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Resolving the Eurozone crisis: Time for *conditional* eurobonds

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The Eurozone is now in an existential crisis. Weak fiscal discipline; profound differences in labour market, credit, and housing institutions; failures in financial regulation and a common interest rate have led to unsustainable internal imbalances in the common currency area. These are visible in divergences in competitiveness, unsustainable government, and private debt to GDP ratios as well as in other symptoms such as persistent balance of payments deficits. On top of this comes the financial fraud committed by Greek politicians and civil servants from pre-entry to 2009 that in scale dwarfs that of financier Bernard Madoff. This marks Greece out as a special case, currently an important distinction.

It has often been argued that a monetary union will disintegrate without a fiscal union. But the Eurozone lacks the democratic institutions for a fiscal union, and a fiscal union without draconian centralisation is thought to pose dangers of perverse incentives. A resolution of the Eurozone's existential crisis needs to address this fundamental issue. It needs to create the right incentives through a mixture of carrots and sticks to enable the poorly performing economies to return to economic growth and to avoid a future existential crisis. It needs to discourage moral hazard and arrive at a fair distribution of burden sharing between taxpayers in different countries and holders of sovereign and bank bonds. A common currency rules out currency depreciation but the history of successful currency depreciations offers important signposts: how to mimic the consequences of such a depreciation without actually abandoning the euro.

International efforts to correct past failings in financial regulation are well underway. This article argues that *conditional* eurobonds, coordinated nominal wage cuts linked with *limited* debt writedowns and bank recapitalisation are the lynch-pin of a successful resolution. This can create the incentives for the fundamental structural reforms still outstanding in the countries whose sovereign debt markets are now under pressure. Conditional eurobonds are eurobonds with a collective underwriting guarantee which limits the country risk faced by investors and where administratively set spreads determine the annual side-payments at below AAA-rated countries pay to the AAA-countries, currently Germany, France, the Netherlands, Austria, Finland and Luxembourg. These spreads would compensate the taxpayers in these countries for their risk in underwriting the bonds of the riskier countries and would be paid in proportion to the outstanding government bond issuance of the receiving countries. The spreads would be set annually conditional on a set of clear performance targets determined by a new European monetary and fiscal authority (EMFA).

Limiting the country sovereign debt risk faced by investors (other than in the special case of Greece) would immediately restore confidence in Eurozone sovereign debt markets where the bond market vigilantes are envisaging substantial probabilities of worst case scenarios. A sensible limit on risk might be to underwrite 85% of sovereign debt. Then, the worst case scenario would involve a debt write down of 15%. This figure is discussed further below.

To illustrate with a hypothetical example, Portugal's 10-year government bonds currently face a spread of around 8% relative to German 10-year bunds. After receiving a political commitment to structural reform from the Portuguese government, the EMFA might set the spread at 5% for new borrowing in the first year but with the promise that, conditional on measurable and satisfactory progress, the spread would be reduced in the following years. This immediately takes off some of the pressure exerted by highly risk averse financial markets on the economy of Portugal and on the holders of its sovereign debt. At the same time it creates a strong reform incentive with early

1 I am very grateful to Philip Lane, Rui Pedro Esteves, Paul De Grauwe and John Duca for helpful comments on earlier drafts but absolve them from blame.

rewards. It also encourages early fiscal discipline: why borrow expensively now when there is a good chance of being able to borrow more cheaply in future? This makes conditional eurobonds quite different from conventional eurobonds. As Kopf (2011) and Gros (2011) have argued, conventional eurobonds suffer from incentive problems, creating the risk of a future, even larger crisis.

It is important that the spreads apply to new borrowing even though the collective underwriting of sovereign debt applies to all outstanding debt. This is not a worry since a substantial fraction of outstanding debt typically needs to be refinanced every year, so the high-debt countries, especially those with short maturities, still have a strong incentive for fiscal reform but without suddenly being crippled by having to pay higher coupons on outstanding debt. As far as the debt-issuing countries are concerned, new debt is issued under a variable coupon contract. This is different from conventional bonds where the coupon is fixed at the outset, though for private investors, the conventional fixed coupon structure is maintained. Since the annual spread paid to the AAA countries is fixed anew every year irrespective of the duration of the bond issued, the EMFA does not need to specify different spreads at different maturities, which simplifies its task. The yield curve on eurobonds as a whole would still be determined by the market.

