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## ON THE MACROECONOMICS OF EUROPEAN DIVERGENCE

OLIVER LANDMANN\*

### No longer a 'clear success'

Some assessments have a short life: in spring 2008, the European Commission published a comprehensive report on the experience of the first decade of the European Monetary Union (EMU), concluding that "the euro is a clear success" (European Commission 2008, 3). Less than two years later, the European Union faced the imminent insolvency of Greece, responding with a multi-billion rescue package that soon had to be expanded for bailing out Ireland and Portugal as well.

The diagnosis of the euro as a 'clear success' had been based on the eurozone's aggregate macroeconomic stability. Contrary to widespread concerns, the euro had proved to be a stable currency. Inflation remained low and stable, never departing far from the European Central Bank's declared target of just under 2 percent. The external value of the currency did not display unusual instability and had been increasing most of the time, both against the US dollar and on a trade-weighted basis. The aggregate GDP of the eurozone continued to grow throughout 2008 without major disruptions.

However, under the calm surface of the aggregate indicators, the eurozone became increasingly divided into groups of countries following sharply diverging paths. This divergence was apparent in growth rates of GDP and its components, cost and price levels, trade and capital flows, and, of course, in various measures of debt: public-sector debt, bank debt, foreign debt. Debt levels appeared to be manageable as long as interest rates were low and growth rates were high. The turning point was reached when the global financial crisis revealed the

vulnerability of excessively leveraged financial institutions and heavily indebted eurozone governments. In some cases, public debt was the consequence of ongoing fiscal deficits, as in Greece, but more often, it resulted from the perceived necessity of socializing private debt, most conspicuously in Ireland. Either way, the most immediate concern of subsequent rescue operations was to avert sovereign defaults and a financial sector meltdown. But even if Europe's politicians somehow manage to defuse the debt problem (uncertain at the time of writing), macroeconomic imbalances persist. Divergence, having changed to reverse gear in the meantime, is actually worse today than it was in the early years of the euro.

This paper offers a macroeconomic interpretation of events, and derives implications for the macroeconomic management of the eurozone.

### The creation of the European Monetary Union as an asymmetric shock

Macroeconomic divergence is most visible in the pattern of domestic demand across the eurozone. Around the starting year of the EMU in 1999, a number of countries in the periphery of Europe, mainly Greece, Ireland, Portugal and Spain (GIPS) experienced a surge of domestic spending which was extraordinary, compared to their GDP growth as well as to the rest of the eurozone. Figure 1 chooses Spain and Germany to represent the periphery and the core of the eurozone, respectively. Between 1999 and 2008 real domestic demand in Spain grew by more than 40 percent, outstripping GDP growth by 6.5 percentage points. The difference between GDP and domestic demand is net exports by definition. Thus the widening wedge between the two also shows in Spain's current account deficit, which swelled from 2.9 percent of GDP in 1999 to 9.7 percent in 2008. In stark contrast, Germany's domestic demand literally stagnated until 2005, adding a meagre plus of 5 percent by 2008. At 14 percent, GDP growth was somewhat higher over the same period. Again, the wedge between GDP and domes-



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tic demand is mirrored by the current account, which moved from a deficit of 1.3 percent of GDP in 1999 to a surplus of 6.7 percent in 2008.

The surge of domestic demand in the periphery can be traced to the run-up of the EMU in the late 1990s when the high interest rates of previously weak currencies converged to the low interest-rate level of Germany. This reflected the eventual elimination of exchange rate risk. The ‘free gift’ of low interest rates greatly encouraged and facilitated a credit-fuelled spending boom. Of course, the reduction of interest rates was not as drastic in real terms as it was in nominal terms. After all, the weak currencies of the pre-euro era had also been high-inflation currencies. By the time the EMU became operational in 1999, inflation rates had converged towards the German level in much the same way as interest rates. But at the same time, European monetary unification gave the GIPS countries access to long-term capital markets and stable long-term borrowing (Sinn *et al.* 2011). Moreover, the elimination of exchange rate risk made these countries more attractive for investment and production. In short, there can be little doubt that the levelling of capital market conditions amounted to a major asymmetric demand shock for the eurozone.

