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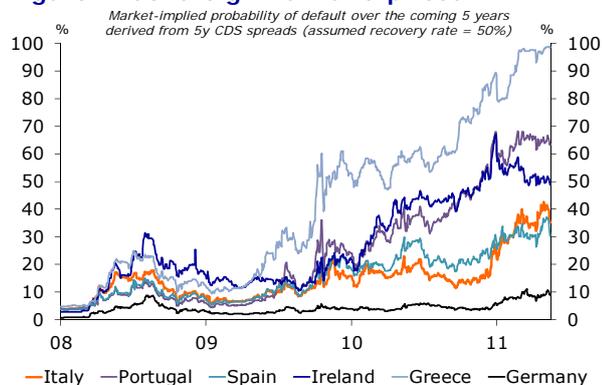
Risk of eurozone breakup

This article is part of a series of Special Reports that discuss the downside risks to the global economic outlook. In this piece, we take a closer look at the risk of eurozone facing a wave of sovereign defaults or even completely breaking up.

Sovereign risks on the rise

Benjamin Franklin, the former president of the US, once famously proclaimed that “in this world nothing can be said to be certain, except death and taxes”. Had he lived today, he would have probably added ‘Greece’s insolvency’ to the list. That is at least what the CDS markets are pricing in nowadays. A look at the market-implied probability of default (IPD) derived from CDS spreads (5 years) shows that the chance of Greece restructuring half of its public debt in the next 5 years is almost 100% (see figure 1). Only three years ago it was less than 5%. So even if Greece imposes across-the-board 50% haircut on its debt, markets will not be surprised. However, the problem is that markets are now pricing in over one-third chance that Italy, with the third largest bond market in the world, will also default in the coming 5 years, while the IPD for Portugal and Ireland is higher than 50%.

Figure 1: Sovereign risk is re-priced

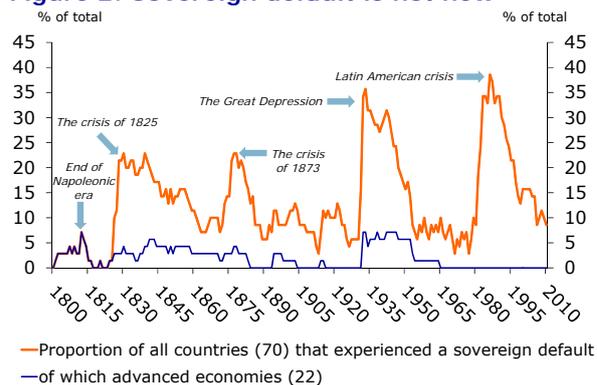


Source: Reuters EcoWin, Rabobank

Sovereign risk in the industrialised world has never reached such unprecedented levels since

the end of WWII. Before this period, however, sovereign default was not an unusual event in the West. As a matter of fact, the advanced economies have defaulted on multiple occasions on their public debt in the past 210 years (see figure 2). Therefore, we need to ask ourselves whether this time is truly different or whether there are good reasons to worry about a wave of sovereign defaults in the Eurozone? In our view, the recent escalation of the Greek debt crisis must serve as a stark warning that suffering from the *this-time-is-different* syndrome (Reinhart and Rogoff, 2010) can be very costly.

Figure 2: Sovereign default is not new



Source: Reinhart and Rogoff (2010), Rabobank

So what is the chance that things start going horribly wrong in the eurozone? Not very big according to the European officials who continue to argue that, with the exception of Greece, all other eurozone members are solvent and have stronger fundamentals. What they fail to recognise is that in times of uncertainty, fundamentals matter less, if at all. At this moment, some countries are being pushed towards insolvency as sovereign risk is being re-priced due to contagion. One should note that *any country* may be driven into insolvency when interest rates start to rise against a nervous financial market backdrop. Economists call this *multiple equilibria*. If investors believe that country X is fundamentally solvent

they will buy its government bonds at a sustainable interest rate. In this case debt service will be bearable. But if many investors start having doubts about the solvency of country X, interest rates will shoot up and the country's banks will be shut out of the capital markets. The economy will then tank, reducing government revenues at exactly the time the government faces higher debt servicing costs, and the public sector will slowly be pushed towards insolvency. Default will soon follow, providing validation of the initial doubts.

To ensure that Italy, Spain, Portugal and Ireland return to the 'good' equilibrium of low interest rates, the European Central Bank (ECB) has gone even so far as to purchase sovereign bonds of these countries in the secondary markets to prevent such a self-fulfilling prophecy. But the continuous rise of government bond spreads vis-à-vis German bunds (see figure 3) suggests that this strategy has been unsuccessful to restore market trust.

