

The Euro Debt Crisis

It isn't just fiscal

Clas Wihlborg, Thomas D. Willett and Nan Zhang

Introduction

Understandably, most of the focus on the Greek crisis has been on the immediate problems of funding Greek debt and beginning the necessary process of Greek fiscal retrenchment. Apart from the obvious fiscal excesses in Greece and several other euro countries, the official commentary has tended to focus on the age-old strategy of blame the speculators. There is reason for concern that some officials may be confusing their political rhetoric with reality, however.

We will argue in the following section that financial markets have indeed failed to perform as our models of efficient and far-sighted markets predicted, but the failure was not so much over-reaction during the current crisis but inattention or over-optimism during the earlier stages when massive disequilibrium was building up within the Eurozone. Some of the failure to give strong early warning signals was due to the misleading



Clas Wihlborg (PhD Princeton University) is the Fletcher Jones Chair of International Business at the

Argyros School of Business and Economics, Chapman University, since 2008. He has been on the faculty of New York University, University of Southern California, Gothenburg University in Sweden and Copenhagen Business School in Denmark.



Thomas D. Willett (PhD University of Virginia) serves as Director of the Institute for Economic

Policy Studies and is Horton Professor of Economics at Claremont Graduate University and Claremont McKenna College.



Nan Zhang is currently a PhD student in Economics at Claremont Graduate University. She

has a BA degree in International Business from University of International Business and Economics (UIBE) in Beijing, China, an MBA and an MS degree in Economics from California State Polytechnic University, Pomona.

statistics produced by Greek authorities, which greatly understated the sizes of its fiscal deficits. Indeed it was the substantial revision of these statistics and projections by the new Greek government that was the immediate trigger of the current crisis.

The failure of early warning signals and actions goes much deeper than this, however, and the problem is much worse than just the weak public finances in a number of Eurozone countries. Greece's problem is one of twin deficits – both fiscal and current account – and this problem extends to a number of other euro countries. This has been generally recognised with respect to the fiscal problems and resulting in substantial increases in the risk premia on public debt in countries such as Portugal and Spain, a far from irrational contagion from the wake-up call of the Greek crisis. What must be explained, however, is why Spain, with a relatively low debt to GDP ratio of around 0.5, was hit by the market while Belgium with a ratio as high as Greece's has been spared the market's doubt about ability to repay debt. We argue that the failure of many Eurozone countries to develop adequate internal adjustment mechanisms is at least as important a factor behind the current crisis as the debt problem.

The two problems are to some extent related. The lack of internal adjustment mechanisms reveals itself in loss of competitiveness, an appreciating real exchange rate and a current account deficit. Expansionary fiscal policy is used to dampen employment effects and contributes to the debt problem. While the debate has focused on fiscal problems in the Eurozone, the large current account deficits of some countries have received less emphasis in spite of the relatedness of these deficits.

After a brief review in the following section of the optimum currency area (OCA) theory applied to the euro, we then present an overview of the major perspectives that have been offered on the current crisis. We argue that, as important as the failures of fiscal prudence are, there has been the failure of many Eurozone countries and, thereby, the Eurozone as a whole to develop adequate internal economic adjustment mechanisms. In the section that follows, we present an updated analysis of the operation of the internal imbalances in the Eurozone, which was originally prepared for a conference held in spring 2008 before the Greek crisis broke into the open (see Wihlborg *et al.* 2008). We expressed concern that, rather than finding evidence of substantial adjustment to economic imbalances within the Eurozone, it looked like imbalances were continuing to grow and

that this boded ill for the continued smooth operation of the Eurozone. This analysis has proven to be all too correct. Our updated analysis in the section entitled ‘The internal imbalances: a look at the evidence’ gives some idea of the magnitudes of the economic imbalances beyond the purely fiscal which need to be addressed for the euro to regain its footing. Concluding comments on the need for adjustment, political mechanisms for resolving Eurozone imbalances, and measures to offset the longer-term moral hazard effects of the functional violation of the no-bailout clause are presented in the last section. We offer no speculations on the outlook for the euro, however.

EMU and OCA

The creation of the euro was stimulated primarily by political considerations and, before its formation, many economists argued that the large euro group did not meet many of the criteria developed in the literature on the theory of optimal currency areas (OCAs) for monetary unions to be economically efficient (see, e.g., De Grauwe 1993). One of the most important criteria is that economies in a currency area should have considerable flexibility in terms of factor mobility and/or wage and price flexibility in order to allow economic adjustments without provoking recessions in the absence of the ability to change national exchange rates and, thereby, relative costs. It was recognised by many that this criterion was not met by a number of the euro entrants, but hopes and expectations were expressed that the formation of the currency area would help induce the needed increase in flexibility within and among the Eurozone countries. This hope was reinforced by the development of endogenous OCA analysis. This approach correctly argued that what was relevant for the operation of a currency area were the conditions after, not before, it was formed, and that the formation of the currency area itself would generate movements in the direction of better meeting several of the OCA conditions. This is most clear-cut with the stimulation of trade among members of the currency area. More problematic were arguments that more flexibility in labour markets and better coordination of fiscal policies would also result. These latter arguments, however, did not sufficiently take into account

the political economy forces that would oppose such improvements.¹ Also often overlooked was that not only did endogenous responses

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need to move in the right direction, but these movements needed to be strong enough to substantially improve the workings of the internal adjustment process and reduce the generation of disturbances for which adjustment would be needed.

While there have been some success stories on these scores most of the improvements occurred before the euro was launched as countries strove to meet the entry requirements. Once the euro was in operation, reform fatigue dominated the pressure for further reform in many countries. And ironically, as we will document below, there was a tendency for stronger responses to the competitive discipline of the common currency in surplus countries like Germany than in deficit countries like Greece, thus adding to, rather than reducing, internal imbalances.

An unusually long period during which there was not a need for major adjustments on a major scale helped reduce worries on this score, but it now seems clear that this was an illusion based on ignoring the warning signs of unsustainable disequilibrium that had been building up. Intra-euro capital flows played an important role in this process. It has been widely argued that high capital mobility is helpful for the operation of a currency area since this can help to mitigate the need to adjust to temporary imbalances. This is certainly a possibility, but it rests on a view of financial markets as operating on the basis of far-sighted rational expectations that does not hold up well in light of the large number of currency and financial crises we have seen in recent years.

Rather than offering powerful early warning signals of mounting imbalances, over-enthusiastic financial markets have often provided easy financing that has helped facilitate the continued growth of imbalances that eventually proved to be unsustainable. This was true in a number of previous crises and it now seems apparent that this was also the case with several southern members of the Eurozone. Instead of enforcing early discipline, financial markets showed little early differentiation among coun-

¹ For discussion of these considerations and references to the literature see Willett *et al.* (forthcoming).

tries in the Eurozone, thus weakening rather than strengthening discipline in countries such as Greece.

An overview of interpretations of the crisis

Numerous high-up EU and Eurozone national officials have described the crisis as a speculative attack on the euro, and responded with threats of showing speculators the torture instruments that have been saved for such occasions, and actual or proposed bans on particular forms of speculation against 'sensitive' securities such as national debt or stocks and bonds of major financial institutions. This is a classic case of blaming the messenger. What were termed speculative attacks on the euro and the European project started as quite sensible increases in the risk premia needed to get investors to buy Greek debt. In light of the emerging picture of Greek finances, such adjustments were long overdue, not sudden capricious speculative attacks. As is often the case, financial market participants did not react with much foresight until a triggering event occurred.

The big failure of the financial markets was to not register early warning signs of the underlying deterioration of a number of euro countries' financial positions. This failure of financial markets to be sufficiently critical at early stages is not something new. The Asian and Argentine currency and financial crises are important examples of the phenomena, as is the sub-prime crisis itself.