There is a subtle irony here: While Europe was preparing for monetary unification, a large academic literature, arguing along the lines of the theory of optimum currency areas, gave warning about the vulnerability of a European Monetary Union to asymmetric shocks. However, the risk that the very act of forming that union would impart a major asymmetric shock went largely unnoticed at the time.

The disequilibrium created by this asymmetric shock has many faces: it shows up in the national income accounts of the GIPS countries as an excess of spending over income, an excess of investment over saving, and as an excess of imports over exports. In the balance of payments accounts on the other hand, the same phenomenon shows up as a current-account deficit and as a surplus in the financial account. Since the current account mostly records trade flows whereas the financial account records capital flows, there is a recurring debate about what is determined by what: are trade flows the dominant phenomenon which capital flows adjust to, or is it the other way round? As the current and financial accounts are merely flip sides of the same coin, this is an empty debate. The right question to ask is rather what has caused the joint disequilibrium in the twin accounts. To answer this, one must look for the roots of the unbalanced growth of demand in the eurozone.

#### Divergence in unit costs and price levels: a German beggar-thy-neighbour strategy?

The divergence in spending and output growth has been paralleled by divergence in production costs and price levels. Unit labour costs, displayed again for the 1999–2008 period in Figure 2, were constant in Germany while increasing by nearly 40 percent in Spain. A similar picture is obtained for the other GIPS countries and alternative measures of the price level. Since the European Central Bank has roughly kept to its inflation target of (close to) 2 percent for the aggregate eurozone, the GIPS countries have clearly overshoot this target while Germany’s inflation rate was accordingly lower. With a common currency,

such divergence amounts to substantial shifts in international competitiveness. In view of the undeniable effect of relative prices on trade flows and hence trade balances, Germany has been accused of pursuing a protectionist beggar-thy-neighbour policy (Flassbeck and Spiecker 2009) and urged to engineer higher wage increases (Boltho and Carlin 2008).

However, this line of thinking is misleading as the movements in unit costs and prices were not independent driving forces of the observed trade flows, let alone

Figure 1

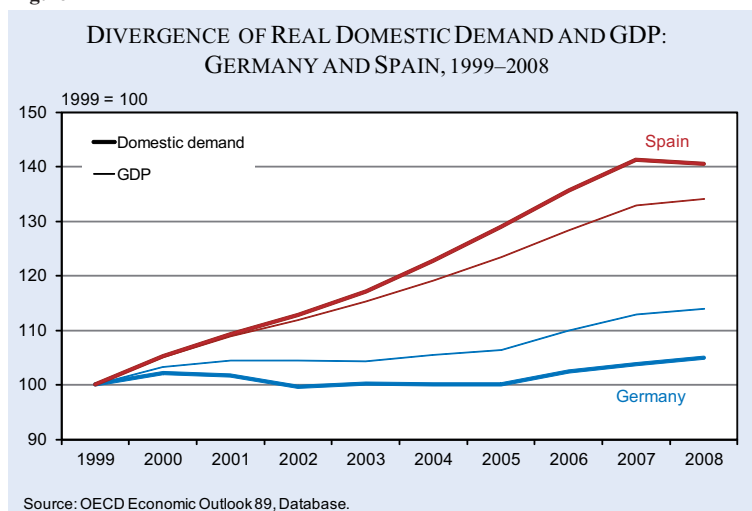
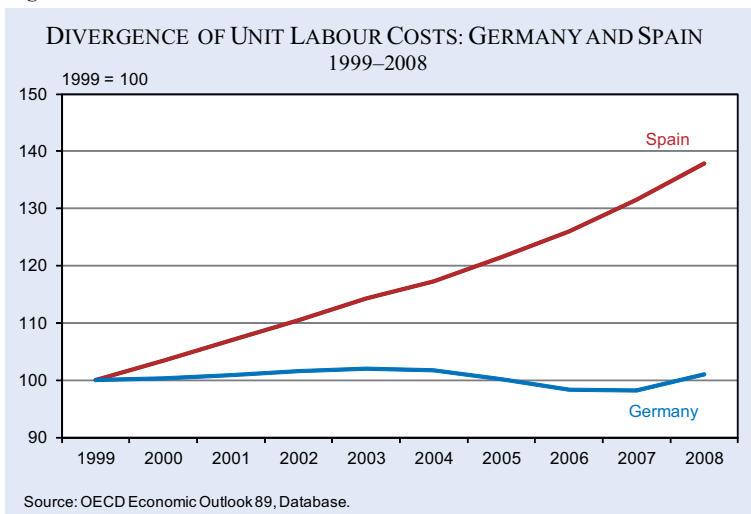