Figure 3: Yield spreads vs. bunds (10yr)



Source: Reuters EcoWin, Rabobank

The reason for this, according to many economists, is that the ECB has pledged from the very beginning that its bond buying programme is temporary in nature and that they will stop once the European Financial Stability Facility (EFSF) takes over. In this regard, the analogy made by De Grauwe (2011) is worth quoting at length: *"Imagine an army going to war. It has overwhelming firepower. The generals [the ECB governing council], however,*

announce that they actually hate the whole thing and that they will limit the shooting as much as possible. Some of the generals [Axel Weber and Jurgen Stark] are so upset by the prospect of going to war that they resign from the army. The remaining generals then tell the enemy that the shooting will only be temporary, and that the army will go home as soon as possible. What is the likely outcome of this war? Utter defeat by the enemy".

As for the much-ballyhooed European Financial Stability Fund (EFSF), investors are unconvinced that it will have enough firepower to calm market nerves. Even EUR 1000bn is not sufficient to keep Italy and Spain out of the financial markets for a long time. According to the IMF, the gross financing needs of Italy and Spain will amount to roughly EUR 1150bn until the end of 2013. Increasing the guarantees further to fight market speculators may backfire if it results in a lower credit rating for the core countries, which are already on the financial markets and credit rating agencies' radar screens. Rating downgrades will further raise doubt about the creditworthiness of the EFSF, which might push up the interest costs for its funding¹. This in turn will make the loans that will be provided to peripheral countries more expensive, making deficit reduction harder.

Reforms are necessary but they ain't no panacea

Thus, the only road possible, short of further fiscal integration (e.g. introduction of euro-bonds), which there is no appetite for at this moment, means that the periphery must return to the 'good' equilibrium on their own. The hope is that enacting much-needed structural reforms combined with tough austerity measures will restore market trust. But will this magic potion work? There are reasons to

¹ Note that the EFSF is already trading a large premium versus the German bund with comparable maturities. For that matter, we can see that the European rescue facility apparently does not benefit from 'strength in numbers'.

be sceptical. As for reforms, scholars that studied them conclude that their positive impact on the economy is subject to long lags (for a survey of studies see IMF, 2011b). Country experiences, such as New Zealand and the UK, illustrate that reforms can take years and sometimes decades before translating into higher growth. New Zealand experienced sluggish economic growth performance during the reform period in the 1980s. In the UK, reforms took some time to bear fruit as the jobless rate remained elevated for almost a decade. Empirical cross-country evidence carried out by the IMF (2004) corroborates this conclusion.

What's more, politicians pursuing reforms must realise that they increase the pain even more in the short-run. For example, research conducted by the IMF (2003) shows that in many cases, labour market reform has initially led to higher unemployment and lower GDP as workers are shaken out of unproductive employment. Truly, no one can be sure that the Spanish labour market liberalisation will not lead to a higher jobless rate given that managers finally get the chance to rid themselves of their employees with fixed contracts. Moreover, by upsetting the established status quo, such reforms can raise uncertainties about income/job prospects for the 'protected' group. This may cause them to postpone spending which, at least in the short term, can add to downward momentum.

Finally, the measured impact of reforms is not as large as some politicians want us to believe. Barnes et al. (2011) and OECD (2008) estimate that a bundle of reforms, if taken in parallel, can raise long-run growth in the range of 4-14%-point². Note that estimated impact of structural reforms on potential output should be interpreted with caution. Simulations do not usually allow for a straightforward comparison across reforms types, complicating compar-

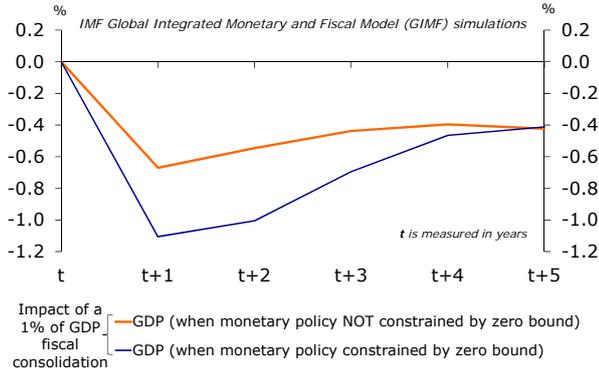
ative assessment of their possible quantified effect on potential output. In addition, estimates do not fully take into account upfront costs of reforms and therefore the short-run impact is uncertain (IMF, 2011b). Finally, research suggests that reforms are more successful when they are prepared in advance, as they involve a considerable amount of careful study and consultation. Many of the least successful reform attempts were undertaken in haste, often in response to immediate pressures (Tompson and Dang, 2010). Overall, the empirical evidence suggests that reforms are certainly welcome but they aren't the silver bullet policymakers are looking for, certainly not in the short-term.

