Economic divergence in the Euro area – why we should be concerned

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1. Escalating divergence without self-correction?

After more than eight years of experience with the euro there are growing concerns about divergent patterns of development among the member states of the Euro area and how monetary policy should deal with them (see e.g. Commission of the European Communities 2006). Divergence pertains to various macroeconomic indicators, mainly growth rates, inflation, labour costs and trade balances. Before the European Monetary Union (EMU) was established there had also been divergent performances between the European Union (EU) member states, and also within the former European Monetary System (EMS). But the then existing adjustment mechanisms, mainly exchange rate realignments and national monetary policy, are no longer available. Divergence in a monetary union is, of course, not a problem *per se* as it may reflect acceptable or welcomed diversity, such as catching-up of less advanced economies which leads in the long run to overall convergence. But there are forms of 'negative' divergence which hamper growth in the EMU and do not serve long-run convergence. Such divergent performances without appropriate policy responses or adjustment mechanisms can contribute to macroeconomic underperformance of the Euro zone and can lower the effectiveness of the common monetary policy, and the latter might even set false incentives for the members. Hence, for the social and political cohesion

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of a monetary, even more so for a political union, it may be harmful for the whole and may pose a problem for the governance of the EMU and the EU.

Looking at aggregate inacroeconomic indicators for the whole area may be deceptive as they suggest an elusive average which results from deviations in both directions. In the worst case, the overall performance might look satisfactory, but a disaggregated look may divulge a poor performance of *all* members which tend to offset each other. Monetary policy might be too restrictive for some member states and too loose for others – one size would fit none (Enderlein 2005). If such problems exist and are indeed relevant, then the question arises as to what policy changes are necessary. This concerns not only monetary policy, but also the common rules for fiscal policy in the EMU as set by the Stability and Growth Pact (SGP).

In the following, I first review the empirics of divergent macroeconomic developments within the EMU since 1999. Then I attempt to identify the problems and their prospective impact on the functioning of the EMU, including the questions as to what type of divergence is harmful for the EMU or how much divergent development is tenable. Finally, different approaches that mitigate or resolve the problems are discussed.

2. Einpirical evidence

GDP growth differed clearly and persistently among the former twelve member states between 1999 and 2005 (see Figure 1). In the period analysed Germany, Italy and Portugal brought up the rear, thus depressing the Euro zone average. Ireland, Greece and Spain were on top, the latter two despite problems in the trade balance and in spite of inflation that was too high. The performance of the small, rapidly growing member states such as Ireland and Luxembourg seem to require little attention if the focus is on overall EMU growth as their weight in the Euro area has been small, at 1.9 per cent and 0.4 per cent of the EMU-GDP, respectively. Germany's and Italy's poor growth performance explains the lion's share of the weak overall growth trend of 1.9 per cent p.a. in this period (at 1.3 per cent and 1.1 per cent, respectively) as their GDP accounts for 47 per cent of the EMU-GDP. The growth divergence displayed here should not be welcomed, as convergence due to the catching-

up of member states with lower per-capita-income (such as Greece, Spain and to a lesser extent Portugal); two of the richest economies – Luxembourg and Ireland, formerly poor, enjoyed the highest growth. The standard deviation in GDP per capita amongst EMU members has risen from 8.2 per cent (1998) to 11.4 per cent (2006, author's calculation with AMECO-data mentioned in Figure 1). It seems that the growth divergence observed here rests on the inaptitude of a few – mainly larger – member states to realise higher growth, thus dampening average growth in the EMU (1.9 per cent p.a. as compared to 2.7 per cent in the US). The differential in growth rates per capita was less, 1.4 per cent in the EMU and 1.9 per cent in the US.

The growth differences – measured as the standard deviation – do not deviate strongly from differences before the EMU, nor from the regional growth pattern in the US (based on the state-level) (see Benalal et al. 2006). But prior to the EMU, exchange rate adjustments have been possible, and in the US labour mobility[1] and fiscal transfers – similar to responses to regional disparities within Germany – can attenuate the differentials. The EU budget, including the structural funds, makes up for only 1 per cent of EU-GDP and 2.1 per cent of all government expenditure of the EMU member states, whereas in the US more than 65 per cent of the total government expenses reflect those of the central government (some 19 per cent of the US-GDP). Contrasting the US data, the EMU divergence of growth rates is persistent, whereas the US figures show only temporary differentials.

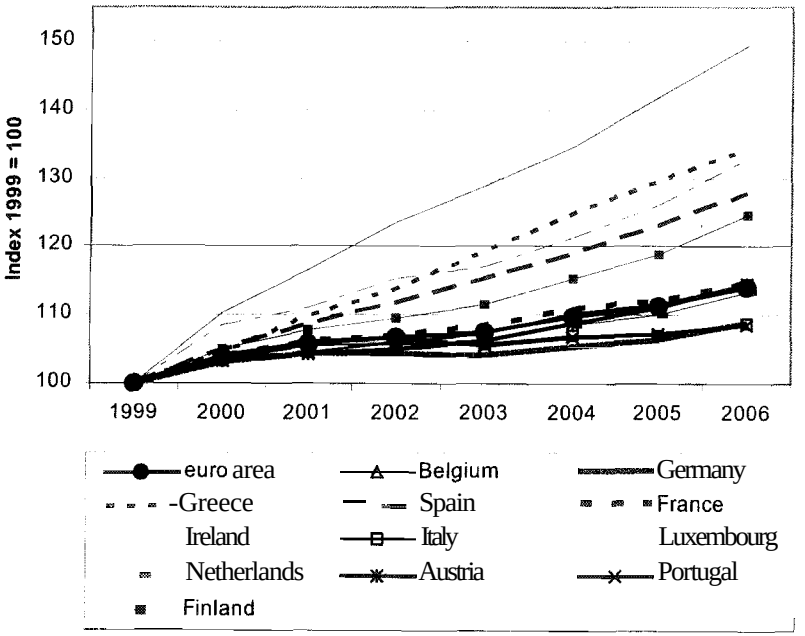
With the business upswing in 2005, especially in Germany, the growth differentials in the EMU seem to fade. But this is likely to be only a temporary relaxation as long as the determinants for domestic demand continue to differ. In the case of Germany, growth gained momentum in 2006 with 2.9 per Cent, mainly due to replacement investment triggered by ever increasing exports while the recovery of consumption remains weak (see Weber 2007a).[2] Unless the imbalances in EMU pertaining to

[1] Perhaps population mobility is a more precise tenn as the changing destinations of immigrants also work as an adjustment mechanism.