This incentive structure also has a major benefit in decentralising Eurozone governance, thus greatly reducing the problem of missing democratic institutions

From the issuing country's point of view, there would be an incentive to issue debt at that maturity where the first year payment is minimised since, with the same spread for all maturities, this minimises the funding cost. This would undoubtedly induce shifts in the yield curve of outstanding euro denominated sovereign debt. Such shifts would occur in any case because of the new underwriting guarantee and would be affected by the details of how a (max 15%) debt write-down would occur, for example, whether it would it affect only the principal or be applied in proportion both to coupon payments and principal.

There is a parallel between the spreads proposed here and the funding cost of the Irish bail-out package requested by the Irish government in November 2010 and eventually agreed at a premium of 3% for a 7.5 year loan from the EU and IMF, see Lane (2011). The difference, however, is that this premium does not alter with Irish economic performance. It thus misses both the carrot of lower premia in future years that is conditional on performance, and the stick of a higher first year rate. In July 2011 the premium was eliminated in new European lending to "programme countries". This eliminates conditionality altogether so that government behaviour is constrained only by advance agreement and may be subject to relapses, unless programme countries expect to have to apply for further tranches of emergency funding.

The conditional eurobonds proposed here are different from the "blue bond/red bond" proposals of Delpla and von Weizsäcker (2010), which are unlikely to reduce funding costs as Kopf (2011) argues, and also suffer from incentive problems. The closest previous proposal for eurobonds is that of De Grauwe and Moesen (2009) – see also De Grauwe (2011) for further discussion. As this article went to press, Charles Goodhart alerted me to previous proposals for eurobonds with country risk premia by Dr. Wim Boonstra, chief economist of Rabobank. De Grauwe and Moesen propose that low yield countries such as Germany would be compensated by high yield countries such as Greece. They illustrate by taking the February 2009 long bond yields of 5.7% for Greece and 3.1% for Germany to calculate the premium of 2.6% by which Greece would have to compensate AAA-countries for being allowed to issue eurobonds. Since then, these yield spreads have rocketed suggesting that the market at a particular point in time may not be the ideal judge to determine the size of the premium. Under the conditional eurobond proposal here, the premium would be set by the EMFA and its conditionality on performance would create clear reform incentives.

This incentive structure also has a major benefit in decentralising Eurozone governance, thus greatly reducing the problem of missing democratic institutions that would have to legitimate a tough central fiscal authority. Although individual governments would not have the freedom to set the targets, they would make the policy choices to achieve the targets to reduce their future financing costs.

To appreciate the nature of the required targets, the nature of the multiple tensions in the Eurozone needs to be understood. The first of these is the problem of competitiveness. It also sets the scene for the coordinated nominal wage cuts discussed further below.

Competitiveness

Divergence in unit labour costs is a key indicator of stresses within the Eurozone. Using the OECD Main Economic Indicators data, Figures 1 and 2 below, show unit labour cost indices for core and periphery countries, rebased at 100 in 2000. Figure 1 shows a sharp rise in unit labour costs in 2008 and 2009 as output fell far more than employment in Austria, Belgium, Finland, France, Germany and

the Netherlands, followed by a considerable fall in 2009-11 as output recovered, except in France. Figure 1 raises questions about France, with the worst performance in this group since 2000, while Germany's is best.

Figure 1 Unit labour costs for core Eurozone, business sector excluding agriculture

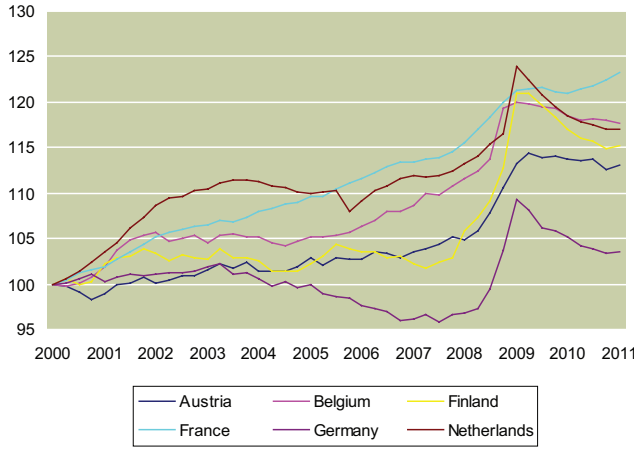
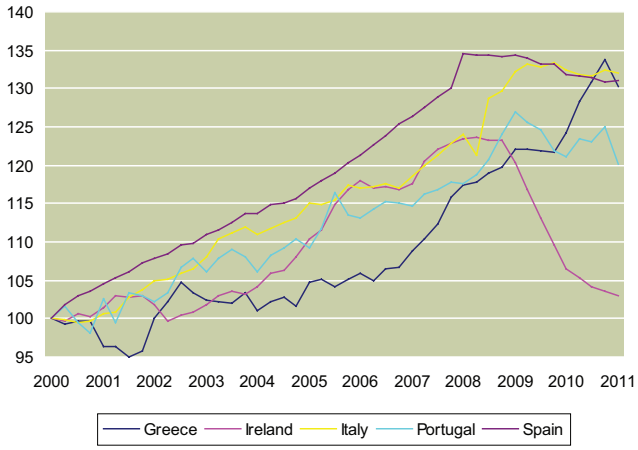