Expansionary austerity is just a myth

And regarding fiscal consolidation, history has shown that in a period that the private sector is repairing its balance sheet, external demand remains weak, the currency cannot depreciate and the monetary policy rate cannot be lowered anymore, budget cuts may result in an outright fall in economic activity. In simple terms, the larger the fiscal consolidation measures, the weaker the economy gets, which makes the whole exercise at least partially self-defeating. With a database of 173 historical episodes (15 advanced economies) of fiscal consolidation during 1980–2009, the IMF (2010) investigated the impact of fiscal consolidation on growth and found that when countries cut the budget deficit in a slump, it results in a fall in GDP relative to the base-line (see figure 4). In the simulations where the zero interest rate floor applies (almost the case in the eurozone) and when the rest of the world conducts fiscal consolidation at the same time (will be the case in the coming years, see figure 5), output costs more than double (2% loss of output within two years). This is perhaps the reason why major public debt reductions in the EU 15 in the period 1985-2009 mainly occurred during times of strong economic growth and falling interest burden (Nickel et al., 2010).

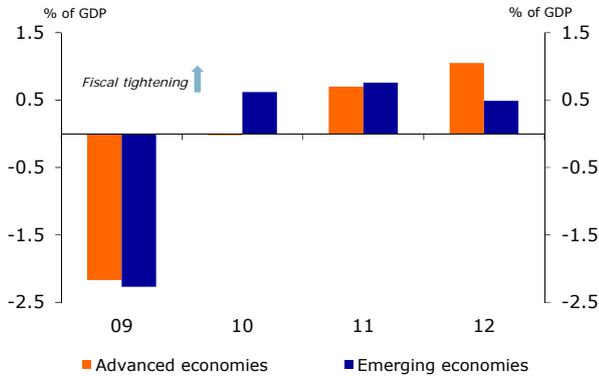
² For example, if trend growth before reforms would be 2%, it could be raised to 2.1-2.3% if reforms are carried out.

Figure 4: Austerity is contractionary



Source: IMF

Figure 5: Fiscal impulse

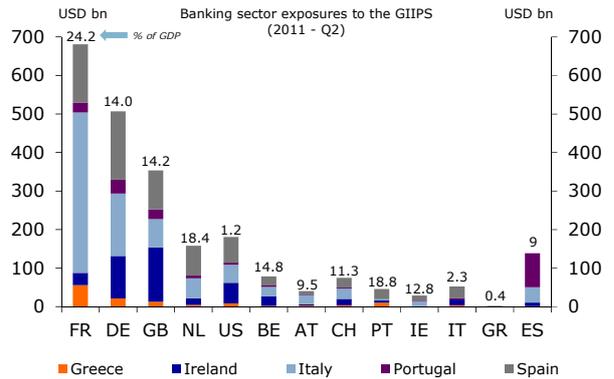
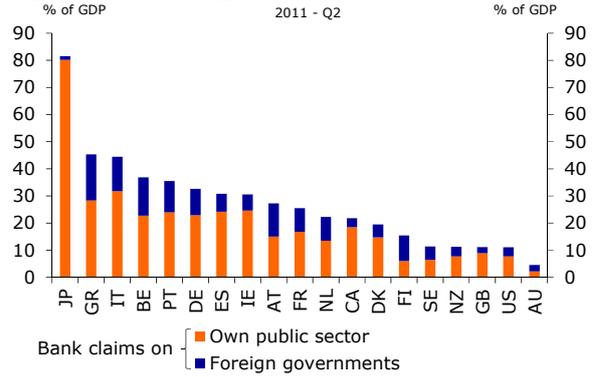


Source: IMF

It's payback time!

If this pessimistic scenario becomes reality, governments will find themselves in a vicious circle whereby insolvency would draw ever closer. Sadly, this will not be the end of the story. As stated before, the banking crisis in 2008 resulted in the current debt crisis. This time round, the crisis will go into reverse – sovereign defaults will culminate in a global banking crisis. Initially, banks in the countries hit by debt crises will suffer immensely. They will do so through four potential channels. First, increases in sovereign risk cause losses on banks' government bond holdings, thereby weakening their balance sheets. This can be particularly damaging as banks often have large exposures to their own public sector (see figure 6, top panel). Second, falls in the market prices of sovereign bonds due to deterior-

Figure 6: Banking sector exposure



Source: IMF, BIS, Rabobank

ation in sovereign creditworthiness reduce the value of the collateral that banks can use to secure wholesale and ECB funding, and can trigger margin calls from counterparties. Third, deterioration in the creditworthiness of the sovereign reduces the funding benefits that banks derive from government guarantees, be they explicit or perceived. Fourth, sovereign downgrades often flow through to lower ratings for domestic banks, which further raises their wholesale funding costs and possibly reduces their market access³. Amid the large cross-holdings of sovereign bonds in the eurozone, it is safe to assume that a wave of defaults in the periphery will immediately lead to a severe banking crisis in Europe. If we were to include