[2] Representative of many others, Axel Weber, president of the Deutsche Bundesbank, praises Germany's fundamental restructuring due to wage restraint and labour market flexibilization as a recovery from the status as Europe's 'sick man', contra-

wages, trade and real interest rates, as discussed below, are lowered it is unlikely that the growth convergence in 200617 is more than temporary. However, it cannot be excluded that 'negative growth convergence' occurs in the medium term by dampened overall EMU growth.

Figure 1: GDP growth in the Euro area 1999-2006



Source: AMECO, author's calculations.

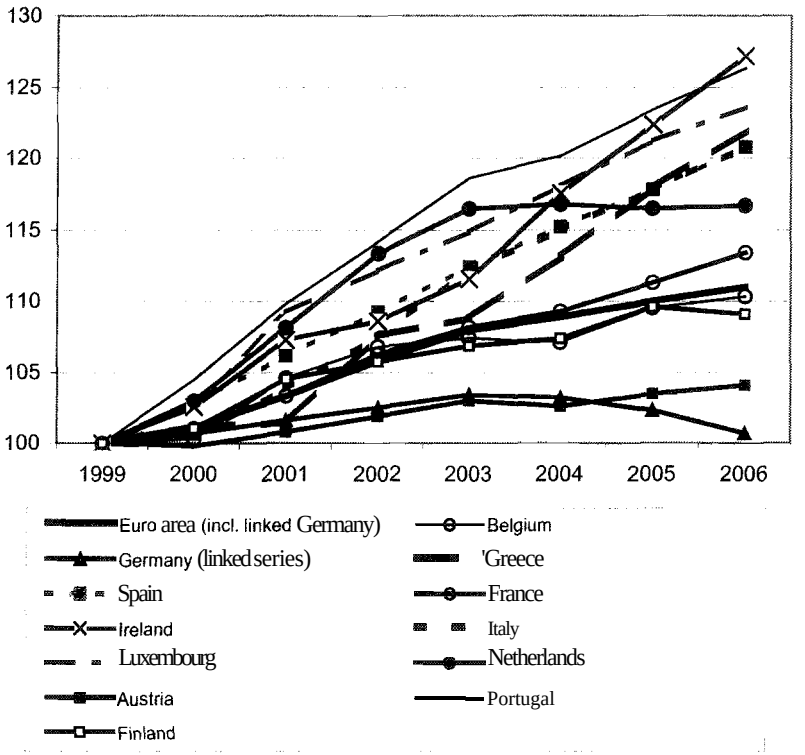
There is also a persistent dispersion of *inflation rates* in the Euro area. Finland (1.5 per cent), Germany (1.6 per cent) and France (1.9 per cent) performed below the ECB target of around 2.0 per cent in 1999-2006, the rest clearly above, up to 1.7 percentage points beyond the target on average during these years. In the Euro zone, an overall 2.4 per cent was achieved; the band between the low and high performers spanned 2.2 points (see Table 1). Continuous inflation differentials (with a slightly decreasing standard deviation) cumulated over the years to marked differences in the *level* of prices in the member states. For instance, the Irish price level has risen by 17 percentage points more than the German (1999-2006). There is no discernable convergence trend of the price level so far, despite intensified competition in the single European market. A large part of the price differentials stems from services which are mostly non-tradables. Without Germany's below-target inflation (Germany is a formidable 30 per cent of EMU-GDP) the ECB would have fallen short of its target to a much greater degree. Other member states enjoy a free ride on Germany's (and some smaller countries) stiff price discipline.

Inflation correlates heavily with nominal *unit labour cost growth* which shows strong divergent trends amongst the member states. Unit labour costs compatible with the inflation target of the ECB (and a constant profit margin) should rise by roughly 2 per cent annually or 15 per cent in 1999-2006. This would reflect productivity-led wage policy plus a compensation for target inflation. France almost followed this benchmark, and the EMU-average undershoots only slightly (see Table l). However, this average performance results from strong underperformance in Germany and Austria, and marked overshooting in most of the other member countries. Here, money wages have risen far too much as compared to productivity and target inflation, but this was offset by German wage austerity. Throughout the period 1998-2006, nominal unit wage costs rose in some countries by some 25 percentage points more than in Germany, which is the country with the lowest unit labour cost increases (see Table 2).

Again, free-riding on German workers' wage restraint made the development tenable for the ECB. Germany's continuous wage repression from 1999 to 2006, a stunning breakdown of the traditional wage formation system, not only rescued the average unit labour cost performance in the EMU and hence price stability in line with the ECB goal, but also caused severe problems for Germany's macro performance and had repercussions for the whole union (see below).

dictory to his contention that Germany's low growth trend has not changed. This view reflects a surprising unawareness of the European imbalances.

Figure 2: Nominal unit labour costs in the Euro area 1999-2006 (1999=100)