Figure 2 Unit labour costs for Eurozone periphery, business sector excluding agriculture



The most striking revelation in Figure 2 is the contrast between Ireland and Greece. Since 2008, there has been a massive fall in unit labour costs in Ireland[2], despite the initial fall in output, so much so that Ireland has the best performance since 2005 in unit labour costs, surpassing even Germany and similar to Germany for 2000 to 2011. In Greece, by contrast, unit labour costs have risen sharply since 2008, though this partly reflects the further fall in output in 2010. Only in 2011, is there a sign that unit labour costs in Greece are beginning to fall. This is a contrast between a flexible labour market with an Irish government determined to address fundamentals, and a labour market where insider power and restrictive practices rule, with a Greek government very slow to address fundamentals. Figure 2 also suggests that from 2000 to 2008, Spain and Italy have been the worst performers, with poor productivity growth, inflexible labour markets and, in the case of Spain, a huge construction boom driving up wages. This and tentative signs of growth in 2011 (see Vines and Watson 2011 in the *Financial Times*) support the cautious optimism expressed by Honohan and Lane (2009).

The situation of Spain and Italy is worrying. Longer runs of data show that unit labour costs in Spain also rose faster than Germany's from 1990 to 2000 (59% vs. 19% in 1990 to 2000 as against 29% vs. Germany's 3% between 2000 and 2010). Nor is this mostly a composition effect with the faster growth of lower productivity sectors in Spain accounting for most of the difference.[3] It must be pointed out, however, that a substantial depreciation of the Spanish peseta against the DM between 1992 and 1995, softened much of the effect on international competitiveness in the 1990s.

The most striking revelation in Figure 2 is the contrast between Ireland and Greece.

Bentolila (2008) points to various structural impediments that underlie poor flexibility and poor Spanish productivity performance, with a fall since 1995 in total factor productivity. These include high firing costs and employment protection for those on permanent contracts, and centralised wage negotiations that make it hard for firms to reward productivity. Dolado (2010) argues that the dual labour market in Spain and the easy money to be made in the construction boom resulted in many unskilled workers not completing their schooling. Italy also has a dismal productivity growth record, a high degree of employment protection, and national wage bargaining. The latter forces up real wages and therefore unemployment in the south where living costs and productivity are lower. Since national bargaining is most strongly enforced in the public sector, the low level of real wages in the North there reduces the quality of available civil servants. The pressure to create public sector jobs in the high unemployment south implies high numbers of public sector workers (often over-qualified or appointed through patronage) relative to the work needed to be done in the south. This is a recipe for poor productivity and poor quality of service delivery in the public sector, with a

2 Philip Lane's helpful comment to the author is that this fall in unit labour costs came from six sources: imposed large pay cuts in public sector; large cuts in pay for self-employed (construction workers, professionals etc); large cuts in compensation in the financial sector (discretionary bonuses eliminated); voluntary pay cuts where a firm is threatened with shut down; cuts in the wage for new hires in a given occupation, and finally a composition effect as employment in lower productivity sectors declined more. Note that many other existing employees have not experienced wage reductions.

3 Comparable figures for manufacturing show a rise in unit labour costs of 31% in Spain between 1990 and 2000, and 15% for Germany, and 26% in Spain from 2000 to 2010, with a fall of 1% in German manufacturing unit labour costs over the same decade. These suggest an absence of the disciplining effect monetary union was expected to have on the Southern economies.

negative spillover for the private sector. Restrictive practices in, for example, the legal profession are another reason for Italy's poor productivity record and creaking bureaucracy. It is likely that Spain suffers from similar regional problems to Italy, though probably not on the same scale. Spain also suffers from great differences between regions in unemployment rates and low inter-regional mobility, in part connected with the lack of a substantial private rented sector.