³ Banks are more likely than other sectors to be affected by sovereign distress. Only 2% of domestic banks across seven non-AAA European countries had a credit rating that was higher than that of their respective sovereign at end-2010. Moreover, in five advanced countries that have experienced ratings downgrades since late 2009, two thirds of domestic banks have had their credit ratings lowered within the six months following a sovereign downgrade (Davies and Ng, 2011).

the entire exposure of advanced economies to Greece, Ireland, Italy, Portugal and Spain (GIIPS), we can see that potential losses can be substantial in the event of messy sovereign defaults (see figure 6, bottom panel). Thanks to the interconnectedness of the global banking sector, the European banking crisis will instantly spread to the rest of the world.

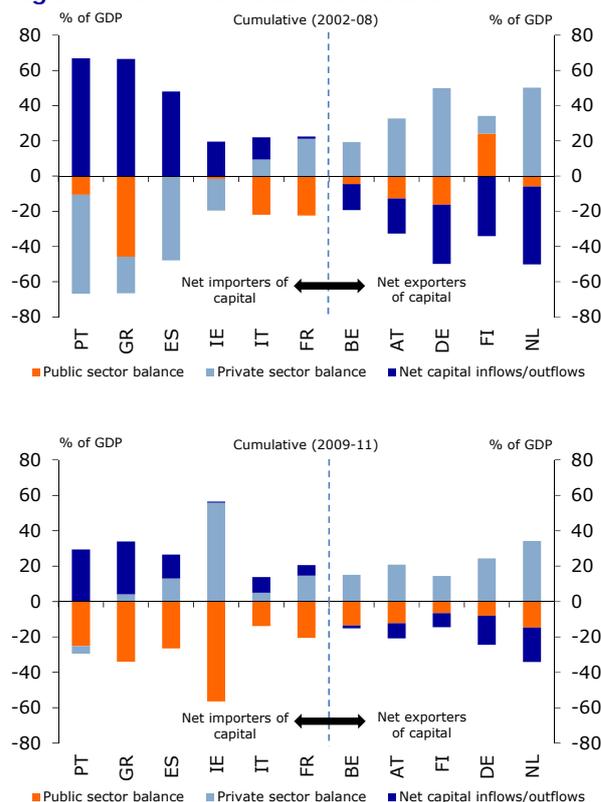
Should I stay or should I go?

Unfortunately, a wave of defaults in the periphery and a global banking crisis may not even constitute the endgame. Over the years the eurozone peripheral countries have lived beyond their means. By looking at the sectoral financial balances in the period 2002-08, one can see that the private sector and/or public sector within these countries were spending more than their income/production (i.e. running a financial deficit). And this was only made possible by massive capital outflows from, among others, the Netherlands, Germany, Finland and Austria (see figure 7, top panel). Since most of the capital inflows into the periphery were either consumed (especially in the case of Greece and Portugal) or invested in unprofitable projects (e.g. housing markets in Ireland and Spain), these imbalances were clearly unsustainable.

As such, a correction of these intra-eurozone imbalances is required whereby the periphery start to consume and invest less and instead earn more from abroad (through net trade). The former is already happening. Figure 7 (bottom panel) shows that households and firms in all the periphery countries, with the exception of Portugal, have been running a financial surplus (i.e. spending less than their income) over the past three years. However, they are still recipients of capital inflows given that governments have been in a *releveraging mode*. The need for reducing public debt ratios to more sustainable levels means governments in these countries must soon join their private sector counterparts by running a surplus. But to achieve that they would need the foreigners

to do the spending for them. As the famous *paradox of thrift*⁴ states: if everyone tries to save more money at the same time, then aggregate income will fall and this will in turn lower *total* savings in the country. Against this background, stronger contribution from net trade is a *sine qua non* for balance sheet repair in the periphery.