Source: AMECO, author's calculations

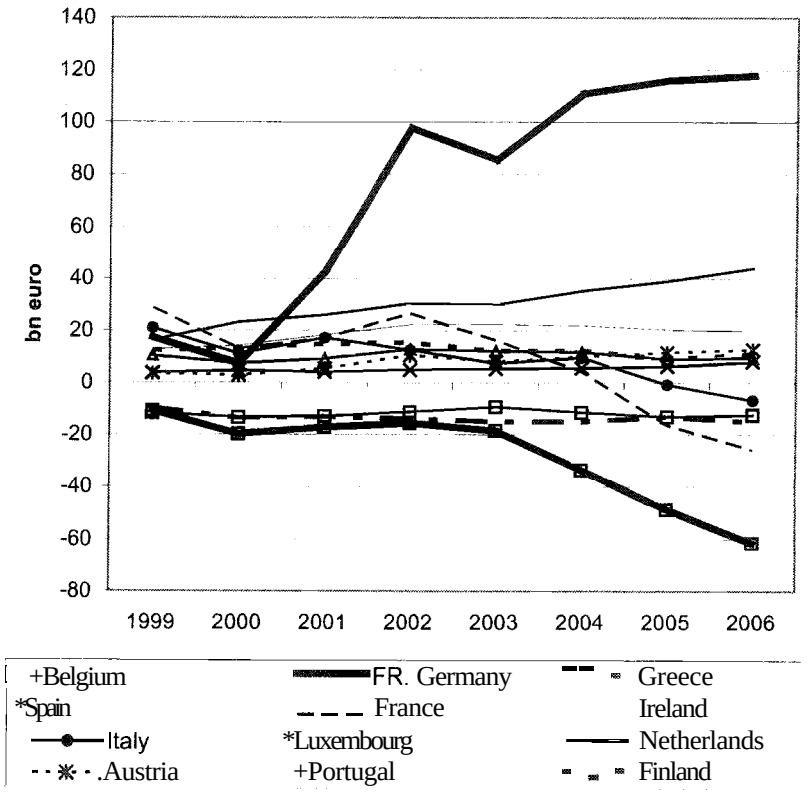
The surprising feature of this development is the *pet-sistence* of the divergent trend in unit labour costs. Prior to the EMU it would have been likely that self-correcting mechanisms (e.g. exchange rate realignrnents) or national policies (e.g. monetary policy) would have altered the trend.[3]

[3] The nominal wage restraint started in Gennany right after the unification in 1994. From 1994 until 2006 the average nominal unit wage increase was 0.2 per cent p.a., whilst the trend for 1960-1993 was 3.7 per cent p.a. (1960-70 2.9 per cent 1970-80 4.6per cent, 1980-90 2.7 per cent) (author's calculations with AMECO-data, linked series for Germany).

Germany's wage restraint was the key determinant of stagnant or slightly decreasing real wages and almost stagnant private consumption. The meagre growth trend in this period (except in the year 2000) was almost entirely caused by booming net exports, based on superior price and costs competitiveness. Downward flexibility (not rigidity!) of unit labour costs relative to the 2-per cent reference functioned like a continuous real depreciation of the exchange rate.

Not only since the launch of the EMU, strong and persistent *trade imbalances* relative to GDP, have characterised divergent performances among the member states. Greece, Portugal and increasingly Spain run large deficits in the trade with goods and services (and respective current account deficits), whereas Ireland and Luxembourg enjoy extreme double-digit surpluses; but again Germany is the most bulky surplus economy, with surpluses increasing up to more than 5 per cent of GDP in 2005. The mirror image is slowly decreasing surpluses (or increasing deficits) in some other countries, particularly in Italy. But more important than deficits or surpluses are the *changes* in the trade balance. Germany, Austria and Netherlands increased their surpluses strongly, while Spain, France and Italy suffered marked deteriorations of their trade balance by 4.4, 3.5 and 2.4 percentage points, respectively, from 1998 to 2006 (see Table 1). The divergent growth of net exports amongst EMU members is shown in Figure 3. Germany outcompetes her neighbours with an enormous growth, whereas Spain faces rapidly increasing deficits, and the other countries follow a more moderate pattern between these extremes.

Figure 3: Growth of net exports of goods and services in cza-rent prices (1999-2006)



Source: AMECO, author's calculations.

Of course, trade balances not only reflect differentials of unit labour costs, they are also caused by capital flows and by growth differentials. The typical pattern of trade imbalances in the EU is long standing with Germany as an almost permanent surplus country (interrupted by the years of re-unification in the early 1990s). Finally, much of Germany's trade surplus steins from trade with non-EMU countries. Deficit countries can enjoy high growth for longer periods as long as finance is smoothly available for the financing of deficits and as long as other drivers of growth are at work in the deficit countries. The EMU seems to provide risk-free finance for even huge and enduring or rising current account deficits without even scant country risk premia. The EMU had previously abolished country risk premia in interest and exchange rates. This is a double-edged achievement: nominal interest rates have converged, but current account imbalances are on the rise, abandoning mechanisms to curb 'beggar-thy-neighbour' policies. Winners in the changes of net exports (Germany, Austria, Netherlands, and Portugal)[4] tended to have below average or just average growth rates (and the EMU average was already weak, as mentioned).

If aggressive competitors pressure their neighbours for increasing market shares at the expense of less growth or even de-industrialisation, the nature of this type of wage competition should be questioned. If it is not due to superior technology but rather to underpricing based on wage-deflation, as in the case of Germany in the period analysed, the evaluation turns to the negative. Although trade should be a positive-sum game it ***can*** be a zero-sum game or even a negative-sum game when it turns out to be deflationary for all.

The most stunning divergence in the EMU pertains to the growth of ***domestic demand*** (see Table 1). Whereas domestic demand nearly stagnated in Germany between 1998 and 2006, it thrived in Ireland at 48 per cent, in Spain at 35 per cent. Good growth performers enjoyed strong domestic demand dynamics, poor performers did not. Looking at average growth rates in the EMU conceals strong divergence which feeds back on the overall weak growth performance.

In the EMU, due to the centralisation of monetary policy, nominal short- and long-term ***interest rates*** have nearly equalised. Because of the inflation differential, real interest rates – measured by discounting nominal rates with present national HICP inflation rates – differed by some 2.2 percentage points on average between 1999 and 2006, both on the short and the long side. Calculating real interest rates with forward looking expected inflation rates will yield smaller differences if national rates closer to the ECB target are expected. Since the ECB has tolerated even strong national over- and undershooting as long as the average inflation rate is close to the target, we do not know much about national inflation

[4] Despite a marked trade deficit, Portugal was able to lower slightly the size of its deficit relative to GDP.

expectations. Hence, taking present inflation rates as reference values for real rates can be justified. Greece, Portugal, Ireland and Spain enjoy negative real short term interest rates; Germany and Finland are faced with the highest rates and are thus penalised for their low inflation. Looking at the difference of GDP growth rates and real short-term interest rates, the degree of expansionary monetary stance can be quantified (see Table 2). Germany is encroached upon by a comparatively restrictive monetary policy; Ireland and Spain benefit from rather loose monetary policies which support their growth. Calculating Taylor-rates for the member states yields similar results (see Enderlein 2005). Germany's inflation and real interest rates are about 0.5 points below the EMU average and roughly 1 point below the EMU average without Germany (in the period considered). Germany's growth rate was also one point below the EMU average without Germany.