Official claims that financial markets have behaved imperfectly are quite true, but they generally miss the real imperfection. It hasn't been primarily that short-sellers in exotic instruments such as credit default swaps have launched massive unjustified attacks on Eurozone governments. Undoubtedly there has been some such activity, but such markets are a small fraction of the direct markets for government debt and have shown no sign of surges in growth in recent periods. In the euro case this general tendency towards excessive optimism or obliviousness in early stages of financial excesses was exacerbated by a widely shared tendency to not differentiate among Eurozone members in the pricing of Eurozone debt until fairly recently and, thereby, to exaggerate the benefits of euro membership for weaker members. Now, however, the market has awakened. It is quite possible that market sentiment swung from excessive optimism to excessive pessimism with respect to the ability of some coun-

tries' ability to repay their debts. This wouldn't happen in the far-sighted rational expectations, efficient market models that are so attractive. However, there exist massive amounts of empirical and theoretical work in mainstream finance as well as in the field of behavioural finance that markets often deviate from the predictions based on rational expectations (see Fehr & Tyran 2005).

Given all of the known and unknown unknowns that are relevant for the correct pricing of government debt for Greece, Spain, Portugal, etc., there can be a considerable range of reasonable opinion about correct risk premia. Sovereign debt risk depends on a combination of economic and political factors affecting a country's ability and willingness to service its debt. Adding to the uncertainty is the lack of formal procedures for enforcement and restructuring of debt contracts.

Recent market prices seem more in line with correct pricing than do the prices implied by the plethora of official statements that a Greek default is inconceivable and that the possibility of debt restructuring is not on the table. We haven't seen any careful analysis to support such statements,

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while a number of independent and investment-house analysts have projected that even with the massive liquidity support that has been offered, a Greek debt restructuring within a few years is highly likely. The liquidity problem in markets for Greek debt is in fact perceived as a solvency problem.

Rather than having the intended effect of calming markets the failure of most Eurozone officials to acknowledge the potential solvency problem has contributed to a widespread perception that they have their heads in the sand. Such tendencies of decision makers to fail to acknowledge unpleasant possibilities even to themselves have been well documented in the literature in cognitive psychology and neuroscience under the labels of cognitive dissonance and confirmation bias (see Baron & Byrne 2004; Oswald & Grosjean 2004). False, or at least questionable, mental models have undoubtedly also played a major role. Many euro officials seem to believe that a Greek default or restructuring would imply an end to the euro. While undoubtedly painful, there is no good economic reason to

believe that this would be the case. Within the United States, several states face debt problems of the same magnitude as the mentioned Eurozone countries, but these problems are not viewed as threats to the dollar currency area.² In the 1800s several US states defaulted on bonds that were held heavily by foreigners.

Official statements that the Greek problem was a threat to the euro became somewhat of a self-fulfilling prophecy, however, as the euro began to weaken substantially. Some of this was no doubt due to an understandable fall-off of capital inflows into the Eurozone. The combination of disagreements among Eurozone governments and the perceived failure of many officials to have a clear grasp of what was going on have, not surprisingly, led many market participants to re-examine their assumptions about the future of the euro.

It is clear that the Growth and Stability Pact was insufficient to limit severe fiscal imbalances within the Eurozone. To some the current situation supports the view that currency union without political union, or at a minimum fiscal union, is bound to fail so that the Eurozone is at a fundamental decision point where it must be substantially strengthened or abandoned. Others are more optimistic that a new commitment to fiscal rules will be enforced this time.

To be credible, a new fiscal charter for the euro would almost certainly have to include some form of debt restructuring mechanism as urged by the German government. Such a mechanism would amount to recognition that Eurozone markets for sovereign debt are not homogeneous in terms of risk. Interest rates on government debt would differ accordingly.³ While legal purists can argue that the Eurozone's no-bailout rule has not been violated on the grounds that the loans to Greece are at interest rates above those on some euro governments' debts, that does little if anything to avoid the undermining of any functional credibility that the rule may

² Bloomberg Business Week reported on 19 July 2010 that bond markets assessed the risk of Illinois and California as higher than the risk of Portugal. Also Michigan, New York and New Jersey were considered riskier than Ireland and Spain.

³ Several proposals have been developed for orderly sovereign debt restructuring with the objective of enhancing market discipline. Already in 2002, the IMF proposed a formal debt restructuring mechanism for sovereign debt. Many difficulties associated with such a mechanism were pointed out in the debate. As a result, an operational proposal was never implemented. In the wake of the recent turmoil, several proposals have emerged with the objective of creating greater predictability with respect to recognition and allocation of losses on European sovereign debt. These include a benchmark debt to GDP ratio for each country that would be supported by the Eurozone partners, while debt above this ratio would be explicitly risky by not being supported. See Gros and Mayer (2010), Delpla and von Weizsäcker (2010), European Shadow Financial Regulatory Committee (2010) and Milne (2010).

have had. Thus, in order to avoid a massive moral hazard problem, and thereby to impose a degree of market discipline on Eurozone governments, any new enforcement procedures for fiscal rules are likely to need to be supported by provisions for less disorderly debt restructuring should the rules fail substantially again. We will return to this issue in the concluding section.

The response of Greece to the conditions of the rescue package including cuts in pension benefits and public-sector salaries may be seen as evidence that sufficient fiscal discipline can be imposed if necessary. Other Eurozone countries have also responded to the crisis by cutting spending and, to a lesser degree, increasing taxes. As a result, the interest rates on relatively short-term government debt have fallen. However, longer-term rates in the secondary markets for several Eurozone countries still reveal perceptions of a substantial risk of longer-term default or rescheduling. Thus, there is still great scepticism in the bond markets with respect to the ability of Greek and other problem countries' politicians to see through the further fiscal cuts that will be needed over the next several years to meet the conditions imposed on Greece. This scepticism is shared by many independent economists.

The scepticism with respect to the ability of several countries to impose sufficient fiscal discipline in the longer term can be explained by another Eurozone failure that is probably as serious and perhaps even more difficult to correct: the failure to implement sufficient structural reforms to substantially increase the flexibility of Eurozone economies and hence reduce the cost of economic adjustment within the Eurozone. As noted in the previous section, and demonstrated by the evidence we present in the following section, proponents of a large Eurozone were much too optimistic that entry into the common currency would by itself induce the needed structural changes to provide an efficient internal adjustment mechanism.

The real exchange-rate developments presented below suggest that, rather than correcting internal imbalances within the Eurozone, for most of the Eurozone's lifetime imbalances grew. While this facilitated the early 'success' of the Eurozone in avoiding the painful adjustments that some economists had predicted, it has resulted in the substantial internal current account and competitiveness imbalances that the Eurozone now faces. Not only are these imbalances a major problem in and of themselves, they seriously worsen the problem of bringing about the needed

fiscal adjustments in countries like Greece. Continued recession over a long period makes it far more difficult to bring fiscal accounts into balance both economically and politically. For a number of the potential target countries for contagion from Greece, the problem is not just fiscal imbalances but also a dearth of private-sector savings relative to investment. To keep fiscal adjustments from undermining domestic growth the economies must be stimulated from the supply side. Excessive private-sector leverage implies that countries like Greece cannot be expected to stimulate their economies by increasing consumer spending. The alternative, which is necessitated anyway by the combination of large current account deficits and a substantial fall-off of capital inflows is a major relative cost adjustment and, thereby, an improvement in the current account balance.

Such improvement will require major downward adjustments of real wages. Any improvements in productivity will of course result in corresponding reductions in the needed reductions in real wages. The needed adjustments in deficit countries can, in the short term, also be reduced by increased spending in surplus countries. This is the age-old question of how to share adjustment responsibilities between surplus and deficit countries. At the global level in recent years this issue has received most attention with respect to the imbalances between China and the US. There is a similar problem within the Eurozone, with Germany and Greece being the poster children, but by no means the only countries involved. We return to this issue in the concluding section.

