will be judged by their national electorates, and who face the threat of being punished by the voters at home. In contrast, the European Commission at no time faces the prospect of being voted away. Thus from a political point of view, the European Commission, which initiates the control and sanctioning procedure of the SGP, lacks democratic legitimacy, because there is no mechanism to make the Commission accountable before an electorate for its actions.

This lack of accountability of the Commission makes the SGP unsustainable. Each time a conflict arises between the Commission and the national governments, the former is bound to loose. This is also what has happened in November 2003 when France and Germany disregarded the SGP. It will happen again when conflicts arise between the Commission and the national governments. Thus, it can be concluded that the SGP is a fragile institutional construction that is unlikely to lead to its objective.

This problem will continue to exist as long as the nation-states maintain their sovereignty over spending and taxation, and as long as those who decide about spending and taxation are made accountable for decisions before a national electorate.

A similar institutional weakness exists at the level of monetary policies. The Maastricht Treaty has defined the objectives of the ECB. The primary objective is

price stability. The Treaty, however, adds that if price stability is not at risk, the ECB should pursue other objectives, in particular, sustaining economic activity.

The ECB has filled out the fine print of its mandate by essentially dropping the requirement that it should pursue other objectives than price stability. It has done so using the monetarist-real-business-cycle theory and claiming that by focusing on price stability it automatically guarantees that the other objectives mandated in the Treaty are fulfilled.

In addition, the ECB has given a practical content to the objective of price stability by defining this as a rate of inflation below (but close to) 2%. Without asking permission, the ECB has absolved itself from any responsibility about unemployment. It has relegated this responsibility to the national governments. It has done this using the wisdom of an academic theory, the empirical evidence for which is still being debated. As a result the rest of society is not convinced and will not easily accept the attempt of the ECB to extricate itself from any responsibility about unemployment.

In addition, by relegating the responsibility of unemployment to the national governments it creates a political problem that is similar to the problem identified with the SGP. If national politicians have to bear the sole responsibility for unemployment, it is only natural that they will want to use all available instruments to fight unemployment. The claim that all they have to do is to introduce "structural reforms" (whatever that means) will not solve the problem because there is more to unemployment than the structural component. The lack of instruments, both monetary and budgetary, to fight the cyclical component of unemployment will lead national politicians to the temptation to use these instruments because these politicians will be made accountable before national electorates when they fail to lower unemployment. One cannot maintain a political system where national politicians are made fully responsible for unemployment while key instruments to deal with this problem have been taken away from them, and are held by those who do not want to be made accountable for this problem.

The conclusion is that either one gives those who are bearing the burden of political accountability for unemployment the full panoply of economic instruments, or one transfers at least part of the political accountability for this problem to European institutions, including the ECB.

7. On the need for further political integration

In the preceding section I have argued that there is a problem of governance in the Eurosystem. This problem of governance has two different dimensions. First, important instruments of macroeconomic policy (monetary policy and the management of the government debt and deficits) have been transferred to European institutions. However, the political accountability for the results of the decisions taken in these fields is still vested with national governments. This creates a tension that is bound to be won by national governments.

Second, the fact that large areas of economic policies remain in the hand of national governments create asymmetric shocks that undermine the sustainability of the monetary union. In particular, the use of uncoordinated national wage policies leads to divergent trends in the competitive positions of the member countries of the eurozone. This in turn leads to a vicious circle in which each country tries to recover its competitive position by wage cuts, leading to deflationary spiral. Not only wage policies have remained in the hands of national governments, the whole of social policies together with the structural reform processes are national affairs. These create a potential of structural divergences between member states leading to diverging trends in output and employment.

These problems call for further steps towards political union. Without a political union the Eurozone is at risk. The previous analysis allows us to describe how such a political union should look like.

A first element of such a political union is a certain degree of budgetary union, giving some discretionary power to spend and to tax to a European executive, backed by a full democratic accountability of those who are given the authority to spend and to tax. This will allow setting up an insurance system against asymmetric shocks in the Eurozone. This can take many forms, and several proposals have already been made (see e.g. Mélitz and Vori(1993), Von Hagen and Hammond(1995)). The transfer of budgetary power does not have to be spectacular as was shown by the previous authors. Nevertheless, it will require a European budget that increases significantly relative to its present level of about 1% of GDP.