Table 1: Selected divergence indicators in EMU-12 (1999-2006)

	HICP Index, 1999 = 100	average inflation rate, HICP	real GDP growth p.a. (y)	growth of real GDP per capita, p.a.	cumulated change of domestic demand	real interest rate (r), short term (a)	y-r (short term)	real interest rate, long term (b)	change of net exports / GDP, in PP
EMU	118.2	2.4	1.9	1.4		0.9	1.0	2.4	-0.3
Austria	114.9	2.0	2.0	1.4	10.1	1.0	0.9	2.5	+3.2
Belgium	116.2	2.2	2.0	1.6	13.4	0.8	1.3	2.3	-1.3
Finland	111.1	1.5	3.2	2.9	24.1	1.5	1.5	3.0	-3.5
France	114.1	1.9	1.9	1.3	17.6	1.1	1.0	2.6	-3.5
Germany	111.8	1.6	1.3	1.2	2.5	1.4	-0.1	2.9	+4.2
Greece	126.1	3.4	4.3	4.0	33.9	-0.4	4.5	1.1	+0.8
Ireland	128.6	3.7	5.9	4.0	48.2	-0.7	7.4	0.8	-2.8
Italy	118.2	2.4	1.1	0.7	9.5	0.6	0.6	2.1	-2.4
Luxemb.	120.5	2.7	4.2	3.2	27.9	0.3	4.3	1.8	n.a.
Netherl.	118.2	2.4	1.8	1.3	9.1	0.6	1.0	2.1	+4.1
Portugal	123.7	3.1	1.2	0.5	14.5	-0.1	1.5	1.4	+2.1
Spain	126.1	3.4	3.6	2.2	34.7	-0.4	3.9	1.1	-4.4
band (low to high) in %	11.1t028.6	1.5t03.7	1.1t05.9	0.5t04.0	2.5t048.2	-0.7t01.5	-0.1t07.4	0.8 to 2.9	-4.4 to 4.2

a) EONIA; b) government bonds with 10 yrs maturity.
Source: AMECO, ECB, author's calculations.

Table 2: Divergence in wages and unemployment in EMU-12 1999-2006

	nominal unit labour costs 1999 = 100	nominal compensation per employee, p.a.	real compensation per employee p.a., deflated with HICP	change of adjusted wage share in GDP, in PP	average unemployment rate	change of unemployment rate in PP
EMU	111.0	2.5	0.1	-3.6	8.5	-1.2
Austria	104.1	1.9	-0.1	-8.4	4.3	+1.2
Belgium	110.3	2.6	0.4	-3.9	7.9	+0.1
Finland	109.1	3.3	1.8	-0.4	9.0	-2.5
France	113.4	2.8	0.9	-0.2	9.4	-1.2
Germany	100.7	1.7	0.1	-5.1	8.5	+1.0
Greece	122.0	6.3	2.9	-5.0	10.5	-2.7
Ireland	127.2	6.1	2.4	-1.8	4.5	-1.4
Italy	120.8	3.0	0.6	0.2	8.7	-3.8
Luxembourg	123.6	3.7	1.0	1.2	3.4	+2.2
Netherlands	116.7	3.8	1.4	-3.7	3.5	+0.7
Portugal	126.3	4.0	0.9	2.8	5.7	+3.1
Spain	120.8	3.2	-0.2	-7.9	10.5	-4.4
band (low to high) in %	0.7 to 27.2	1.7 to 6.3	-0.2 to 2.9	-7.9 to 2.8	3.4 to 10.5	-4.4 to 3.1

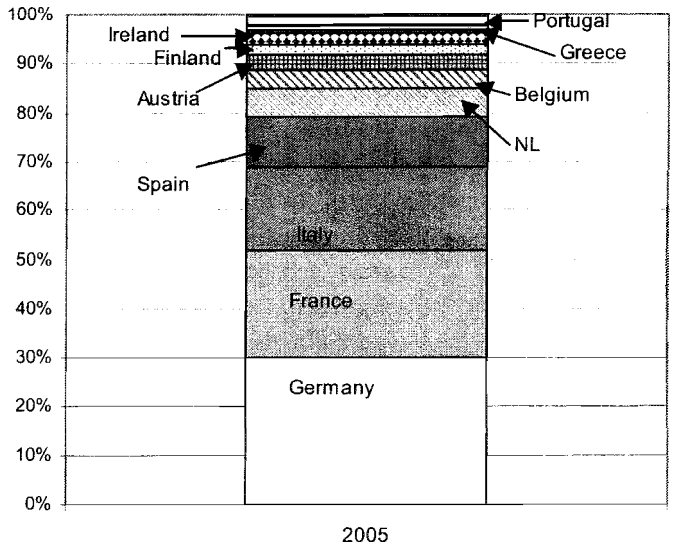
Source: AMECO, ECB, author's calculations.

There have been marked differences in the average nominal and real *wage changes* (per employee) since the introduction of the Euro (see Table 2). In Germany, real wages per employee stagnated, in Greece they rose by 2.9 per cent annually. In some countries real wages stagnated, while nominal wages and inflation rose too much (e.g. Spain), a development not in line with sound macropolicies. Although on average the wage share in GDP declined within the EMU, this trend differed conspicuously between member states. In some countries the rising profit share was used predominantly for investment, in others it was used for capital exports reflected by current account surpluses.

Unemployment rates converged somewhat in the EMU, but still the differences in the level of unemployment are conspicuous, and the changes in unemployment rates differ strongly. Although on average unemployment shrank in the Euro area between 1998 and 2006, some countries made only small progress (especially France and Germany), and a few, notably Spain, improved significantly (see Table 2). The overall reduction in unemployment was disappointing.