Figure 2



the means by which Germany would intentionally have implemented a mercantilist strategy. The plain fact is that in Germany's institutional set-up there is no way the government could possibly engineer such a strategy. Rather, standard macroeconomics suggests that the shift in relative prices is the endogenous result of the combination of an inflationary boom in the periphery and the depressed state of effective demand inside Germany. The divergence of domestic demand growth and the concomitant current-account imbalances have created a classical transfer problem (Krugman 2010) in which, very much along the lines of Keynes's analysis, the resource-transferring country – then as now: Germany – must endure a deterioration of its terms of trade. Seen in this light, the divergence of unit labor costs cannot be regarded as a deep structural cause of the current-account imbalances, but rather as the mechanism which brought about the change in relative prices required by the underlying shift in expenditure.

For this very same reason, calls for a harmonization of European wage setting around a guideline of the type 'national nominal wage increase = national productivity growth + target inflation rate of the European Central Bank (ECB)' (Flassbeck and Spiecker 2009) are dangerously ill-conceived. Rigidly observed, such a wage rule would freeze relative prices across the eurozone, while allowing the average price level to increase in line with the inflation target. Intended as a device for preventing divergence, such a wage norm would put the horse before the cart. By suppressing the equilibrating response of relative prices, it would exacerbate the tensions arising from shifts in the distribution of supply and demand across the EMU. Of course, to prevent divergence, what

needs to be addressed is not the symptoms, but the root causes of the supply and demand shifts.

#### **Did the boom in the periphery slow down the core of the eurozone?**

How did the boom in the periphery affect the core? A widely-held view is that the vigorous demand growth in the periphery, in conjunction with the improvement of Germany's competitiveness, served as a boost to the German economy, counteracting the drag from domestic demand and pre-

venting Germany's overall GDP growth from slowing even more than it actually did (Cesaratto and Stirati 2011). This interpretation of events is rejected by Sinn (2010) who maintains that Germany, quite to the contrary, was weakened by the asymmetric shock associated with the creation of the EMU. The convergence of interest rates, he reasons, redirected German savings towards the European periphery, thus reducing the loanable funds available for financing domestic investment in Germany, which in turn harmed Germany's potential for growth. A comprehensive report on the European economy by the European Economic Advisory Group (EEAG 2011) largely echoes his view. The German current account had been close to balance or even slightly in deficit throughout the 1990s. But from 2002, Germany turned into a major exporter of capital and channelled as much as two thirds of its total domestic savings into foreign investments. Should we be surprised, then, that Germany had the smallest net investment rate of the entire OECD area over the 1995-2008 period and ended up near the bottom of the GDP growth league? The capital flows set in motion by the introduction of the euro, Sinn maintains, acted like a giant blood transfusion from Germany to the periphery, boosting the recipients and weakening the donor.

The facts and figures are incontestable. But what about causality? The analysis underlying the story of a euro-induced capital shortage in Germany can be traced to a brief note by Sinn and Koll (2000) in which a two-region model of the European capital market is presented. In this model, the elimination of the risk premium paid by borrowers in the periphery is shown to reallocate any given amount of investment capital away from the former low-interest-rate region

(Germany and surrounding countries) towards the periphery. Interest rates fall in the periphery and rise in Germany until they are equalized. The logic is straightforward: The capital market in this model displays all the features of a bath tub which is initially placed on uneven ground, but subsequently brought back into an even position so that the water contained in it flows back towards the former high end. With the assumed fixed amount of investment capital, capital allocation is essentially a zero-sum game – although, to be fair, the equalization of interest rates can be shown to yield an overall efficiency gain (Sinn and Koll 2000).