The internal imbalances: a look at the evidence

To evaluate the internal imbalances in the Eurozone, we observe some important economic indices among major Eurozone countries. In our analysis, we make an assumption that if the adoption of the euro promotes internal balance, then indices in different euro countries will at least show some level of mean reversion to the group average after the euro adoption. Of course, overall medium-term payments equilibrium does not require zero current-account balances. What is required is that current accounts and net capital flows match. For a comprehensive analysis of the operation of the intra-euro adjustment process, one would need to estimate equilibrium current account and capital flow positions. That is an enormous undertaking and there is some question whether such positions can

be estimated with enough precision to really be useful for policy analysis. As a first-cut look at this issue we start with the assumption that the initial payments positions within the Eurozone were such that, on average, internal balance required that large current account imbalances, both surpluses and deficits, needed to be reduced rather than increased. As in our previous analysis (Wihlborg *et al.* 2008), we select annual data on price and cost indices (consumer and producer prices, unit labour costs and price convergence indicators), labour productivity, real exchange rates and current account of the euro countries beginning from 1999, and update the data to the most recent years of 2008 or 2009 upon their availability. We focus on 12 euro countries that adopted the euro in the early years (1999 to 2001), and exclude the recent new member states. The 12 euro countries are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

When it comes to the analysis of price indices, the Balassa–Samuelson effect is of relevance. This assumes that the tradable goods will not vary greatly in price by location. When there is considerable labour mobility, then skill adjusted wage rates should also tend to equality. If productivity growth occurs primarily in the traded goods industries, then prices will tend to rise in the non-traded goods sector by the differential in the rates of productivity growth. Thus higher productivity growth will lead to high inflation in a consumer price index (CPI) that includes non-traded goods and higher CPI index than a producer price index (PPI) that includes mainly tradable goods. The Balassa-Samuelson effect implies in our analysis that continuously diverging price levels can be consistent with equilibrium if they are being driven by differentials in productivity growth. Thus we need to look at more than just divergences in consumer prices.

The price and cost indices we use include consumer price index (CPI-all items), producer price index (PPI-manufacturing), unit labour costs (ULC-manufacturing), as well as the price convergence indicators that are coefficients of variation of comparative price level index for final household consumption in percentage. We also include a labour productivity index that measures GDP per hour worked in order to see whether the Balassa–Samuelson effect can be observed.

A real effective exchange rate (REER) index is constructed by the ECB. The REERs are weighted averages of real bilateral euro exchange rates against the currencies of the euro countries' main trading partners.

The ECB also publishes REER12, defined as the real effective exchange rate for each country based on the trade weights within the 12-country euro group. We use REER12s in our analysis as they reflect movements of competitiveness within the Eurozone. Two kinds of REER12 are analysed: the CPI-based (REER12-CPI) and ULC-based (REER12-ULC) real effective exchange rate. Finally, we include the current account balance as a percentage of GDP for each Eurozone country, since we expect changes in real exchange rates to be reflected in current accounts.

The above indices originally take different years as the base year respectively (for example, CPI, PPI and ULC take 2005 as the base year; REER12s take 1999, and labour productivity takes 2000 as the base year). For the convenience of comparison, we make the year 2000 base year, except for PPI, for which the base year is 2002 due to problems of data availability. We illustrate the movements of those indices in part a of Figures 1–7.⁴

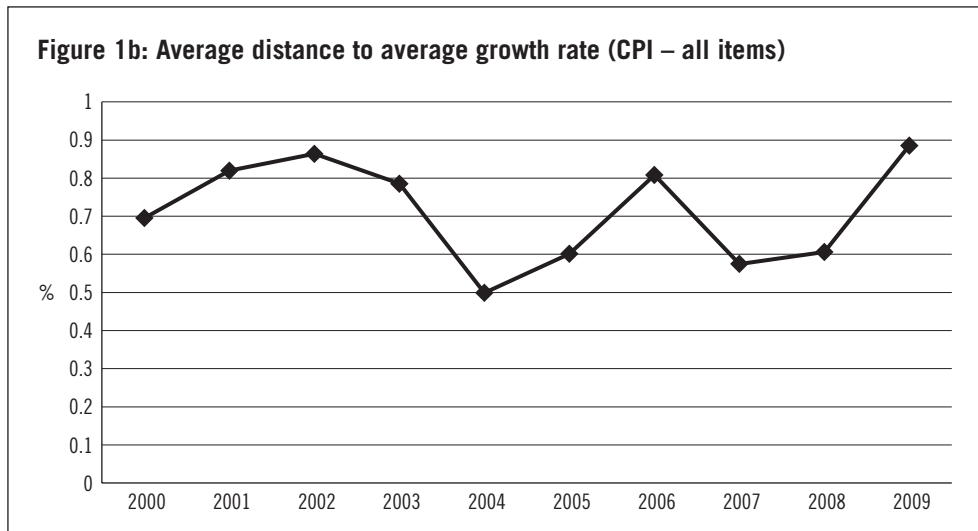
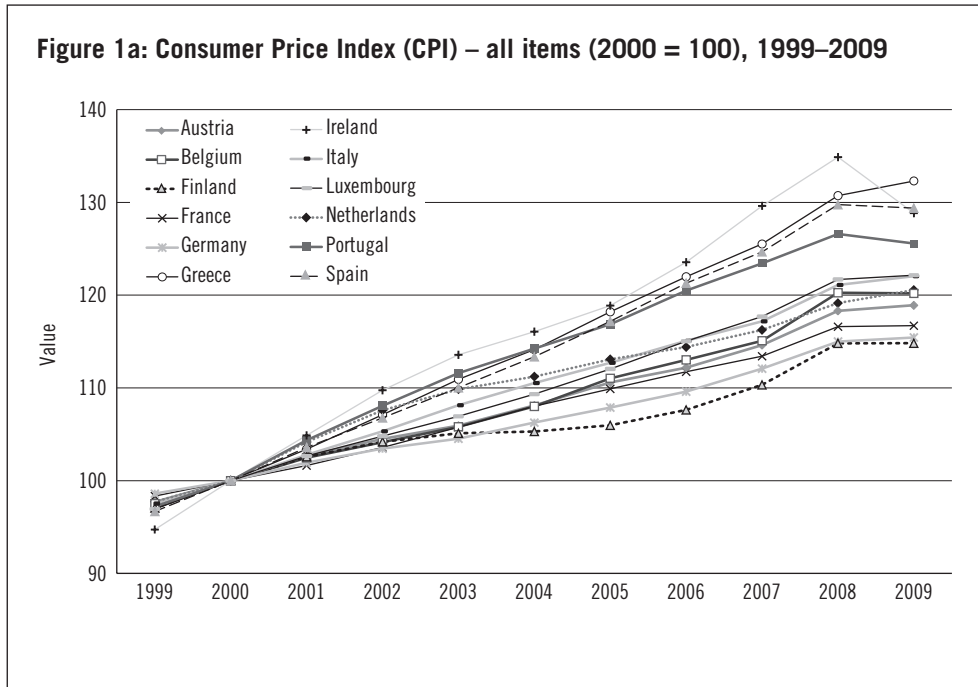
Part b of the same figures shows the Eurozone average distance from the Eurozone average growth rate for each index.⁵ This average distance can be interpreted as a measure of the internal balance or imbalance within the Eurozone. A rough measure of the power of the internal adjustment mechanisms within the Eurozone would be given by the extent and speed of mean reversion with respect to each particular index. Of course, patterns must be interpreted with care since not all initial positions were ones of equilibrium.