Portugal also has a relatively rigid labour market and somewhat bloated public sector, though not on the scale of Greece. Given its industrial structure, once strong in textiles, Portugal's international competitiveness[4] has been disproportionately impaired by China's manipulation of its exchange rate to boost employment in its export sector Furthermore, it adopted the euro at what was almost certainly an overvalued exchange rate.

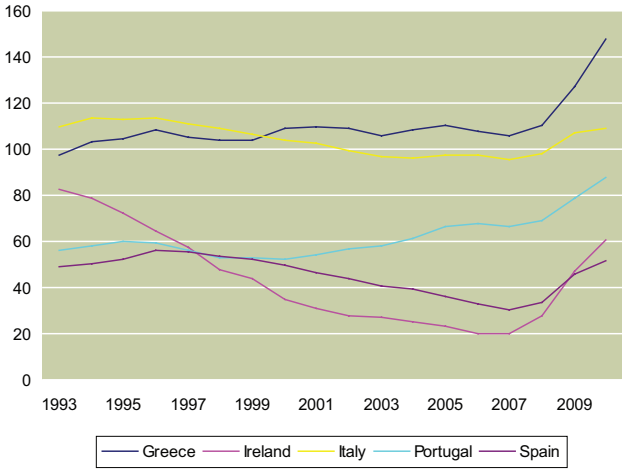
...the external balance of a country can also be an important economic stress indicator.

Ireland's remarkable success in improving unit labour costs in a short period is an example of what is possible. It can be argued that a smaller, more open economy in which an improvement in international competitiveness has more dramatic growth consequences made it easier for Ireland than would be the case for the southern fringe of the Eurozone. But the counter-argument is that real living standards would drop less in the less open economies so making change easier, see further discussion below. The departure of many recent immigrants from Ireland probably also helped the adjustment process, but with recent immigrants now making up 16% of the labour force in Spain compared with 1.3% in 1996, see Bentolila (2008), Spain has potential there too.

Other stress indicators: Debt and current account to GDP

Figure 3 shows the evolution of central government debt to GDP ratios for the below-prime Eurozone governments using OECD main economic indicators data. These data do not fully include contingent liabilities governments such as that of Ireland incurred in guaranteeing the debt of their banking systems.[5] They also do not measure future pension liabilities, which could make the debt problems of some countries look far worse. Furthermore, being on a gross basis, they do not net off publicly owned income generating assets which would have a bearing on debt servicing ability. The Figures show debt to GDP ratios rising everywhere after 2007, most sharply in Greece and Ireland, though the latter from a far lower base. In 2010, Greece had the highest debt to GDP ratio, followed by Italy, Belgium, and Portugal, though Belgium and Italy have had a gradually falling ratio from the early 1990s to 2007, unlike Greece and Portugal. The Irish debt to GDP ratio is expected to peak only in 2013 at about 118%.

Figure 3 Central government debt to GDP for Eurozone periphery



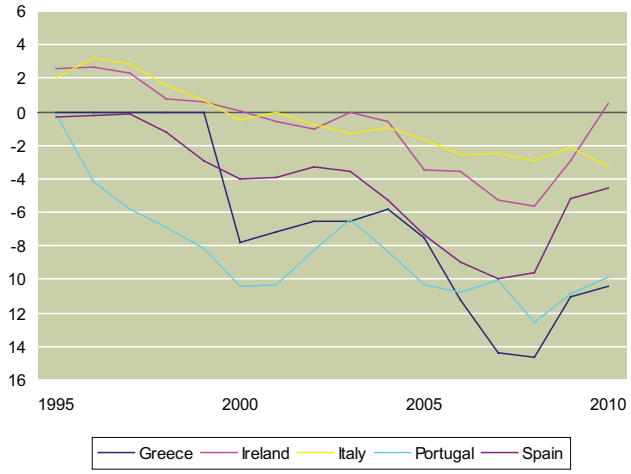
As Gros (2011a) points out, and as Muellbauer and Murphy (1990) argued, the external balance of a country can also be an important economic stress indicator. Indeed, Gros illustrates the cross-country correlation of external balances with spreads. Back in 1990, drawing on the inter-temporal theory of the balance of payments, we argued that the UK current-account deficit was unsustainable. It reflected an unsustainable credit and house-price boom, and worsening international competitiveness rather than borrowing in advance of an expected future rise in national income because of better growth prospects based on gains in productivity or competitiveness. Figure 4 shows Greece to have had the champion current account to GDP deficit in 2007, followed by Spain, Portugal, Ireland, and Italy. The ordering in 2010 is the same but for one dramatic difference: Ireland's deficit had already become a surplus. The Figure shows massive current-account deficits for Portugal and Greece for all years as far back as 2000 (the OECD figures for Greece only begin in 2000) implying a massive rise in external debt, more in the form of public debt for Greece, and more in private debt for Portugal. The numbers for Spain also show a persistent rise from around 2000, again implying increased private sector indebtedness to foreigners or foreign ownership of Spanish assets.[6]

4 De Freitas (2011) examines the reasons for Portugal's worsening competitiveness and argues that labour market rigidities, including in the movement of workers between sectors, are the major culprit.