When analysing divergences in the EMU, one should keep in mind that the monetary union is composed of 12 member states of quite different size. The three biggest economies account for almost 70 per cent of EMU-GDP, the four biggest for 80 per cent, and the five smallest for only 6 per cent (see Figure 4). Departing from the focus on the aggregate of the EMU, three or four core economies are discernible plus some eight (or nine) small economies which are, on the one hand, strongly dependent on the development in the core, on the other hand, on a number of country-specific factors. Apparently they cannot be considered simply as 'satellites' of the core-economies as their economic performance differs.

***Figure 4: Composition of real GDP in EMU-12** 2005*



Source: AMECO, author's calculation

As mentioned above, divergence is not bad and convergence not good ***per se***. Convergence at a low level of economic activity is not desirable, and divergence based on achievements that do not harm other EU members might even be regarded as desirable. What was to be discussed now are the causes of divergence, whether divergence should be a matter of concern, and if so, which divergence trends are critical and impair the functioning of the monetary union, especially monetary and fiscal policies.

3. Assessing divergences – why we should be concerned

Divergent economic trends in the Euro area can have a number of causes, such as idiosyncratic shocks, country specific structures of the national economy and of the respective institutions and policies; path dependency may corroborate divergent growth trends; there can be catching up processes of the less developed members or different responses to symmetric

shocks. All of this may be involved in the actual development but it is hardly possible to disentangle these causes. Such causes are often summarised as 'structural factors' as opposed to macroeconomic factors being supply-side driven in contrast to demand-induced. From this point of view, these factors may have a positive or a negative impact on growth. If such factors are at the root of divergence, then there is neither a possibility nor a need for policy action at the EMU level; the concern should only be at the national level of countries with a below average performance.

Behind allegedly growth dampening 'structural factors' are mainly suspected rigidities in wages and prices due to a lack of competition on goods and labour markets and misled policies. As Ireland, Spain and Greece – countries with quite different institutions and policies – are in the group of fast-growth performers, it seems unconvincing that the improvement of so-called structural factors, i.e. reduction of rigidities, was key to their success. It also has to be considered that centralised EU-policies play an increasing role and make national law and national institutions more similar, at least in many fields. So it becomes necessary to search for other causes.

In a monetary union, and even more in a political union, one would expect a gradual trend towards more convergence leading to more economic cohesion of the member states. Long-lasting divergence trends, especially in growth, employment and unemployment, would probably lower the degree of social cohesion and acceptance of European integration. The hopes and expectations of greater cohesion and overall economic improvements via the creation of the EMU have not materialised. Or is this still to come?

If the diagnosis of different degrees of labour and product market flexibility and policies with respect to competition on goods, service and labour markets as the main causes of divergence is doubtful, what then are the causes? My proposition is: a large part of divergence in the EMU can be attributed to divergent wage developments (unit labour costs) in the context of different national institutions and policies for wage formation, dependent also on the magnitude of unemployment.[5] It seems that

[5] One key factor is the amazingly strong and persistent wage restraint in Germany since the mid-1990s caused by a complex set of institutional, economic and politi-

the divergent wage development is the chief explanatory factor for different inflation rates, and these cause different real interest rates which impact private investment and fiscal policies. The strong unit labour costs divergence explains the divergence in competitiveness. In a sub-optimal currency area the corrective forces are weak or even absent.

On this basis, there are four drivers which generate, maintain and reinforce divergence: monetary and fiscal policies, absence or weakness of self-correcting market mechanisms, 'beggar-thy-neighbour' policies, as well as free-rider behaviour due to moral hazard.

First, monetary policy in the EMU and the common guidelines for national fiscal policy (SGP) can support and reinforce divergent trends, particularly if this tends to hamper overall growth. When national inflation rates differ, mainly due to differences in the unit labour cost development, real interest rates also differ, since nominal interest rates are unified in the EMU. This punishes members with strong price stability, and favours those with weak. If this divergence of real interest rates contributes to growth differentials, the ratio of growth rates and interest rates deteriorates in low-growth performing countries which pressure fiscal deficits and makes the fulfilment of the fiscal rules more difficult. Hence a more restrictive stance of fiscal policy seems necessary, one which aggravates the growth performance of the weak growth performers and improves it in strong-growth economies. Low real interest rates, on the other hand, set incentives for too expansionary a fiscal policy. Fiscal policy, in principle under the national discretion of the member states in contrast to monetary policy, is not likely to counteract too tight or too loose monetary policy in the respective country groups; the opposite is more likely. All these problems are invisible if one narrows the view to the EMU aggregate.

Second, self-correcting market mechanisms against divergence may work only slowly and may inhibit growth in some countries, and hence contribute to dampened growth in the EMU. In traditional monetary unions (e.g. Germany or the US) it is interregional labour mobility and fiscal federalism which correct or at least counter regional divergences. As this plays a minor role in the EU and EMU, there remains only the so-called ***competitiveness channel:*** countries with lower inflation and lower

cal factors which requires an analysis of its own. The consequences well over to the rest of the EMU.

wage costs improve their external competitiveness, increase net exports and outcompete countries with higher inflation. Competitors have to lower their inflation rate or even reduce prices to regain competitiveness. The comparative regional convergence in traditional national economies is generated this way, supported by factor mobility and fiscal transfers. The impact of this channel is supposed to offset the impact of the ***real-interest-rate channel*** so that convergence will eventually occur. This is the often asserted key argument against the problem of divergent real interest rates (see Weber 2007, SVR 2006, 413 ff., Commission 2006). However, if the interplay between these two channels does not work this way – as will be shown below – the EMU lacks corrective forces.

Third, growth differentials can be caused by competitive forces which dampen growth in some countries. The classical case is a 'beggar-thy-neighbour' policy via competitive real devaluations of the domestic currencies to gain competitive advantage. Unemployment is exported this way. In a currency union, quasi real devaluations can occur via wage competition. This can be an effective way to curb inflation that is too high in some member countries, but it can also have deflationary effects if the dose of aggressive wage competition is too strong. Even if there are no deflationary effects, the redistribution of market shares in the EMU could be a zero-sum game. If the economy of superior competitiveness is relatively large, it may increase exports but inhibit domestic demand as a consequence of wage restraint. If the latter outweighs the former, overall output growth in such economies remains sluggish. Even though the competitiveness channel tends to dampen inflation in the less competitive countries, it is likely to have negative growth effects in both country groups, the winners ***and*** the losers, if the winners are large.