In Figure 1a, showing CPI developments, we observe that Ireland, Greece, Spain, and Portugal have relatively high average CPI inflation, and Finland, Germany and France have relatively low CPI inflation. In 2009, most countries, including Greece, had lower inflation relative to the previous years. Ireland, Spain and Portugal even deflated in this period. This might be a reflection of the contraction influenced by the current global financial crisis. Figure 1b shows fluctuations in the average Eurozone imbalance in inflation rates. There is no indication of convergence. The

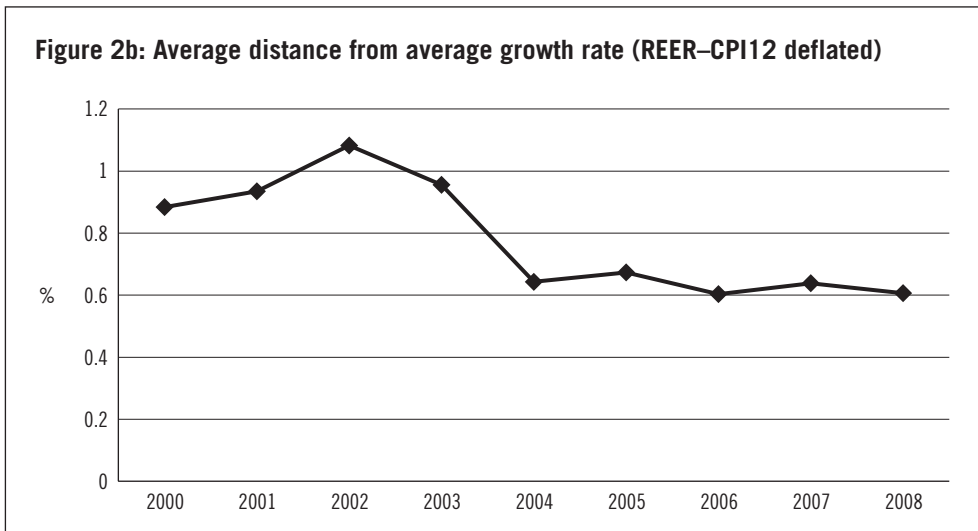
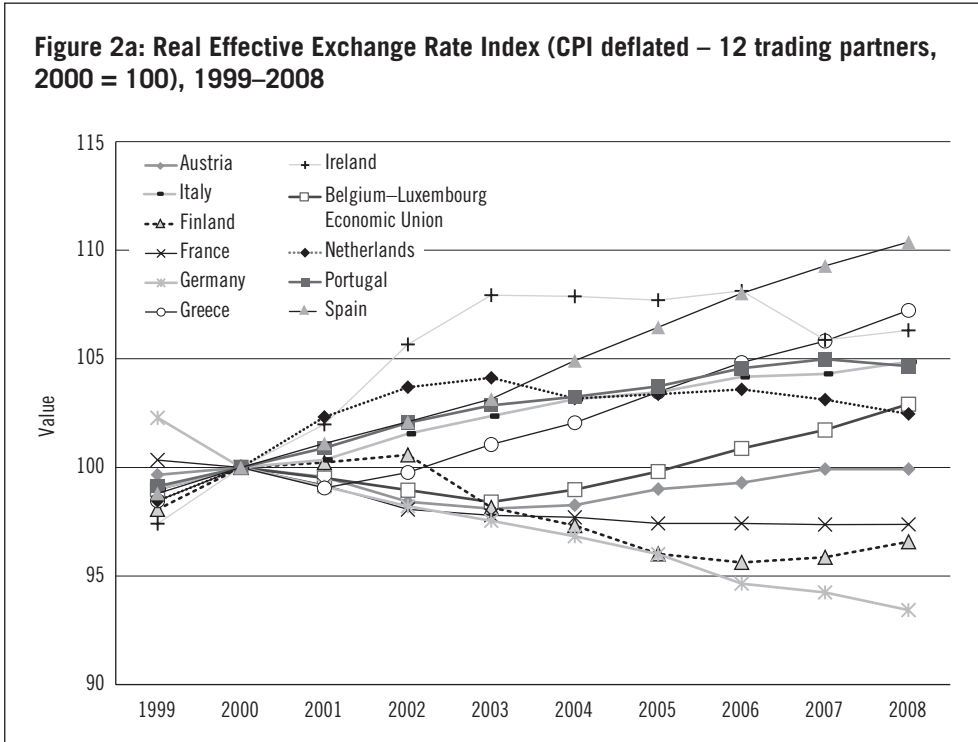
⁴ Source for Figures 1–7: CPI, PPI, ULC and current account as percentage of GDP are from OECD (May 2010); REERs, price convergence indicators, labour productivity index, government deficit and surplus are from ECB Eurostat (March 2010). The average distances to average growth rates are calculated based on the above data.

⁵ For each index, the annual growth rate is calculated for each country. Then the average growth rate among the euro countries is calculated (the average may be calculated based on different sets of countries due to data availability). For each country, we obtain a distance between its growth rate and the average for the euro countries. Finally, we take the average of this distance.

average distance to the average growth rate of CPI started from 0.70% in 2000 to 0.90% in 2009, increasing 0.2% in ten years with ups and downs in between.

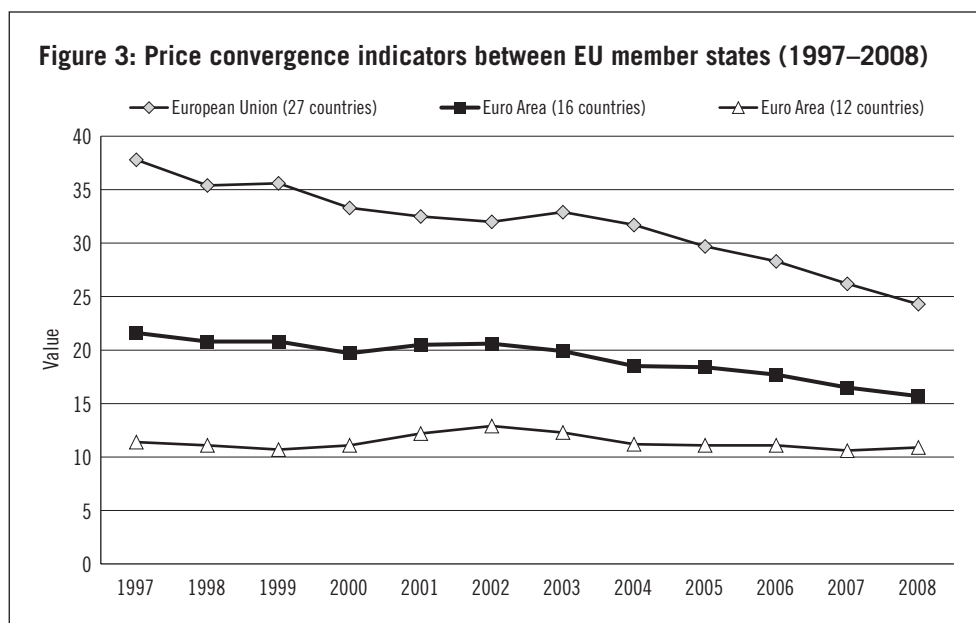


The CPI-based real exchange rate (REER-CPI12) in Figure 2a tells a similar story of imbalance, except that the Eurozone average distance of real exchange rate changes in Figure 2b show some convergence.



2a shows that Ireland, Spain and Greece have appreciated, and Germany and France have depreciated largely relative to an average of their trading partners. Among those countries, Greece appreciated more and Germany depreciated more in 2008 than in previous years. The data for the CPI-based real exchange rate suggest that there has been some operation of internal adjustment mechanisms within the group of euro countries. However, this alone might not guarantee each country's internal adjustments in the short term, especially for countries such as Greece, which have suffered in current account deficit for a long time.

Another index related to CPI is the price convergence indicator, which is measured by the coefficient of variation of comparative price level indices for final household consumption in percentage. The indicator depicts the convergence or divergence of price levels in the country group. The higher the value, the lower is the degree of price convergence between the countries. Figure 3 shows that there has been considerable price convergence among the full 27 current EU members as the coefficients of variation decreased from 35.6% in 1999 to 24.3% in 2008. However, comparing this convergence trend among the 27 with the lack of convergence among the first 12 EMU members (10.7% in 1999 vs 10.9% in 2008), it is evident that the convergence among the 27 comes primarily from developments in



the non-euro countries. So these price convergence indicators show little movement towards decreased dispersion within the Eurozone and thus fewer internal balance adjustments.