5 Though in the case of Ireland, the National Asset Management Agency purchases of distressed bank assets in 2009-10 crystallised many of these losses. However, considerable uncertainty remains about their ultimate scale.

6 To the extent that the capital inflows were into

Figure 4 Current-account to GDP ratios for Eurozone periphery



In these countries, expenditure far outweighed production for extended periods. Some of this was perfectly justified given EU transfers to the poorest regions in the EU, disproportionately located in Portugal, Greece, and parts of Italy and Spain. Such transfers are capital inflows which necessarily imply current-account deficits. The rest might have been justified if expenditure had been skewed towards investment in productive, income-earning assets or if fundamental reforms had led to productivity gains and investment opportunities for foreign capital. Instead, an increasingly overvalued real exchange rate in terms of relative unit labour cost together with a domestic and foreign illusion that the common currency had abolished the long-run budget constraint, made possible an excessive and long-lived disjunction between domestic expenditure and production. Sheer fraud fed this illusion in the case of Greece, see Orphanides (2010) and the 1994 and 2010 reports of Eurostat for the European Commission. In the case of Spain, as in the UK of the 1980s, a credit and house-price boom and unlike in the UK, a construction boom, sustained the excess in the belief that rising housing wealth would provide adequate collateral for rising debt.

The business climate indicators reflect Eurozone tensions

Much research suggests linkages between product and labour-market regulation and productivity growth[7]. The World Bank "Doing Business" database each year ranks countries on the ease of doing business in different countries in terms of business regulations.

The World Bank also produces country reports which explain the indicators in great detail and discuss changes in the last 5 years. Italy ranks very poorly at 80th out of 184 economies studied, with only Greece ranked lower in the Eurozone. The report for Italy shows a *deterioration* in the overall regulatory ease of doing business in Italy between 2006 and 2011, in contrast to Spain.[8] These World Bank indicators do not cover the labour market though a new set of such indicators has recently been introduced.[9] This is a controversial area and these indicators do not cover trade union power or the ability of workers to impose restrictive practices, except insofar as they affect public labour market regulation. As far as they go, these indicators also suggest that the southern economies have stricter labour-market regulations than the northern ones. In the long run, it is clear that very substantial gains in productivity growth and in lower unit labour costs could be made by the appropriate structural reforms in the southern Eurozone economies.

Much research suggests linkages between product and labour-market regulation and productivity growth

EU structural funds have played an important role in the past in helping poorer regions develop. One obvious area where they could be used in future is in promoting the production and use of solar energy to help meet the EU's carbon reduction targets. Since the southern economies have an obvious locational advantage, well-designed subsidy schemes, avoiding rent seeking and corruption, perhaps in the form of subsidised loans, would clearly favour these economies.

Setting the European Monetary and Fiscal Authority's conditional spreads

As argued above, the collective underwriting of conditional eurobonds would greatly limit differences in the prices at which sovereign debt of different Eurozone countries would trade. However, for issuing governments outside the AAA group, annual side payments would be made to the AAA governments according to spreads fixed annually by the EMFA. The EMFA would need to design a set of rules linking these spreads to performance on observable indicators. Four indicators have been discussed: unit labour costs, the sovereign debt to

foreign-owned holiday homes, the loss in value of these homes is a problem for their owners rather than for Spain.

7 Scarpetta and Tressel (2002) find evidence to suggest that strict product market regulation can reduce productivity and that high costs of hiring and firing workers and hence of labour adjustment in response to technical changes, can reduce incentives to innovate, and hence productivity growth. This is supported by Gust and Marquez (2004) who examined the IT sector in 13 countries over the 1992–1999 period. They find that restrictive labour-market practices, as measured by the OECD employment protection index, had negative effects on investment. Nicoletti and Scarpetta (2003) conclude that product market regulations that impede entry or the threat of new entry have a negative effect on productivity growth.