Figure 7: Sectoral financial balances



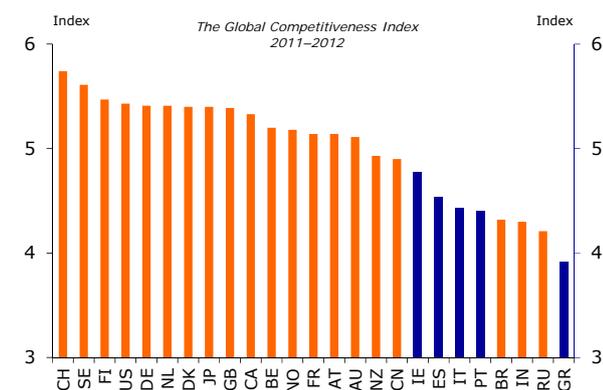
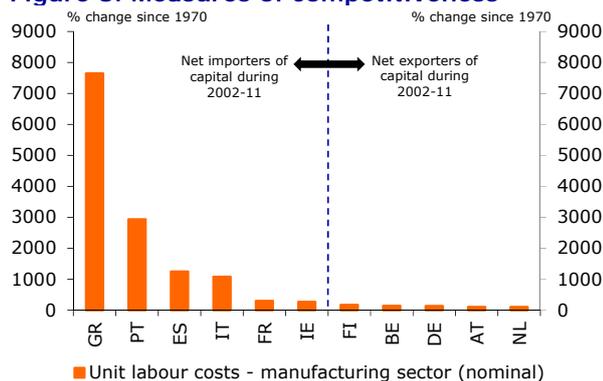
Source: Reuters EcoWin, Rabobank

That is obviously easier said than done. As growth prospects globally have softened, and as spending in the core euro area adopt a 'wait-and-see' attitude in response to elevated uncertainty, the prospects of external demand benefiting growth in the periphery have deteriorated. In addition, the periphery does not even have a good starting position to benefit from global demand. Over the past few decades, the GIIPS have lost a substantial amount of competitiveness in the international marketplace. The simplest way to show this is by

⁴ Popularised by John Maynard Keynes.

looking at the change in unit labour costs⁵ (ULCs) over the past few decades. Figure 8 (top panel) shows that ULCs in the manufacturing sector, arguably the most export-driven sector of an economy, have increased to very high levels in some of the periphery countries as nominal wage growth has strongly surpassed gains in labour productivity⁶.

Figure 8: Measures of competitiveness



Source: Reuters EcoWin, WEF, Rabobank

A broader measure of international competitiveness is calculated by the World Economic Forum (WEF). Figure 8 (bottom panel) shows that the GIIPS score the lowest amongst the advanced countries according to the WEF's

⁵ Nominal wages relative to average labour productivity.

⁶ There are two shortcomings with the calculation of change in ULCs. First, it does not say anything about the level of price competitiveness (e.g. Greece is still rather cheap, even though it has become less cheap from a Northern European perspective). Second, it does not relate price competitiveness to developments in competitors' markets (trade-weighted exchange rates would be more appropriate because Greece does not compete only with Germany, but also with many Eastern European countries).

Global Competitiveness Index, which comprises 113 indicators. Amazingly, all these countries have been surpassed by China. Greece is in the most precarious position (ranked 90th amongst 142 countries). Hence, regaining the lost competitiveness is of utmost importance for public and private debt sustainability in these countries.

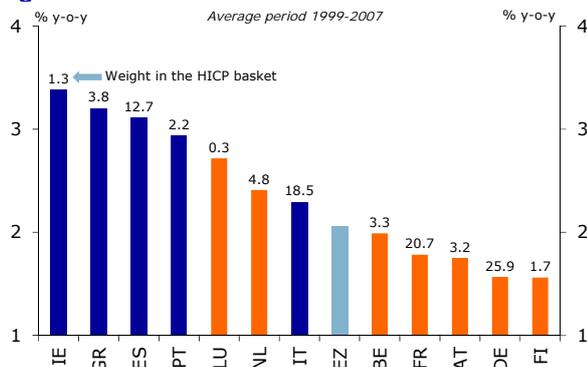
The best way to boost competitiveness in order to benefit from net trade is to raise labour productivity. This will nicely lower ULCs and result in higher exports of goods and services. But this is not easily achievable in the short- to medium-term. As we discussed above, the needed reforms that bolster productivity growth will only work with a long lag and the situation might even get worse before it gets better. Obviously, no country can improve its infrastructure, educational system, labour market, governance, etc. in a flash. The quicker way to increase international competitiveness, therefore, is through lower costs.

The downhill battle in a monetary union

Given that the GIIPS are in the euro straitjacket, they can only close the competitiveness gap through an 'internal devaluation' – their prices/wages must fall relative to the average of their competitors (e.g. the 'core' European countries). This isn't simple in a monetary union. During the relative 'boom' years, inflation in the core countries was already comfortably below 2% (see figure 9). Indeed, eurozone inflation only averaged 2% in the period 1999-2007 thanks to the stronger growth in prices/wages in the periphery, which was due to the *catch-up* growth. As such, if our expectation for sluggish global growth in the coming years proves accurate, inflation in the core countries may be even lower going forward. Hence, the periphery need to post inflation rates close to zero or even experience outright deflation for many years until they can reasonably compete on a global scale. Expecting year after year of nominal wage stagnation or contraction can be a herculean task in any society.