Some research (Andrén & Oxelheim 2006, for example) found that producer prices in the Eurozone behave quite differently from consumer prices. This observation is consistent with the Balassa–Samuelson effect if productivity growth rates differ. Andrén and Oxelheim focused primarily on the initial transition to the euro and found that, in the run-up to the euro, there was considerable convergence in producer prices but that, after the euro was launched, this process slowed down. As their data ran only through 2005, it is important to see if we can get additional clues from the later data now available.

Figure 4a shows the movements in Eurozone producer prices for manufacturers. Taking 2002 as the base year, Luxembourg, Greece and the Netherlands have relatively high PPI inflation, and Ireland, Finland and Germany have relatively low PPI inflation. In 2009, PPI inflation in most countries decreased sharply. A look at the Eurozone average distance in Figure 4b shows that the distances decreased by 0.3% from 2000 to 2009, yet changed in a relatively stable fashion during the whole period. There was a sharp decrease from 2.9% in 2000 to 1.05% in 2001, then the average distances went up and down around 1.5%, before rising to 2.6% in 2009. This figure shows that there are very limited signs of mean reversion in PPI manufacturing, even signs of diversion in recent periods.

Figure 5a shows the development of each euro countries' labour productivity index. We observe that there is relatively high average productivity growth in Ireland, Greece and Finland, and relatively low productivity growth in Italy. In 2009, productivity decreased in many countries. Looking back at the CPI inflation data in Figure 1a, we know that Ireland and Greece have relatively high inflation rates, Finland has relatively low CPI inflation, while Italy has intermediate CPI inflation. We found similar results in the CPI deflated REER12 in Figure 2a. Turning to the data for PPI inflation in Figure 4a, we observe that Greece had high PPI inflation as well, but Ireland did not. Thus, Ireland's CPI index and real effective exchange rate confirm to the Balassa–Samuelson hypothesis, but we cannot say the same for Greece, Spain, Portugal and other relatively high-inflation countries. Finland's low inflation is not consistent with this hypothesis. So far, the productivity can help explain the consistency with

Figure 4a: Producer Price Index (PPI) – manufacturing (2002 = 100), 1999–2009

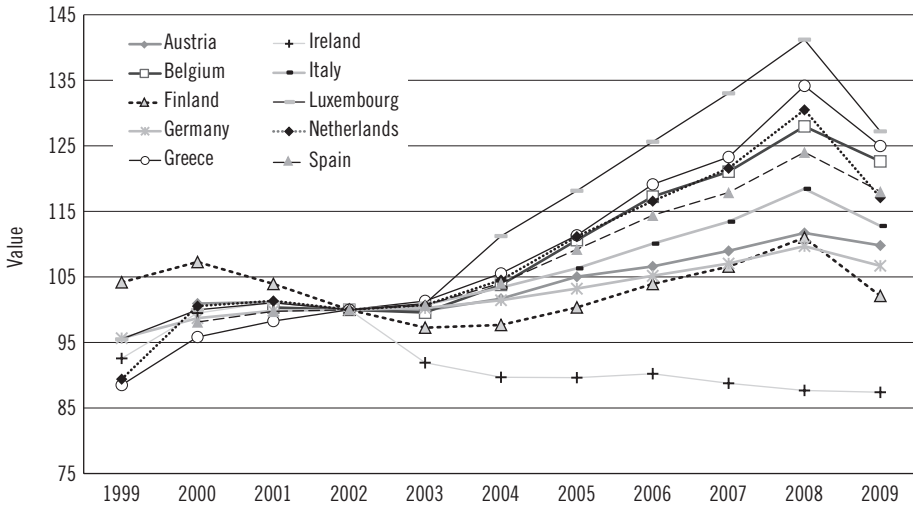
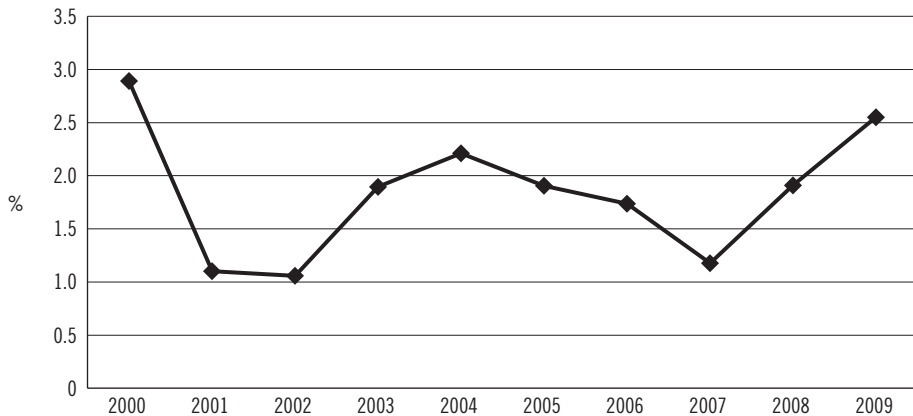
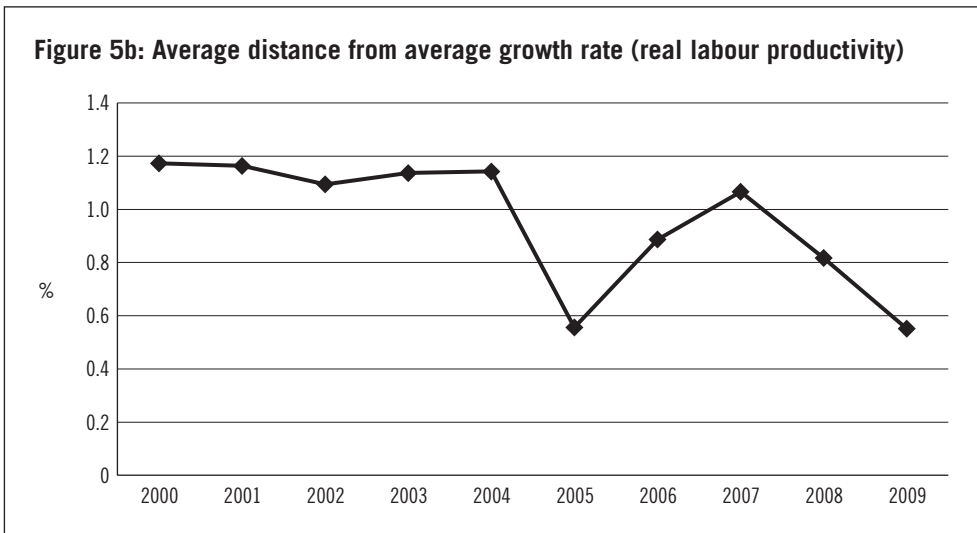
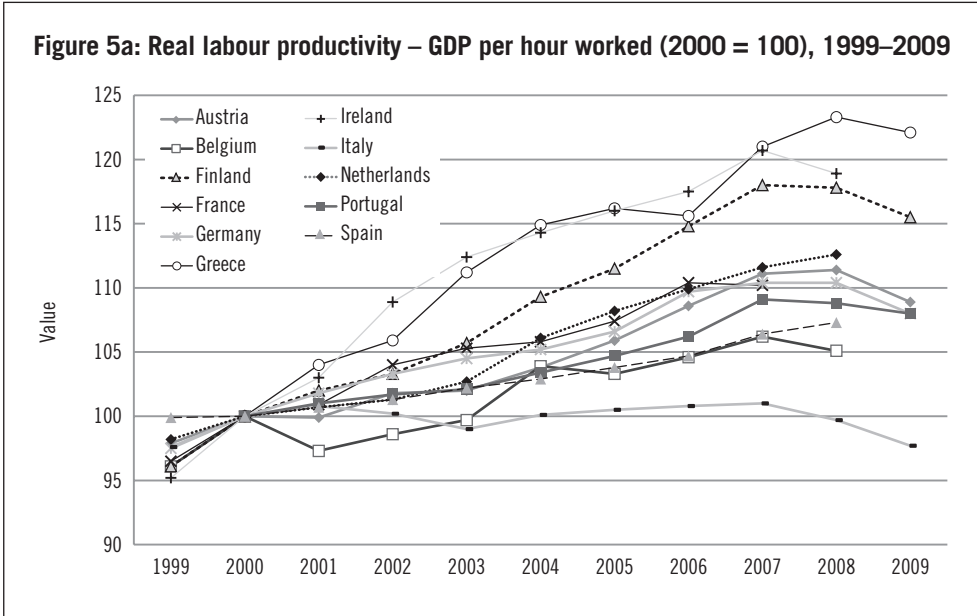


Figure 4b: Average distance from average growth rate (PPI–manufacturing)



equilibrium for a limited number of countries. As for the evidence of mean reversion in labour productivity, Figure 5b shows a decreasing trend in distances. Starting from 1.17% in 2000, the average distances from the growth average were relatively stable until 2004. They then decreased sharply to 0.56% in 2005. After rising up to 1.1% in 2007, they went back again to 0.55% in 2009. So, the data on labour productivity support the



view of some degree of mean reversion. The common currency does not constrain relative productivity developments, however, as long as relative wage costs reflect productivity differences.