8 *http://www.doingbusiness.org/~/media/FPDKM/Doing%20Business/Documents/Profiles/Country/DB11/ITA.pdf*.

9 *http://www.doingbusiness.org/methodology/employing-workers*.

Table 1 World Bank "Doing Business" rankings 2011

	Overall	Start bus.	Const. per	Prop. reg..	Get cred.	Prot. inv.	Pay tax	Int. trade	Enf. contr.	Close bus.
Ireland	9	11	38	78	15	5	7	23	37	9
Finland	13	32	55	26	32	59	65	6	11	6
Germany	22	88	18	67	15	93	88	14	6	35
Belgium	25	31	41	177	46	16	70	44	21	8
France	26	21	19	142	46	74	55	26	7	44
Netherlands	30	71	105	46	46	109	27	13	29	11
Portugal	31	59	111	31	89	44	73	27	24	11
Austria	32	125	57	33	15	132	104	25	9	20
Luxembourg	45	77	42	129	116	120	15	32	1	45
Spain	49	147	49	54	46	93	71	54	52	19
Italy	80	68	92	95	89	59	128	59	157	30
Greece	109	149	51	153	89	154	74	84	88	49

Notes: rankings out of 184 countries in overall and nine categories of ease of doing business: Start Bus. = Starting a Business, Const. Per = Dealing with Construction Permits, Prop. Reg.= Registering Property, Get Cred.= Getting Credit, Prot. Inv.= Protecting Investors, Pay Tax = Paying Taxes, Int. Trade = Trading Across Borders, Enf. Contr.= Enforcing Contracts, Close Bus.= Closing a Business. Available at *http://www.doingbusiness.org/rankings*. Note that 'paying taxes' refers to the ease for businesses rather than the government's efficiency in tax collection.

GDP ratio, the current account to GDP ratio and the World Bank's "Doing Business" indicators. A weighted combination of the first three would seem suitable. The World Bank indicator, though highly informative, is not robust enough to be incorporated in an algebraic rule.[10] The rule needs not to fall foul of Goodhart's Law, which suggests that if an economic indicator is made a target for conducting social or economic policy, then it will lose the information content that would qualify it to play such a role. With far greater scrutiny now of national accounts, it is unlikely that a weighted combination of the three indicators could be significantly manipulated by a government. Even if its statisticians somehow managed to cheat on sovereign debt, the poor current-account performance and failure to reduce (the public sector element of) unit labour costs would reveal the lack of progress in fundamental reform – and cheating once found out could reverse previous reductions in costs of debt. The same should apply to the inevitable revisions to national accounts with a simple claw-back in the following year for overoptimistic figures and an extra benefit for too pessimistic figures. A relatively high weight on unit labour costs is desirable because it is most directly related to the fundamental issue of competitiveness and productivity and hence long-run growth prospects. It is thus the most forward looking of the three indicators. It also encourages growth-promoting strategies, since unit labour costs tend to fall with fixed wages when output rises. The current account to GDP ratio has the same feature while encouraging growth of output rather than of domestic demand, though the two are linked. The role of the debt-to-GDP ratio is obvious enough.

The mix of a fixed rule and judgement by the EMFA, with respective weights of perhaps 80% and 20% would give governments predictability in the consequences for their funding spread of their countries' performance, while retaining a small element of responsiveness by the EMFA to other factors such as reforms as measured by the World Bank "Doing Business" indicator.

Lessons from successful currency depreciations

Successful currency depreciations offer useful guidance to the mix of policies required by the Eurozone. One highly successful depreciation was that following the UK's departure from the exchange rate mechanism (ERM) in 1992. Competitiveness was restored without major structural reforms[11]; interest rates which had been linked to high post-unification German rates fell; in an economy with hardly any foreign denominated debt, the financial sector at the brink of a financial crisis recovered; but with unemployment and spare capacity high, and falling house prices creating deflationary pressure, UK inflation was much the same as that of France in the following three or four years.[12] This meant that the gains in competiveness endured and substantially helped the recovery in the UK's growth rate. Of course, foreign holders of UK gilts and other UK fixed interest took a write-down in terms of their own currencies, with some compensation due to the fall in yields.

10 The different components are equally weighted and, as noted above, the overall rankings exclude employment regulations, while the latter do not fully cover the impact of restrictive practices in the labour market.

11 With one major exception: the adoption of a new monetary policy framework paving the way for central bank independence in 1997. The UK labour market had already undergone a transformation in the 1980s.