Fourth, growth differentials may rely on free-rider behaviour of some member states. It is a typical case of moral hazard. Member states with a lesser degree of inflation discipline exploit those countries with a stronger discipline and benefit from low real interest rates and a lack of central bank concern. If the ECB cares only for the average, it gives incentives for lenient attitudes in some countries, particularly with respect to wages and fiscal deficits. These exploit the austerity of other members, as long as the average inflation rate complies with the target. The architects of the EMU attempted to avoid such moral hazard in the field of fiscal policy by setting rules for budget deficits (whether or not these rules

fulfil their goals is not discussed here), but it refrained from setting rules for wage policy and other domestic sources of inflation.

In all four cases, actions on a national level to correct the divergence or the below-average performance will not be possible. Collective action or the introduction of rules at the EMU level is unavoidable. All four cases do play a role in the EMU, but highlighting them does not mean that they explain all forces towards divergence.

Some observers assert that the competitiveness channel outweighs the real interest rate channel, at least in the long run, so that divergent growth and inflation rates will last only temporarily and are subject to self-correction through the markets if the intensity of competition is high. The more wages and prices respond to competition, the more rapidly the competitiveness channel will work. This sanguine view is based on the following arguments (see Commission of the European Communities 2006, ECB 2005, SVR 2005):

- The role of real interest rate differentials is downplayed as investors look at forward interest rates which are less diverse in the EMU if people believe in the ECB target inflation rate (and not in the past or present national inflation rates).
- While the interest rate effects do not cumulate, as it is asserted, the competitiveness improvements do; therefore time works for the latter and against the former.
- The fact that the business cycle in the EMU is increasingly synchronised indicates the small impact of the real interest rate divergence.

These arguments are not convincing. Concerning the role and impact of real interest rates, debtors look at nominal interest rates and their nominal income increases. The more persistent the inflation and price level divergence is, the more likely it is that agents believe in the continuation of these processes. This is even more valid if they know that the ECB does not care about inflation divergence, as it deals only with the average. Real interest rates are particularly low if asset price bubbles emerge, e.g. in real estate. Cross-border flows of capital tend to feed the bubbles as there is no exchange rate risk any longer in the EMU. Bubbles can trigger construction booms which contribute markedly to growth. Conversely, high real interest rates may contribute to a stagnation of the construction industry. Sector-specific real interest rates, particularly in real estate and construction, can differ considerably as long as sector prices diverge strongly. As already mentioned, high real interest rates can also impact fiscal policy severely. Whether primary budget balances are sustainable in a given country depends on the ratio of real interest rates and real growth rates in that country.[6] The higher the ratio, the higher the primary surplus required for sustainability. This implies the tightening of fiscal policy if the government follows sustainability goals. All in all, fiscal policies in the member states tend to reinforce divergence caused by real interest rate divergence. For the large players in the EMU this has led to pro-cyclical fiscal policy (see Hein/Truger 2005 und 2006) which has dampened growth in the union.

Concerning the real interest rate channel, two effects have to be distinguished, a flow and a stock effect. The flow effect, i.e. the impact of real interest rates on new credits, does not in fact cumulate. But the stock effect does: Considering the stock of debt, the burden of real debt (D/p) rises all the more slowly (or even falls) as the price level (p) grows rapidly. Hence the cumulating real debt effect must not be ignored.

The most important counter argument pertains to the competitiveness channel. As already mentioned, in larger economies (such as Germany) trade competitiveness improves at the expense of domestic demand, which is dampened by wage restraint. This holds true when taking into account that the propensity to consume out of wages is higher than out of profits and that fixed investments are not independent of consumption dynamics. Wage restraint, i.e. nominal wage increases falling short of productivity increases and target inflation, is more pronounced the more nominal wages respond flexibly to unemployment; goods prices are often somewhat sticky and may be kept on an upward trend due to international demand. In this situation the wage share shrinks, real wages may even sink, and the sluggish domestic demand offsets the impulse from flourishing net exports. Such patterns of a split business conjuncture – domestic demand in the doldrums, buoyant net exports – can corroborate low growth. The pattern is likely to differ in small open economies if exports outweigh domestic demand.

[6] Debt sustainability – a constant debt service relative to output – requires a primary budget balance p (surplus is negative) determined by the real growth rate y, real interest rate r and the debt-to-output ratio D N: p/Y = (y-r) D N.

Moreover, even if the competitiveness channel tends to lower prices of tradable goods in less competitive economies, an increasing share of goods and services consists of nontradables, as typical for service economies.[7] It may take a long time until price reductions lower consumer price inflation which includes an increasing share of nontradables. Even if this is the case, there is the risk of national deflation in attempting to adjust the price level to the more competitive member states. The look at aggregate EMU inflation does not distinguish national deflation, but the latter is likely to dampen growth in the respective country. Hence, even if this mechanism (the competitiveness channel offsets the real interest channel) works, it is painful as it represses growth in the EMU; a better option would be to use pre-emptive policies to avoid overly divergent inflation rates.

It is true and not surprising that the business cycles in the EMU have aligned (European Commission 2004). This is due to trade and financial market integration, supported by a centralised monetary policy. But the synchronisation of fluctuations does not imply that growth rates converge, they can – and did – diverge (see Benalal et al. 2006). Some observers point out idiosyncratic national growth trends based on 'structural factors'. Statistical output trends result from cumulative short-term changes of GDP; as statistical trends have no explanatory power as such, the 'structural position' cannot rebut the possibility that long-standing trends can be caused by adverse macroeconomic policy.

All in all, even if the competitive advantage of some countries were to predominate the disadvantage of higher real interest rates in the medium and long term, this adjustment mechanism would be slow and growth depressing. As there is considerable consensus on this, dissent arises only on how to cope with the problem. In other words, there ***is*** a problem and there ***is*** concern, but what concern?