Therefore, we now turn to the evidence on relative cost levels of production adjusted for productivity, noting first in Figure 6b that there are strong indications of divergence of labour cost developments within the

Eurozone. Starting from 1.87% in 2002, the Eurozone average distance from the mean growth rate of unit labour costs increased to 3.37% in 2002, and then stayed around 2.6% from 2005 to 2008, before surging to 4.26% in 2009. There is a total increase of 2.39 percentage points during these ten years. This indicates that the internal adjustment mechanism in labour cost within the euro countries doesn't seem to work powerfully.

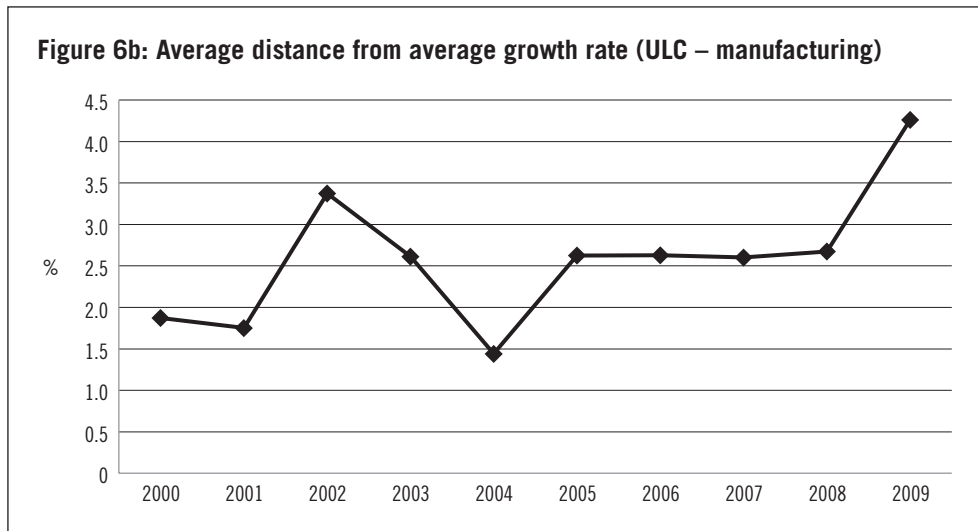
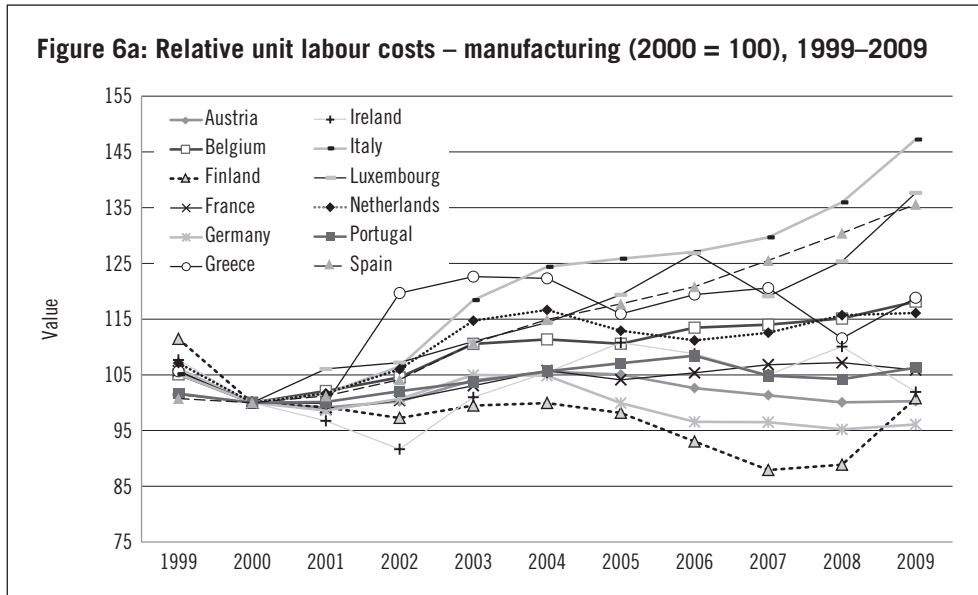


Figure 6a shows the movement of relative unit labour costs in manufacturing in individual countries. These costs have increased relatively rapidly on average in Italy, Spain, Luxembourg and Greece, while favourable cost developments are exhibited by Finland and Germany. In 2009, the unit labour costs for many countries show higher growth than the previous year, except for a few countries such as France and Ireland. The labour cost developments in Greece seem to be consistent with the Balassa–Samuelson theory, while the developments in Italy show an opposite effect. However, the magnitude of the increasing labour cost in Greece in 2009, for example, suggests that the Balassa–Samuelson effect is unlikely to explain the developments.

Reflecting movements of most unit labour costs, the real effective exchange rates (REER-ULC12) in Figure 7a show Ireland as the strongest appreciation followed by Spain, Italy and Greece. Italy seems to be different from the other countries, showing an appreciation in its real ULC deflated exchange rate while its CPI and PPI inflation rates are relatively modest. One possible interpretation is that Italian firms have been less able to compensate for cost increases in their prices. The depreciating countries include Germany and Austria. This pattern is largely consistent with the CPI deflated real exchange rate changes. In 2009, Ireland appreciated much more than before, while Germany continued to depreciate.

Looking at the average distance in Figure 7b, the indications of mean reversion towards the end of the period are limited, although the picture is more favourable than the picture for relative cost levels in Figure 6b. There is some evidence of mean reversion for the whole period, but diversion in the recent period in 2009. The internal balance adjustments are not reflected strongly in the behaviour of ULC deflated real effective exchange rate. The more favourable picture of mean reversion in real effective exchange rates relative to the picture for unit labour cost developments in Figure 6b indicates that changes in trade patterns compensate to some extent for divergent cost developments.