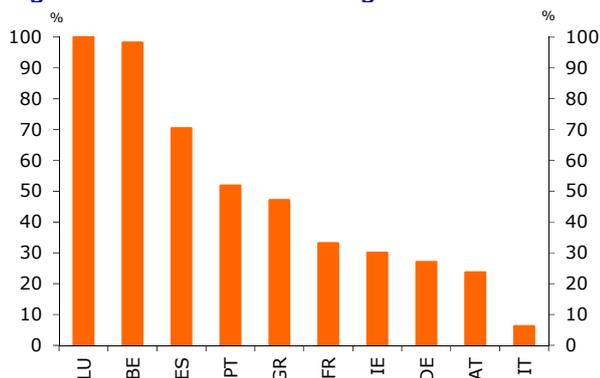
Note that the indexation of wage contracts to inflation act as an extra barrier to real wage adjustment in Spain, Portugal and Greece (see figure 10). If wage-setting is unresponsive to domestic macroeconomic conditions, unemployment will rise to uncomfortable levels.

Figure 9: Eurozone HICP inflation



Source: Reuters EcoWin, ECB

Figure 10: Indexation of wage contracts



Source: ECB

Surely, there are three ways to lower the pain of internal devaluation. The unorthodox way is for the ECB to target a higher inflation rate, say, between 4-6%. This approach – supported by many ‘economic heavyweights’⁷ – will prevent the GIIPS from going through years of painful deflation. However, we do not believe Mario Draghi, the newly appointed president of the ECB, to go down this road. Fighting inflation has been encoded in the ECB’s DNA re-

⁷ These include Paul Krugman (economics Nobel laureate), Olivier Blanchard (chief economist of the IMF), Ken Rogoff (former chief economist of the IMF) and Gregory Mankiw (former chairman of the Council of Economic Advisers in the US).

gardless of the nationality of its president. The second approach would be what economists call “fiscal devaluation”. With a fixed money wage –more precisely, a fixed money wage *net* of employers’ social contributions (e.g. payroll tax)— a reduction in the rate of those contributions reduces ULCs and thus lowers producer prices, including those of exported goods and services. The effects on the government budget can then be neutralised by a corresponding rise in the VAT rate⁸, which bears on domestic consumption but not on exports, and so will increase the consumer price of imports. Foreign demand for exports increases and domestic demand for imports falls; consequently, the current account improves –as it would with a depreciation of the real exchange rate. Meanwhile, this policy will be revenue-neutral (i.e. the fiscal position does not deteriorate). Sounds promising right? Yes on paper it does, but empirical evidence shows that fiscal devaluations have small positive effects on the current account. The IMF (2011a) surveys a number of studies⁹ and concludes that the results of studies on fiscal devaluation suggest that the positive effect on trade “while not trivial, should not be overestimated”.

The third method is for the core countries to make themselves less competitive by raising their nominal wages. However, this sounds like blasphemy to the officials in the core. The rea-

⁸ In practice, the room for VAT changes may be limited because substantial differences in VAT rates between eurozone members would create opportunities for cross-border trade to exploit the possibilities of tax arbitrage (Calmfors, 1998).

⁹ De Mooij and Keen (2011) find the effect of a revenue shift of 1% of GDP from social contributions to VAT results in an increase in net exports to tune of 0.4%-points of GDP. The Bank of Portugal simulates a shift from social contributions to VAT equivalent to 1% of GDP. In the first year, this leads to an improvement in the trade balance by 0.6% of GDP and after three years the effect on the trade balance disappears. The European Commission simulates a similar shift in Portugal and finds that net exports increase in the short run by 0.1% of GDP. The effect gradually disappears, and the long-term effect on net exports is found to be negligible (IMF, 2011).

son is because they do not appreciate that competition is essentially a zero-sum game (Boonstra, 2011). What they fail to comprehend is that the GIIPS cannot gain competitiveness (as they want them to), without the core at least assisting them by losing some of their own. Either wages outside the periphery must rise, or those in the periphery must drop. The result is basically the same; the much-awaited rebalancing in the eurozone will finally take place. The advantage of rising wages and, therefore, stronger aggregate demand in the core is that the periphery will get a bit of breathing space. To our regret, European leaders in the core continue to ignore this stick to their old export-oriented models by compressing nominal wages while forcing the periphery to do the same. As history of currency wars has shown, such a race to the bottom (either currency devaluation or wage deflation) is unlikely to boost any country's competitiveness.