12 I correctly forecast that the UK would have to depreciate and that the inflationary risks of doing so were negligible, FT (14.9.1992) and Independent (17.9.1992).

If southern Eurozone members left the common currency, their ratios of euro-denominated debt to GDP would rise, worsening their debt-service problems. With large domestic holdings of domestic sovereign debt in each country's banking system, the lending capacity, and in some cases, solvency of banks would be impaired. With unreformed labour markets and powerful union and insider interests, there would also be the risk of wage and price inflation which could wipe out much of the short-term gain in international competitiveness. Short-term nominal interest rates would have to rise if an inflation-targeting monetary framework were maintained and to prevent a depreciation over-shoot of the new currency. This would have negative cash-flow consequences on borrowers where floating rate debt is prevalent. Currency uncertainty and continued doubts about sovereign debt could well raise already high longer-term interest rates further. Thus, currency depreciation without a sovereign debt write-down would be likely to make matters worse.

Helping to solve the wage-price coordination problem

The biggest benefit of currency depreciation is to improve international competitiveness by reducing relative unit labour costs. If wages and prices were set by administrative fiat, the same effect could be achieved by general wage and price reductions. The wage reductions achieved in Ireland, led by the public sector, show that it can be done in a free-market economy. Ireland is an economy with a high share of imports, so that the reduction in the general level of consumer prices would be smaller than in less open economies. This implies that nominal wage reductions resulted in a larger reduction in Irish workers' real living standards than would be the case in Spain and Italy. In these countries, collective nominal wage reductions would eventually be followed by significant price reductions given that over half the cost of domestically produced goods arises from domestic unit labour costs. Thus a 10% cut in nominal wages with prices eventually falling by 6% would eventually result in a real wage cut of perhaps 4%, but with better future employment prospects, particularly if reforms of labour and product market institutions raised productivity growth. However, until prices adjusted, workers would be far worse off, throwing doubt on the political feasibility of such a nominal wage cut.

There is also a coordination problem: What if my wage falls but other wages do not or if firms do not cut prices? Can I trust everyone else to play the game? One way to help solve this problem would be a temporary 10% cut in VAT, conditional on a 10% cut in wages. With a highly visible VAT cut that came into force on a particular date, firms would be under pressure to pass on at least the VAT cut if not all of the fall in unit labour costs.[13] A 10% cut in VAT would typically result in prices falling by less than 10% since not all goods are subject to VAT. The timing and incidence of a nominal wage cut would be different for different types of goods and services and so harder to monitor, unlike the VAT cut. The combination of the two would make it highly probable that, in the short-run, workers would be no worse off. It is even possible that the real consumption wage might temporarily rise. Phased VAT increases, 5% each year for two years would in due course result in an upward drift in prices of around 4% unless offset by improved productivity growth. A temporary VAT cut followed by phased rises also has the advantage of stimulating spending and thus maintaining demand. It does add to sovereign debt but given the rules followed by the proposed EMFA, the improvement in unit labour costs would bring down the cost of debt service, particularly if accompanied by credible labour market reforms. The reduction in these debt service costs would improve confidence and create further positive feedbacks, supporting living standards in the following years. The prize of a successful nominal wage cut makes it worth running this temporary 'fiscal gamble'. Persuading workers to accept a nominal wage reduction will be hard, especially when unions will be asked to accept further reforms such as abandoning national uniform pay and various protections to insiders. The proposal made in the next paragraph further reduces the risk of the gamble going wrong.

What if my wage falls but other wages do not or if firms do not cut prices?

One of the conditions for a successful currency depreciation is having debt denominated in domestic currency. This suggests that for the Eurozone economies accepting nominal wage cuts, their sovereign debt could be written down correspondingly for several reasons.

- First, with lower nominal labour income, the ability to service debt is reduced.
- Second, it provides an additional incentive to solve the coordination problem of bringing down nominal wages to restore competitiveness.
- Third, while the debt write- downs would be modest if wage cuts were modest, they would

13 This VAT cut is addressed at a real time coordination issue between unions and the government where highly visible confidence building measures are needed. The literature on fiscal devaluations, see Farhi et al (2011) addresses a different issue: how to replicate a currency depreciation with an internal fiscal adjustment. They suggest an increase in VAT and lower labour taxes, combined with lower consumption taxes but higher income taxes. In the longer run, such shifts in taxation, favouring producers remain useful policy tools.

act as a long-term signal to discourage moral hazard.[14] The bankers and bond investors who failed to notice worsening competitiveness and rises in debt to GDP ratios and accompanying deterioration in the ability to service future debt servicing deserve some punishment, limited as it would be under this proposal.