According to the data presented above, only the CPI deflated REER12 and the real labour productivity show signs of mean reversion on average for the whole period. The ULC data for manufacturing indicate significant diversion for the whole period, while the rest of the price indices indicate diversion in recent years. On the whole, the behaviour of various indices

Figure 7a: Real Effective Exchange Rate Index (ULC–total economy deflated – 12 trading partners, 2000 = 100), 1999–2008

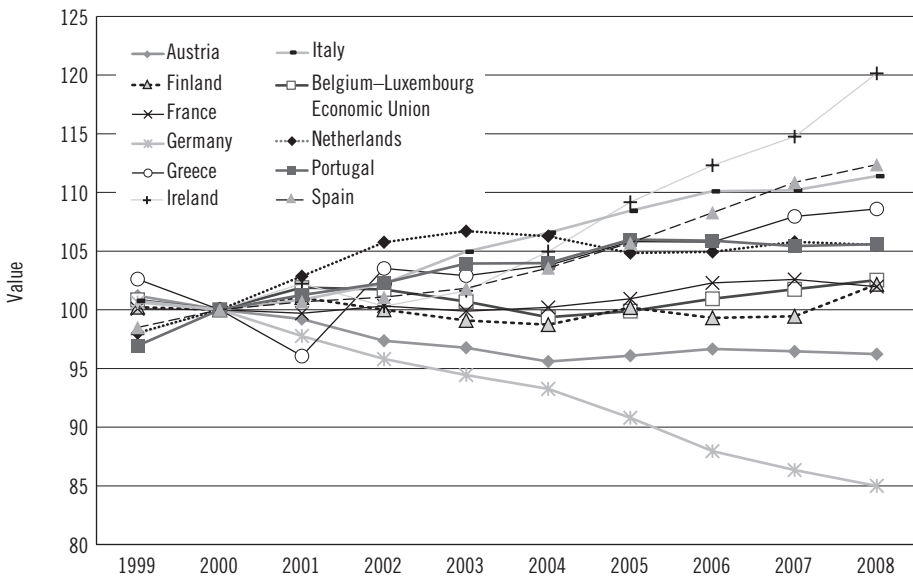
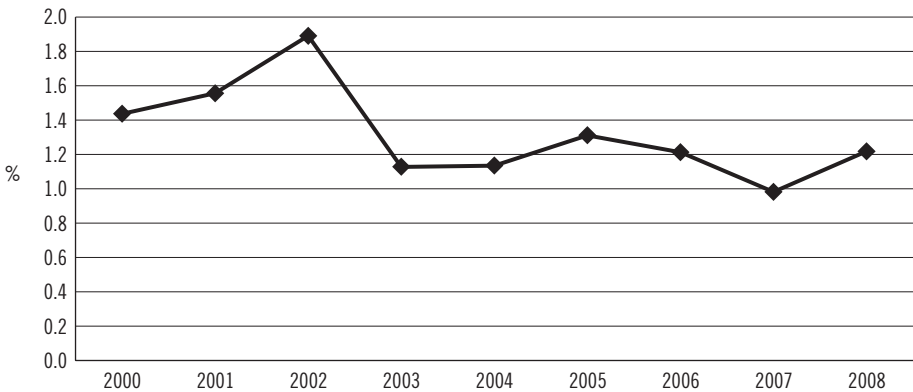


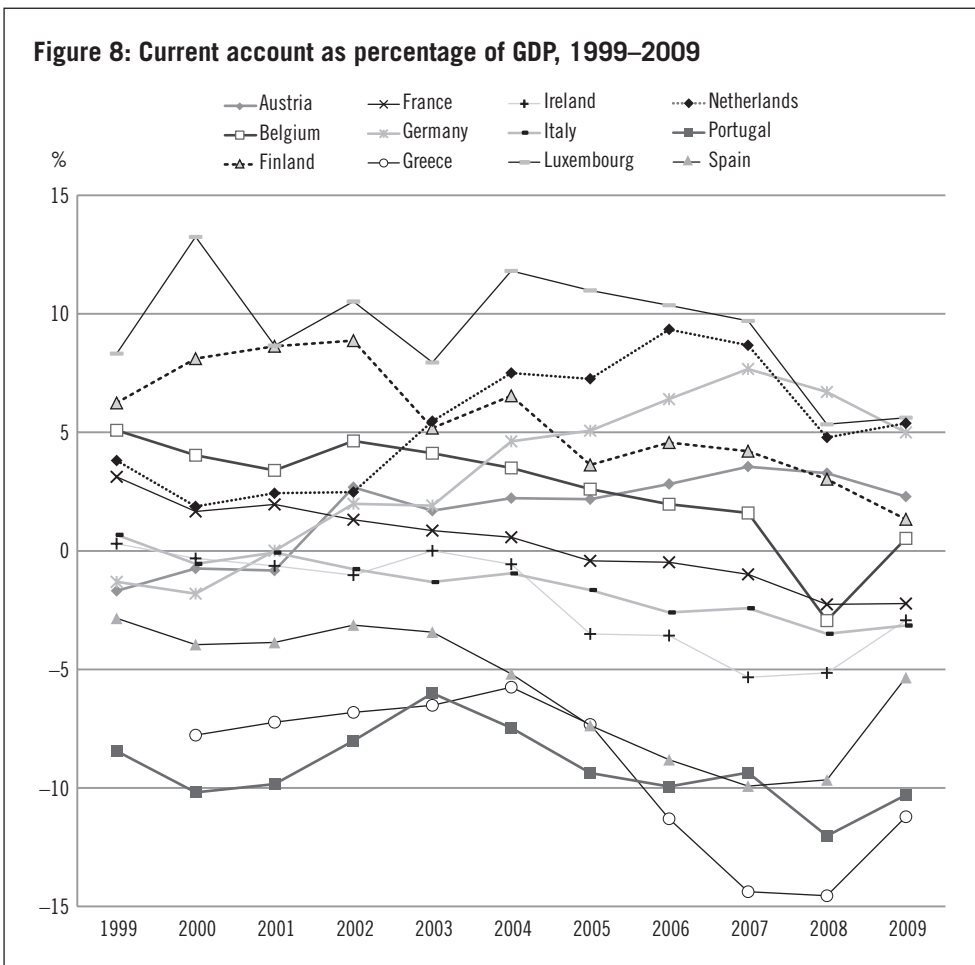
Figure 7b: Average distance from average growth rate (REER–ULC12 total economy deflated)



is not consistent with substantial mean reversion, although we cannot rule out the possibility of some weak adjustment mechanisms at work.

Last but not the least, we look at the behaviour of current accounts to gain additional insight into the internal imbalance of the euro countries.

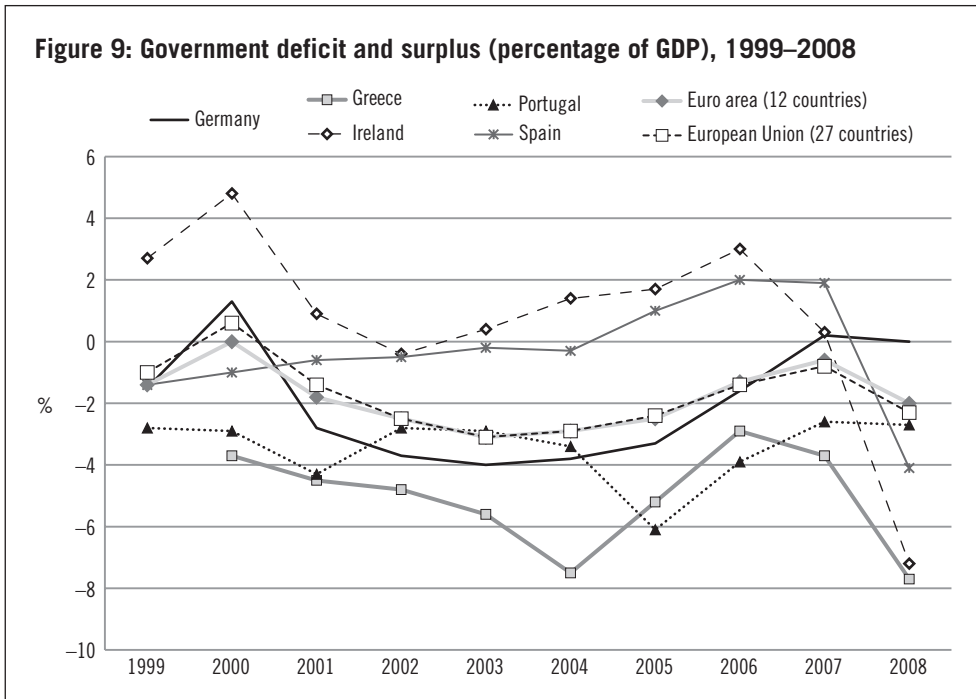
Figure 8 shows the movements of euro countries' multilateral current account balances. The figure suggests that there may be considerable cause for concern that intra-Eurozone adjustment mechanisms have not worked effectively to contain divergences of competitiveness. Germany, the Netherlands and Austria seem to have increasing surpluses over the years, except in the recent period of 2009. Germany, in particular, is a country with relatively favourable real exchange rate developments. Greece, Portugal and Spain continually suffer from a negative account balance, while Greece and Spain keep having relatively unfavourable real exchange rate development. Greece has shown alarming increases in its deficit, up to around 15% of GDP in 2008, though its current balance improved in 2009 as in many other negative countries. Though there have



been reversal movements in 2009 that might be influenced by the current crisis, the overall increasing deficit or surplus in the euro countries suggests a lack of powerful internal balance adjustments.