There is one obvious objection to this model: it treats the European capital market as a closed system (a self-contained bath tub) where in fact, Europe is embedded in a highly integrated global financial system. In a financially open economy, there is no such thing as a ‘fixed amount of investment capital’ in the sense of a fixed supply of loanable funds. The notion that domestic German investment was held back by a sudden lack of funding due to the borrowing spree in Europe’s periphery strains credulity if one sets the volume of net capital inflows into the GIPS countries against the size of the global capital market.

If one is to argue that aggregate investment in the eurozone is effectively limited by the amount of savings that the eurozone can generate on its own, one is forced to invoke severe imperfections of the global capital market along the lines of the well-known study by Feldstein and Horioka (1980). In fact, the near-zero current account balance of the aggregate eurozone over the past decade could be construed as supporting the Feldstein-Horioka hypothesis. However, the voluminous literature spawned by their original paper has unearthed many reasons to doubt that the correlation of national saving and investment rates represents conclusive evidence of heavily segmented capital markets (Obstfeld and Rogoff 1996). What is more, the volume of net global capital flows has grown to unprecedented levels in the years preceding the financial crisis and they are still sizable today. This is hard to square with the notion that investment in Germany should have been frustrated by a lack of access to funding after 1999. If anything, the world suffered from an excess supply of savings during that period. Those were the years of Ben Bernanke’s (2005) ‘global savings glut’, after all, and of Caballero’s (2009) ‘insatiable demand for safe investments’.

If there was a scarcity of capital at the time, it did not leave a trace in capital market conditions. Global real interest rates were on a downward trend since the 1990s and so were interest rates in Germany – with the exception of a brief interlude in 1999/2000 when the European Central Bank was leaning against some transient inflationary pressure. Thus, for the period of rapidly rising German capital exports from 2002 to 2007, one would be hard pressed to find evidence that sources of funding were progressively drying up in Germany. The problem was simply that the demand for domestic investment at that time was by far not strong enough to absorb national saving, even at the going low rates. Moreover, the notion of German investment being constrained by the high-spending periphery sits uncomfortably with the timing of events: When investment activity in Germany finally picked up again after 2005, the collapse of the borrowing boom in the periphery was still some two years away.

One is led to conclude, therefore, that the introduction of the euro was not the cause of weak investment and low growth in Germany. A more appealing chain of causation starts with Germany’s sombre growth outlook over much of the 1995-2005 period which discouraged domestic investment. With their unabated high propensity to save, German savers had no place to go but abroad – where they found willing takers in the booming economies of Europe and elsewhere. This was not a case of capital outflows driving down domestic investment, but rather a case of weak investment driving the savings out of the country. With the benefit of hindsight, it is clear that a substantial fraction of German foreign investment was not invested all that wisely. While this raises the cost of the current crisis to Germany, it is unrelated to the causality of events at the time.

If Germany was not weakened by the periphery’s thirst for capital, was it instead boosted by the periphery’s thirst for imported goods? No. That latter idea is based on the simple Keynesian model of the foreign trade multiplier which, taken at face value, implies a mutually positive transmission of demand-side impulses between trading partners. However, this Keynesian intuition collapses once the transmission is mediated by the response of a single central bank in a monetary union. If the central bank is committed to maintaining the stability of output and the price level for the aggregate monetary union, it will tighten its stance in the event of an asymmetric stimulus to demand in some part of the union. The resulting

monetary policy is just right for the average of the monetary union, but not tight enough for the region experiencing the boom, and overly tight for the rest of the union. Nechio (2011) demonstrates that this is more or less what happened in the eurozone until the onset of the financial crisis in 2008. The endogeneity of central bank behavior actually generates an inverse transmission of a demand shock through the goods markets of a monetary union: if the asymmetric shock boosts the region where it originates and the central banks keeps demand constant in the aggregate union, the rest of the union must contract as a matter of sheer logic.<sup>1</sup> To be sure, if Germany has suffered from this type of adverse transmission from the booming periphery at all, the impact cannot have been large. Germany is a heavy-weight in the eurozone and for that reason alone, the monetary policy stance that is right for the eurozone cannot – and did not (Nechio 2011) – depart far from what is right for Germany.