It should be recalled that from the very beginning the critics of the EMU have warned that a monetary union without a concomitant political union and without high cross-country mobility of labour may pose serious problems for adjusting to asymmetric shocks in the absence of exchange rates and flexible wages. This also reflects the criticisms stemming from the older versions of the theories of optimum currency areas. Like other opponents to the Euro, in 1997 Martin Feldstein – President of the National Bureau of Economic Research and former Chairman of the Council of Economic Advisers in the US – foresaw higher inflation and higher unemployment.[8] On both counts he was right, but he did not foresee that Germany and a few others would offset inflation that was too high in the other member states, and in so doing served as the big stabiliser, albeit sacrificing their own growth and employment. Let us now look at the present policy alternatives.

[7] In the Euro area, services have a weight of 41 per cent in the price index (HICP), non-energy industrial goods 31 per cent, energy 8 per cent, food 20 per cent. Administered prices account for 6 per cent (ECB 2005, 65, 68).

4. Policy options

4.1 More wage and price flexibility?

The dominant response to the divergence problem in the EMU is simple: monetary policy can do nothing about it as it ***has*** to look at averages. It is contended that the average performance of the EMU with respect to the main goal of price stability, is clearly positive; if there are specific problems in other areas, unemployment and output growth in particular, it ***must*** be due to 'structural' malfunctions of product and factor markets in individual countries, namely wage and price rigidities, other institutional barriers, and misled ***national*** policies that dampen microeconornic activities. Spillover effects of such 'structural' shortcomings to other member countries are ignored. This stereotype is christened here 'Brussels Consensus' as it seems to be a widespread approach in the European Commission, many member state governments and the ECB (see Commission 2006, Benalal et al. 2006). In principle, this view can be based on implicit monetarist principles – the money supply guarantees low inflation, being neutral for output and employment, subsequently only 'structural' policies (as opposed to macro policies) remain to cure them. Martin Feld-

[8] "The economic consequences of EMU, if it does come to pass, are also likely to be negative. Imposing a single interest rate and an inflexible exchange rate on countries that are characterised by different economic shocks, inflexible wages, low labour mobility and separate national fiscal systems without significant cross-border cyclical transfers will raise the overall level of cyclical unemployment among the EMU members." (Feldstein 1997, 41). For similar arguments see Hankel (2001, 191 ff.), one of the prominent opponents to the EMU in Germany.

stein would probably agree to some extent because once the EMU was created, the conditions for an optimal currency union had to be established afterwards. But he would probably add that EMU-wide fiscal transfer systems are unavoidable in the absence of labour mobility. However, the main hope rests on increased wage and price flexibility.

If this is put on the policy agenda, the medicine has to be applied domestically as it is asserted. There is considerable consensus on the observed fact of inflation inertia in the member states, i.e. the persistence of inflation differentials; and it is also widely agreed that different wage developments, partially based on different institutional wage formation systems (e.g. wage indexation in Spain), are a substantial if not the main cause of inflation divergence (ECB 2005, 68). From this angle, it would be Germany and Austria who are the role models for the rest: they have, despite all accusations of labour market inflexibility, responded de ***facto*** flexibly to their unemployment (such is the case of Germany, whereas Austria with low unemployment responded flexibly to its large neighbour); Ireland, Greece, Spain, etc. should practice following the two.[9]

There is no doubt that such policy advice is outright deflationary and highly risky as long as Germany continues to follow a trend of zero increase in nominal unit labour costs shoulder to shoulder with the trend in the 1994-2006 period. Hello Japan, hello deflation! The other EMU members have prevented this scenario. Perhaps the ECB might have conducted a more expansionary monetary policy in this case, but whether it is successful in driving a wedge between its inflation target of 2 per cent and unit labour cost increases of zero is doubtful. The correlation between nominal unit wage costs increases and inflation is strong (see Heine et al. 2006, 32 ff.), and among others the ECB itself has confirmed this fact time and again. Hence it can be concluded that full-fledged nominal wage and price flexibility is highly risky, it is not a solution but a menace. If there is stronger wage flexibility compared to stickier prices for goods and services, deflationary tendencies may be prevented but at the expense of further declining wage shares which tend to reduce private

[9] Conversely, some economists accuse Germany of being the only villain in this story whereas the other member states have more or less abided by the rules of productivity-led wage policy. This position ignores that it was only France which followed such a rule whereas the other members practiced overly strong nominal wage increases. See Figure 3.

consumption, domestic demand and growth. Export-led growth a la Germany is not possible for all member states as most of the trade in the EMU is intra-EMU-trade.

The obsession of mainstream economists with wage and price flexibility faces another problem within the EMU. Here labour markets are segmented along national borders, and in a number of member states unemployment is conspicuously low. Although upward wage flexibility would be the inherent market reaction in the case of increasing labour demand, these countries' wages will be dragged downward by the prevailing wage trend in the EMU via the competitiveness channel. If some smaller countries in the EMU practice deflationary wage policies it would not harm the EMU, but if the larger ones do, the smaller – and also the ones close to full employment – have to follow. Therefore the ECB is well-advised to look at the unit labour cost dynamics in the larger economies because ***they*** matter for the average. This is an indication that universal wage flexibility is hardly a panacea but rather highly problematic, and that wage development at least in the larger economies of the EMU which are aligned to the target inflation rate plus the national productivity trend are a necessary underpinning for price stability.

4.2 Proposals for institutional innovations

Rather than focussing on the larger member states it would be better to pay more attention to a wage development that conforms to national productivity increases plus target inflation rates in all countries, on the average of the respective economies, with flexibility confined to the deviations from the average. The main question here is whether this can be achieved on a national level or whether it requires collective rules within the EMU. Similar to the avoidance of real devaluation competition concerning exchange rates, general union-wide agreements are unavoidable. National agreements are in vain if they are undermined by outsiders. So, in line with the ECB inflation target, the issue boils down to having ***no rules*** in the EMU for wage development, or conversely, to having ***EMU-wide rules.*** Having no rules for cross-border coordinated wage developments poses manifold problems as discussed above.