Second, an increased institutionalized coordination of a number of economic policy instruments that have macroeconomic consequences will be necessary. I have

mentioned social policies (including structural reform policies) and wage formation. The need to coordinate does not imply that these areas should be fully centralized. Rather it means that spillover effects of decisions in these areas into the monetary union should be internalized. Thus, decisions like cutting the working week in France which have obvious implications for the Eurozone as a whole should be a matter of common concern, and should not be allowed to be decided by individual countries without consultation with other countries. Similarly, national wage policies will have to be coordinated in order to avoid asymmetric developments in competitive positions of the member countries.

Third, accountability of the European institutions that today take major decisions at the macroeconomic level will have to be improved significantly. This includes the ECB, an institution that singularly has managed to escape any serious degree of accountability. Improving accountability of the ECB also implies that the definition of the objectives of monetary policy should not be left to the sole judgment of the ECB, as it is today. The definition of the objectives of the central bank belongs to the political sphere. It is not just a technical problem that the ECB alone decides about. It also follows that the independence of the ECB should be restricted to instrument independence, much in the same way as this is done today in major countries in the world, such as the UK, the US and other industrialized countries. This means that once the objectives have been defined by accountable politicians, the central bank should be left free to pursue a policy that leads to these objectives.

In this connection a redefinition of the inflation target will be important. It appears today that the inflation target pursued by the ECB is too tight. A target setting inflation at maximum 2% per year makes it very difficult for countries that have lost competitiveness to restore it without great losses in terms of output and employment (see Sinn and Reuter(2001) on this). A target of 3% would make this equilibration process easier. In a way it can be said that the present low target introduces rigidities in the Eurosystem. Raising the target is equivalent to introducing greater flexibility, which is the dream of central bankers.

8. An omitted "deep" variable

The German monetary union between West and East Germany that came about in 1990 after a transition period of barely six months stands in great contrast with the European monetary union. The German monetary union was part of a larger political union. Thus, on July 1, 1990 the monetary union was established together with a unification of all important macroeconomic instruments (budgetary policies, transfer system, wage bargaining, social security, regulatory environment). There can be no doubt that such a comprehensive political union came about as a result of a strong national sense of common purpose and an intense feeling of belonging to the same nation⁶. In a way it can be said that this sense of common purpose was the deep variable that made the monetary and political union possible in Germany. Put differently, monetary and political union were endogenous variables that were driven by a common force. The existence of this deep variable made it inconceivable that Germany would have started with a monetary union without having a centralized budget capable of making large transfers between regions, or without a unified social security system.

This deep variable is absent at the European level. It is this absence that makes the progress towards political union so difficult in Europe. The lack of a deep variable also explains why Europe started with monetary union. The latter can be considered to be the easy part on the road to political union. But at the same time it puts the whole process at risk. Without a sense of common purpose it is very doubtful that further progress towards political union will be made. And as I have argued, without these steps towards political union the monetary union will remain a fragile construction.

9. Conclusion

In this paper I have surveyed the achievements of the Eurozone together with the challenges to which is has led. Rather than summarize this survey, I want to draw the key conclusions relating to the link between monetary and political union.

I have argued in this lecture that the long run success of the Eurozone depends on the continuing process of political unification. Such a political unification is needed to

⁶ See Baldwin and Wyplosz(2006) on this issue.

reduce the scope for the emergence of asymmetric shocks and to embed the Eurozone in a wider system of strong political ties that are needed to take care of the inevitable divergent economic movements within the Eurozone. In addition, such a political union is necessary to deal with the flaws in the governance of the Eurozone. The major flaw is that while national politicians continue to bear the full political responsibility for unfavourable trends in unemployment, key instruments to deal with this problem have been taken away from them and have been transferred to European institutions that bear no political responsibility for their decisions.

The recent no votes concerning the European constitution signal that there is a strong "integration fatigue" in the European Union today, making it unlikely that significant progress in political unification can be made. This will continue to make the Eurozone a fragile regime. In the long run, however, there can be little doubt: without further steps towards political union the Eurozone has little chance of survival.

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