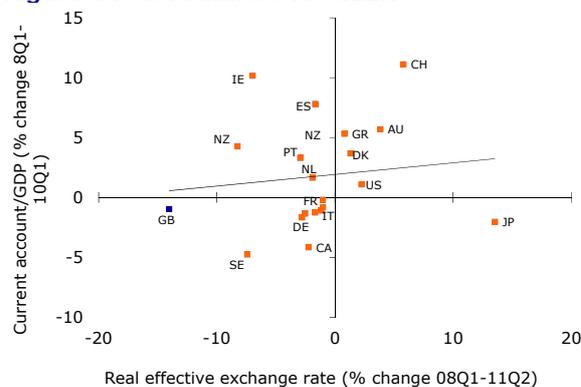
If the periphery face massive social unrest amid painful internal devaluation process, will they then opt for the easier external devaluation? They know that with an external devaluation, they can reach the bottom far faster than the other countries. So there is a risk that some of the periphery countries, if not all, see it to their benefit to exit the eurozone (most likely after defaulting on public debt) in order to swiftly regain competitiveness. One can expect that the exiting country's currency will instantly depreciate by 30-50%, if not more. As attractive as this option looks at first sight, it is fraught with uncertainties and unpredictable costs. Below we shall discuss the most well-known.

Will exchange rate devaluation actually boost exports?

In Econ 101, students learn that exchange rate depreciation goes hand in hand with higher net exports due to the gain in competitiveness. To be sure, the current account balance may initially worsen as it takes time to change con-

suming patterns¹⁰, but in due time it is expected to show improvement. However, economic reality suggests that this relationship is not as strong as perceived, especially during abnormal macro conditions. Figure 11 shows that since the financial crisis, the correlation between current account\GDP and the trade-weighted exchange rate (adjusted for inflation) has been even slightly positive (theoretically the relationship should have been negative). A country such as the UK, which experienced a massive currency depreciation, has even seen a deterioration in its current account balance, while a country like Switzerland has seen its current account surplus surge amid a strong appreciation of the franc. It goes beyond the scope of this paper to outline the exact reasons why the countries' export sectors fared differently, but suffice to say that external devaluation alone is not a magical recipe for stronger exports. It depends not only on the type of goods and services produced but also on the macroeconomic conditions of the major trading partners.

Figure 11: CA balance vs. REER



Source: OECD, Rabobank

Another issue with external devaluation is that, if wage inflation is not subdued, all the external competitiveness gained in the short-term

¹⁰ This is in line with the famous Marshall-Lerner Condition, which states that for a currency devaluation to have a positive impact on trade balance, the sum of price elasticity of exports and imports must be greater than 1. In most empirical cases, this is found not to be the case in the short-term (Mahmud, et al., 2004).

will be neutralised. When import prices rise due to devaluation, workers start asking for higher wages to compensate for the loss of purchasing power. [The ones with indexed wage contracts don't even need to negotiate as nominal wages will adjust automatically].

Finally, it seems highly unlikely that a government could leave the eurozone and expect to remain a fully functioning member of the European Union (EU) itself. By leaving the euro, the seceding country is breaching the constitution of the EU. The whole process of introducing a national currency is clearly against the guiding principles of the European project. The consequence is that the country leaving the euro membership will lose access to the EU's Single Market. This will be a huge blow to the country's exporters. What's more, the rest of the eurozone is unlikely to regard secession with tranquil indifference. In the event that a national currency following exit were to depreciate significantly, which is what we would expect, it would entice the euro members to retaliate by imposing a substantial tariff against the exports of the seceding country.

Even if exports start performing better, there are other major procedural costs that the exiting country must weigh in before deciding to leave. The logistical headaches of leaving the euro are probably too much to bear. Reintroducing the national currency would require essentially all contracts –including those governing wages, bank deposits, bonds, mortgages, taxes, and most everything else– to be redenominated in the domestic currency. The legislature could pass a law requiring the private and public sector euro debt to be redenominated. But in a democracy this decision would have to be preceded by very extensive discussion. Only law firms are expected to come out as winners in this situation. And for the exit to be executed smoothly, it would have to be accompanied by detailed planning. Computers, vending machines and payment machines will have to be reprogrammed. Notes and coins will have to be positioned around the

country. One need only recall the extensive planning that preceded the introduction of the physical euro.

Besides these procedural costs, there are major economic costs. Depositors anticipating that domestic deposits would be redenominated into the new currency, which would then lose value against the euro, would rationally shift their money to other euro-area banks in days if not mere hours. A system-wide bank run would follow in the exiting country. Investors anticipating that their claims on the government would be redenominated into the new currency would also shift into claims on other euro-area governments, leading to a bond-market crisis. As Eichengreen (2010) noted, "*this would be the mother of all financial crises*". The government may hope to stop this by imposing a freeze on deposits and strict capital controls (including border patrols). As regards the former, one must doubt how effective such a policy can be in light of massive social unrest. And capital controls have proven to be porous (i.e. investors usually find an exit door one way or the other). If these measures do not work, as we think they won't, the crisis should be battled head on. But how can a government that has reneged on almost all contracts be expected to borrow from foreigners to bail out its banks and buy back its debt? The enormous economic costs means GDP will contract severely (no econometric model can give us an indication of how bad things will be) and this implies that the fiscal position will worsen dramatically once again. Sounds like shooting oneself in the foot? You bet!