In principle, there are two approaches to the problem. The first one highlights the horizontal harmonisation of ***wage formation systems*** in the

member states, particularly between the larger ones, based on the guidelines mentioned." Within many traditional nation-state economies, such as Germany or the Netherlands, this was achieved through uniform collective wage bargaining systems, based on sector-wide or even centralised wage agreements following the guideline of productivity-led wage policy. In the EMU, some form of cross-country pattern setting becomes necessary. Another approach focuses on governmental *income policy* with a wide variety of options. A long-discussed version (based on the post-Keynesian proposal of Weintraub/Wallich 1971) aims at taxed-based systems; other variants might opt for coordinated wage formation guidelines in and between the civil services of the member states. Coordinated minimum-wage legislation in the EMU could also foster cost-neutral wage formation in the EMU. The *Macroeconomic Dialogue* of the European Union, instituted by the *Cologne Process* 1999, can promote the acceptance and the political climate for wage coordination among governments, the ECB, employers and unions (see Niechoj 2004); this vertical wage coordination with monetary and fiscal policies in the EMU would complement the horizontal wage coordination.

Whatever the solution, institutional innovations in the European wage formation system are the key to coping with divergent wage developments. The implicit assumption in this approach is that aggregate wage setting should not be entirely driven by supply and demand, but is subject to policy guidance – from wage development to wage policy. Following this assumption the wage standard is the nominal anchor for the price level, and in this perspective the growth of nominal wages is a target of macroeconomic policies. This implies the notion that aggregate real wages do not determine employment (see Keynes 1930).

Apart from wage coordination, it could be considered whether and how *monetary policy* can respond to wage, inflation and growth differentials in the EMU. Some propose that the ECB should focus on the largest members, not on the average (Enderlein 2005). But the performance of the two, three or four largest members also differs considerably. Moreover, when looking at the average, the ECB has to take account of the composition of the average, hence one can expect the ECB to have a

[10] Wage formation rules in some member countries with wage indexation to the actual inflation rate are in direct contrast to the ECB's inflation target. It is widely acknowledged that reforms in this area are necessary.

closer eye on the large, rather than on the small contributors to inflation. If the ECB is meant to follow a looser monetary policy to lower real interest rates for Germany and similar countries, the divergence would probably not disappear, and the inflation might rise due to the responses to this policy outside Germany. Although there are good arguments for target inflation in the EMU to be higher, this is not likely to resolve the problem of divergence. It seems that the ECB's hands are tied on this issue. However, what should be reconsidered is the distribution of voting rights in the decision making bodies of the ECB: members of the union should have voting rights proportionate to their size in terms of GDP, instead of the present rule 'one member – one vote' (see Gros/Hefeker 2004). But even this reform will have no direct bearing on the divergence issue. At best more consideration might be given to the national deviations from the average. More promising would be a reform that revalues the economic growth target of monetary policy on par with price stability, thus following the Fed in the US. Then, looking at real interest rates, output gaps and unemployment of larger members would attract more attention.

Can *fiscal policy* heal the problem of a monetary policy which is too restrictive or too loose in some member states? Indeed, it is sensible that a more expansionary fiscal policy can offset the restrictive impulses caused by real interest rates that are too high in countries with below average inflation, and conversely a more restrictive fiscal policy in the other country group can correct the too loose monetary policy. However, this is an asymmetric task: in the latter group of countries it is relatively easy to curb overly high inflation with a more restrictive stance (of course this implies that the non-binding declaration of intent in the SGP to consolidate more in 'good times' is substituted by a binding rule, perhaps even budget surpluses are necessary), but under high real interest rates it is more costly to be expansionary (this would imply that the three-percent deficit rule of the SGP be abandoned). The burden of debt will rise, so it is likely that countries will refrain from this even if the three-percent margin was widened for them.

Another solution could be an *inflation tax* in the EMU, imposed on those member countries that have inflation above the target. The revenue from the inflation tax would then be channelled into the budgets of the below-target inflation countries or the EU-budget. The inflation tax should kill two birds with one stone. First, high inflation countries would

be sanctioned, while moral hazard and free-riding are curbed. The inflation tax could take the form of a budget contribution or an addition to other taxes, for instance to income or payroll taxes; it could also be paid by a reduction to the structural funds distributed to the inflationary country. The aim would be to pressure the country towards less inflation, either by a more restrictive fiscal policy or by indirectly restraining wage escalation. It is up to the national policy of the country to determine how to curb its excess inflation. Another mode to implement such an inflation tax could be the taxation – or outright redistribution – of the ECB's seigniorage normally distributed to the national central banks which in turn distribute their surplus to the respective national governments; alternatively, the national central banks' seignorage could be taxed.

Second, the receiver country would enjoy more leeway in its fiscal policy as compensation for real interest rates which are too high. To avoid incentives for deflationary policy in the receiver country, the transfer of the tax revenue could be subject to conditionality.

Whatever may be the difficulties in finding and implementing new rules in the EMU, searching for institutional changes is much more promising than tolerating economic divergences, while hoping for the self-correcting market mechanisms and promoting the latter with 'structural' reforms for more wage and price flexibility. On a micro level, wage and price flexibility may be conducive for better allocation of factors; on a macro level aggregate wages and prices should be stabilised, not flexibilised. Seen from this angle, the divergence problem in the EMU is first and foremost a macro problem on the EMU level. The more diverse the monetary union becomes after EU-enlargement, the more pertinent the issues of divergence will be.

Since the divergence problem is of common interest in the EMU, it reflects a lack of multilateral surveillance and cooperation in the EU (see Ahearne/Pisani-Ferry 2006). Presently, this policy has two arms, the SGP as a 'strong arm' with formal rules, and the monitoring of economic policies under Article 99 of the Treaty of Nice.[11] The 'Broad Guidelines of the Economic Policies of the Member States' set up by the EU-Council are not binding for the member state governments. The weakness of this

[11] "Member States shall regard their economic policies as a matter of common concern and shall coordinate with the Council, in accordance with the provisions of Article 98." (Article 99 par. 1)

arm reflects the weakness of a single European economic policy as compared to a mere coordination policy and the centralised monetary policy. Progressing towards a political union with a federal economic policy in this respect is on the agenda.

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