As Greece suffers from substantial twin deficits, the lack of price and cost adjustment towards the Eurozone average plays an important role. Had the internal adjustments worked successfully, the unfavourable competitiveness and the long-lasting large current-account deficit in Greece might be improved and the government would be under less fiscal pressure. The reality raises serious challenges. While having a significant current account deficit, Greece's government deficit remains far above the average for EU countries. In 2008, the deficit reached almost 8% of the country's GDP (Figure 9).

The analysis of price and real exchange rate developments helps explain why market participants consider Spain a relatively high-risk country in spite of its relatively favourable debt to GDP ratio, while Belgium and Italy, with higher ratios, are considered less risky. Spain – along with Portugal, Ireland and, to a lesser extent, Italy – have had the most unfavourable developments of prices, costs and real exchange rates.



The decline in competitiveness of these countries indicates that they will face greater problems generating the required tax revenues to service government debt and the required current account surpluses to service debt to foreigners.

Concluding comments

There has been much commentary about deteriorating relations between Germany and many of the other countries in the Eurozone, especially France. Germans are understandably irked by charges that, without their delay in agreeing to major financing for Greece, the escalation of the crisis could have been avoided. This interpretation can be sustained only if most of the current ‘speculation’ is unjustified. As argued above, we find such views to be highly questionable. There is also a popular view in Germany that refuses to see any connection between its high level of competitiveness and Greece’s problems. This goes too far.

The analysis of price and real exchange rate developments helps explain why market participants consider Spain a relatively high-risk country in spite of its relatively favourable debt to GDP ratio, while Belgium and Italy, with higher ratios, are considered less risky.

We are quite sympathetic to the view that Greece deserves the primary blame for its mess. But Germany is not entirely free of any responsibility. It deserves blame, along with France, for its contribution to undercutting the effectiveness of the Growth and Stability Pact that helped facilitate Greece’s fiscal irresponsibility. Its other responsibility, however, comes not from doing wrong, but by taking more seriously than most euro countries the injunction that joining an area of fixed exchange rates greatly increased the need for improving the internal flexibility of economies. As discussed above, it is ironic that in general it was the surplus countries that carried out more of the responses pointed to by endogenous OCA theory, while it was the deficit countries that did the least. Thus, in the first decade of the euro, endogenous responses appear to have done at least as much to worsen imbalances within the Eurozone as they have done to help reduce them.

Payments imbalances are in one sense always mutual. The issue of how to share responsibility for adjusting these imbalances is an ongoing one. A number of economists have argued that Germany has an obligation to help with the adjustment of mutual imbalances within the Eurozone by expanding domestic demand more rapidly. Indeed some have even argued that through its large current account surplus Germany is in effect following a beggar-thy-neighbour policy. There is no consensus from economic analysis of the optimal distribution of adjustment responsibilities between deficit and surplus countries, and we do not attempt to resolve the issue here. We stress, however, that this adjustment issue is one that the Eurozone must face if it is to thrive.

In a currency union the overall rate of money expansion will influence this division, with slower growth putting more burden on deficit countries. Large capital flows into countries with current account deficits can allow considerable disequilibrium to build up before financial markets sometimes start to worry, giving rise to the type of situation faced in the Eurozone today. Since we have seen that private capital flows cannot be relied upon to ensure that serious disequilibrium does not build up, it is important that Eurozone governments develop a more effective surveillance mechanism that focuses on current account and relative cost conditions as well as fiscal imbalances.

The government debt crisis in the Eurozone has led to calls for increased fiscal coordination, and stronger enforcement of limitations of government deficits and debt levels as envisioned in the Maastricht Treaty. The political problems of achieving agreement on an effective mechanism for fiscal policy coordination are large, however. To alleviate fears that one or more countries must abandon the euro, reforms of the stability pact would have to be accompanied by reforms of two types.

1. The principle of no bailout of a country with repayment problems needs to be made credible to avoid moral hazard and to impose market discipline on governments' fiscal policies. The German government's call for development of a sovereign debt resolution mechanism caused consternation among some euro governments. To pretend that something can't happen, doesn't mean that it can't.

2. Mechanisms for adjustment of divergent cost and price developments within the Eurozone are required to prevent severe and lasting imbalances of competitiveness and current account imbalances.

The large EU–IMF rescue package for Greece and other potential Eurozone users, de facto violating the no-bailout rule within the Eurozone, has helped stabilise the situation in the short term, but unless combined with other reforms, it is likely to reduce fiscal discipline in the future. The conditionality linked to the rescue package for Greece and the commitment of the current Greek government (which inherited the fiscal mess) to take painful actions to bring the budget under control suggest that the bailout hasn't generated a major problem of moral hazard in the short term, but the market reaction to the package indicates that there is great scepticism with respect to Greece's ability to carry out the later stages of the required fiscal adjustment.

One major problem is that the fiscal adjustments are likely to have deflationary effects that will worsen unemployment and make further fiscal improvement more difficult. Even apart from balance of payments financing issues, Greece would need to improve its competitiveness and current account position to help cushion the deflationary effects of fiscal contraction. Success in this area is quite likely to prove to be a necessary condition for fiscal adjustments to continue to be implemented over the medium term. Scepticism on this score is one of the reasons that the credibility of political mechanisms for fiscal discipline is not high.

One way of strengthening fiscal discipline is to make clear to market participants that high government debt levels are not supported by the Eurozone as a whole. Such statements lack credibility after the Greek bailout package, but a simple reform with respect to debt restructuring can enhance this credibility. Following the European Shadow Financial Regulatory Committee's proposal,⁶ the mechanism would include a Eurozone guarantee of debt up to a benchmark level relative to GDP combined with an explicit contractual clause stating that the government issuing bonds may renege fully or partially on debt above the guaranteed level. The partial guarantee by the Eurozone would enhance the credibility that the guarantee is incomplete. Thereby bond markets are likely to

⁶ See note 3 above.

demand a risk premium on government debt above the benchmark level and the risk premium would be related to market participants' perception of the government's ability and willingness to service its debt above the benchmark.

An important responsibility of a European Debts Surveillance Authority would be to set the benchmark for the Eurozone guarantee for individual countries. The benchmark could be set according to each country's economic ability to service debt. Thereby, the benchmark would be higher for a country with well-functioning mechanisms for cost and price adjustment. Incentives for individual countries to implement reforms to enhance labour market flexibility and product market competition would be strengthened.

Based on the first ten years of the Eurozone's existence, one can be pessimistic about government's responsiveness to market incentives. Many economists thought that reforms enhancing labour market and wage flexibility would follow in the wake of an irrevocably fixed exchange rate within the currency union. Few Eurozone countries have implemented substantial reforms, however, in spite of the increasing differences in cost and price levels within the Eurozone. The lack of responsiveness to evidence of imbalances may to some extent depend on the perception of unlimited capacity to borrow based on an implicit Eurozone guarantee. The benchmark described above could reinforce incentives for structural reforms as well as fiscal discipline.

Financial markets are not the primary villains in the Eurozone crisis, but they clearly cannot be counted upon to always be equilibrating forces in the short term. There has been much discussion of the need to develop, and have policy officials pay attention to, better early warning systems for financial crises, but within the Eurozone there is an equal need for the development of an effective surveillance mechanism for intra-euro payments positions, and the sources of imbalances in labour and goods markets. The proposal above for a European Debt Surveillance Authority amounts to recognition that the Greek crisis isn't just fiscal.

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