Box 1: Will a core country leave the euro?

Some market participants argue that it will not be a weak country leaving the euro, but rather a strong one. It is not difficult to imagine that at some point in time, one of the stronger members of the eurozone will throw in the towel after being completely fed up with the speed of adjustment in the region. The prime candidate is none other than Germany itself.

Reasons for exit can be huge costs of bailing out countries or the fact that the ECB will resort to monetisation of debt in the Eurozone to lower contagion risks.

In any case, the exiting country, just like a weak one, will also have to account for the potential costs of exit before making such a move. We believe the costs for a strong country exiting is less but still substantial. As discussed before, no country can leave the Eurozone without the EU. So the country loses access to the Single Market for good, which is highly important to the open economies in the North. What's more, the country will have to go through the same procedural costs of reintroducing the domestic currency. The difference with a weak country exiting is that the new currency will actually appreciate significantly post-exit amid safe-haven flows. This would immediately hurt the export sector. Besides, the foreign assets and liabilities of the country need to be written down when the domestic currency is introduced. In such a scenario, a creditor nation will stand to lose immensely. The associated negative wealth effect will act as an extra drag on growth. To sum up, it is impossible to accurately estimate whether the strong country will gain or lose from exiting, but, in our view, chances are greater that the country will eventually lose more by leaving than staying put.

Bottom line: The Eurozone is hanging in the balance. Pushing the periphery to carry out a cocktail of reforms and austerity measures may not be sufficient to restore market trust. If so, the European leaders will reach a crossroads. In our view, once they truly begin to stare into the abyss (i.e. appreciate the potential costs of default/exit), they will do whatever it takes to resolve this crisis. This can be in the form of a credible signal that euro members are willing to move forward with fiscal and political integration while allowing the ECB/EFSF to ensure market liquidity in the short run to calm market nerves. In our view, this is far less costly than the alternative.

However, the intricate task is to get the national electorates on board. Only time will tell whether the politicians will do a convincing job.

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References

- Barnes, S., Bouis, R., Briard, P., Dougherty, S. and Eris, M. (2011).** The GDP Impact of Reform: A Simple Simulation Framework. *OECD Working Papers No. 834*
- Boonstra, W.W. (2011).** Afscheid van Loonmatiging Lost Vele Problemen op. *Het Financieele Dagblad*, October.
- Calmfors, L. (1998).** Macroeconomic Policy, Wage Setting, and Employment—What Difference Does the EMU Make? *Oxford Review of Economic Policy No. 3*.
- Davies, M. and Ng, T. (2011).** The Rise of Sovereign Credit Risk: Implications for Financial Stability. *BIS Quarterly Review September*.
- De Mooij, R. and M. Keen, M. (2011).** Tax Reform and Fiscal Policy. *Mimeo*.
- De Grauwe, P. (2011).** European Summits in Ivory Towers. *VoxEU article, October*.
- Eichengreen, B. (2010).** The Euro: Love it or Leave it? *VOXEU article, May*.
- IMF (2003).** Growth and Institutions. *World economic outlook April*.
- IMF (2004).** Fostering Structural Reforms in Industrial Countries. *World Economic Outlook April*.
- IMF (2010).** Will it Hurt? Macroeconomic Effects of Fiscal Consolidation. *World Economic Outlook October*.
- IMF (2011a).** Addressing Fiscal Challenges to Reduce Economic Risks. *Fiscal monitor September*.
- IMF (2011b).** Italy: Selected Issues. *Country Report No. 11/176*.
- Mahmud, S.F. Ullah, A. and Yucel, E.M. (2004).** Testing Marshall-Lerner condition: a Non-Parametric Approach. *Applied Economics Letters No. 11*.
- Nickel, C., Rother, P. and Zimmermann, L. (2010).** Major Public Debt Reductions: Lessons from the Past, Lessons from the Future. *ECB Working Paper No. 1241*.
- OECD (2008).** The GDP Impact of Structural Reforms: A Simulation Framework. *OECD Working Party No. 1 on Macroeconomic and Structural Policy Analysis*.
- Reinhart, C. and Rogoff, K. (2009).** This Time is Different. *Princeton University Press*.
- Tompson, W., and Dang, T.T. (2010).** Advancing Structural Reforms in OECD Countries: Lessons from Twenty Case Studies. *OECD Working Papers No. 757*.