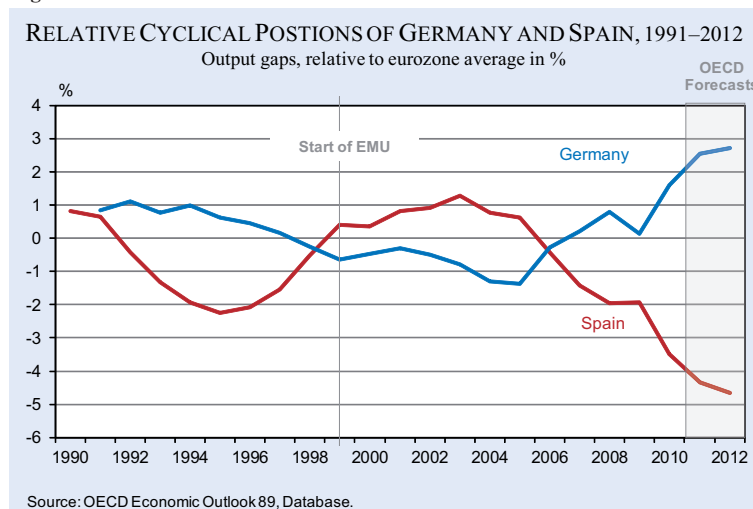
### Rotating slumps

Where does this discussion of transmission mechanisms leave us with regard to the causes of the observed divergence and of Germany's lacklustre macroeconomic performance during the initial years of the EMU? In a longer view, the pattern of divergence can be traced back as far as to the early 1990s. At that time, newly-unified Germany experienced a strong expansion, driven by domestic demand. At the same time, most of neighbouring Europe was in much weaker shape and, in addition, reeling from the high interest rates imposed by the Bundesbank. This episode produced a marked real appreciation of the Deutsche Mark. In essence, German wages and prices behaved like those of the GIPS countries a decade later. Subsequently, Germany entered a long phase of stagnation as monetary and fiscal policies remained tight, the labor market continued to be ossified and external competitiveness was impaired by an overvalued real exchange rate and intensifying low-wage competition from transition countries. Rather than being slowed down by the euro,

Germany felt the 'the long shadow of the fall of the wall' (Gros 2010). At the same time, the periphery benefited from the prospect of joining the approaching EMU and began its ascent as described above. A turnaround did not occur until 2005 when Germany's relative economic strength in the eurozone began to recover while the boom in the periphery was about to fade. As Figure 3 illustrates, the forces of divergence have now changed their direction and they also appear to have gained strength.

What emerges from this sequence of events, is a broader pattern of low-frequency non-synchronized business cycles in Europe – dubbed 'rotating slumps' by Blanchard (2007). These cycles persisted over the entire two decades since German unification, with no apparent tendency to die away. There are reasons to believe that a monetary union which lacks powerful built-in stabilizers, such as a large federal budget or high labor mobility, is vulnerable to rotating slumps of the type shown in Figure 3 even if the single central bank keeps the aggregate performance of the union perfectly stable. Such cycles can be shown to arise from the interaction of economic activity, wage-price dynamics, external competitiveness and real interest rates in the individual countries (Landmann 2011). A destabilizing element in these fluctuations are the real-interest-rate effects of diverging national wage-price dynamics, long recognized to cause macroeconomic fragility in economies that have surrendered their monetary policy autonomy. Concerns about such fragility predate the EMU. They used to be known as the 'Walters Critique' – named after British economist Alan Walters (1990) who invoked this argument to rail against British membership in the exchange-rate mechanism of the European Monetary System.

Figure 3



<sup>1</sup> This is in fact an implication of the stylized theoretical model of a monetary union in Landmann (2011).

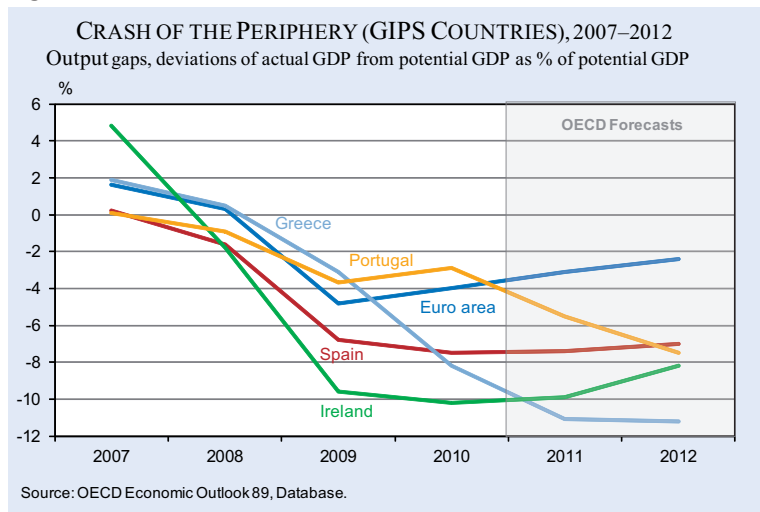
### Conclusion: no game plan in sight

The eurozone may be prone to suffer from rotating slumps by its design. But ill-timed asymmetric shocks have made matters worse. First, the asymmetric shock of converging interest rates has encouraged an inflationary credit-driven boom in the periphery. Ten years on, with the financial crisis acting as trigger and amplifier, the eurozone suffered an even more violent asymmetric shock, this time in the reverse direction. As risk premia returned and the economic boom came to an abrupt end, the GIPS countries were caught in a trap of high debt and lost competitiveness, lacking an adjustable exchange rate and forced to pursue a pro-cyclical fiscal policy. As a result, while the rest of the eurozone currently seems to be crawling back towards macroeconomic balance, the periphery is falling into a deep depression (Figure 4), with no end in sight.

If there is one major lesson from this sorry tale of macroeconomic instability within the eurozone, it is this: the architecture of the EMU lacks an effective macroeconomic stabilization mechanism that would control divergence and limit the size of cyclical fluctuations for the individual member states. As pointed out by De Grauwe (2011), the natural tool to address this problem, national fiscal policies, may in fact not be freely available under the present design of the EMU. Moreover, some monitoring of and action on the growth of credit in the individual economies may well be indispensable. The fiscal rules of the Treaty of Maastricht and the Stability Pact are badly inadequate for the purpose of maintaining macroeconomic balance within the eurozone. Merely tightening them will not do.

In conjunction with macroeconomic stability in the aggregate EMU, the effective control of divergence would go a long way towards preventing the double trap of unmanageable debt and lost competitiveness which the GIPS countries are caught up in right now. Once the trap has snapped, to find a way out is much harder. To say that these countries are now paying for past mistakes is too cheap an answer. It is one thing to tighten the belt to bring spending back into line with income. Yet it is quite another thing to see output and

Figure 4



income depressed far below potential GDP as is happening in the periphery right now. Allowing output to recover without domestic demand rising again to unsustainable levels is only possible with a vigorous expansion of net exports. This in turn requires real depreciation. Needless to say, strong growth of demand on export markets would help as well.

If the periphery is to restore its competitiveness without abandoning the euro, it must deflate or the rest of the eurozone must inflate. Realistically the deflation route is not feasible (with the possible exception of Ireland). Inflation in Germany at a rate two to three percentage points above the European Central Bank's inflation target would not only be feasible, but also defensible, considering that Germany has undershot that target cumulatively by some 10 percent since 1999. However, the ECB does not appear prepared to let this happen.

With their fiscal policies in the grip of austerity and the ECB refusing to lend a helping hand, it is hard to see how the GIPS countries are to escape from their present trap. Nor does anyone appear to have a viable game plan. Can the markets be blamed if they run for cover?

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