- Finally, fairness in burden sharing suggests that domestic taxpayers should not suffer the entire cost of these mistakes. In the context of the conditional eurobond solution discussed above, holders of longer-dated sovereign debt in, for example, Portugal would still benefit. Suppose there were a 15% wage cut and debt write-down for Portugal, and that the government responded to the incentives of conditional eurobonds. Holders of very short-term bonds would suffer the full 15% write down. Once the write-down had occurred, Portuguese sovereign debt would be 100% guaranteed and would trade at the same price as the debt of AAA-countries. Holders of longer dated Portuguese sovereign debt would find a sudden reduction in yields and hence a rise in the value of their holdings, in many cases more than compensating for the 15% write down-of the final principal.[15]

It is also worth noticing that the one-for-one link of a debt-write down with the cut in nominal wages increases the incentives for a country to agree on a nominal wage cut. The spread on sovereign debt payable to the AAA-countries would fall not only because of the formula link with unit labour costs but also because of the formula link with the debt-to-GDP ratio: A lower ratio justifies a lower premium. The combination of incentives is a powerful one for focusing national debates on the need to improve competitiveness and productivity and makes clear the gain to the nation of a cooperative solution.

Martin Wolf and others have pointed to the current-account surpluses in Germany and other core Eurozone countries as the counter-part to the deficits of the Southern Eurozone. One other benefit of wage and price cuts in the Southern Eurozone is that overall Eurozone inflation would fall, allowing the ECB to cut interest rates. This would allow wages and prices in Germany to rise a little faster, also contributing to the eventual rebalancing of the Eurozone.

14 The Irish government's hasty decision in 2008 to provide a two-year guarantee to bond holders as well as depositors in its banking system can be criticised from this point of view. However, subordinated bond holders in several banks had to accept major write downs, see Lane (2011). It is hard to justify the exemption of senior bond holders from some, albeit smaller, haircut.

15 Confining the write down to the final principal rather than applying it to annual coupon payments would be an additional way to soften the effect on bond holders.

As argued above, a maximum 15% sovereign debt write down is a plausible limit to set for Southern Eurozone debt outside Greece. A strict limit is essential to reduce uncertainty in the sovereign debt markets. It is unlikely that a coordinated nominal wage cut of more than 15% is, in any case, politically achievable in Spain, Portugal, and Italy. However, front-loading a nominal wage cut has great advantages in enhancing future growth prospects compared to the slow alternative of relying solely on better productivity growth and a gradual rise in foreign price levels to improve competiveness. The one-for-one link of debt-write down with the reduction in unit labour costs provides an incentive to go for an early nominal unit labour cost reduction since the gradualist alternative might result in a far smaller debt-write down and a long delay in bringing down the spreads payable.

...focusing national debates on the need to improve competitiveness and productivity and makes clear the gain to the nation of a cooperative solution

If a comprehensive solution to the Eurozone crisis of the kind proposed were to be enacted, substantial capital gains in longer duration Southern Eurozone debt from current distressed levels would be made, with the possible exception of Greece. For the ECB which holds substantial amounts of such debt, this would be a great relief. Further, the ECB's necessarily close cooperation with the EMFA would give it an informational advantage relative to private sector investors which would allow it to recoup many of the losses on which on a mark-to-market basis it is now sitting. One would hope that this would reduce ECB resistance to the "credit events" entailed by the limited debt write downs here proposed.

Greece

As noted in the introduction, Greece is a special case. Its euro entry was founded on fraud. Yet unlike in the Madoff fraud, no one has been brought before a Greek court or the European Court of Justice.[16]

16 It is a puzzle that the European Commission, after its 2010 investigation into data irregularities, *http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=COM_2010_report_greek*, particularly after the 2004 Eurostat report, *http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/GREECE/EN/GREECE-EN.PDF*, did not press charges. Perhaps the embarrassment of France and Germany in having opposed the Commission's proposal for stronger inspection of national accounts was a factor. Or perhaps it was feared that the pressing of such charges would precipitate Greek insolvency, damaging the interests of French and German banks. A third possibility is that the Commission feared that Greek ignorance of accounting conventions revealed in the Eurostat reports might have been accepted as a defence. With hindsight, earlier resolve to deal with Greece would have been advisable. It was surely an error to press the ECB to buy Greek debt.

Greece is the closest a country within the OECD comes to being a 'failed state'. With only about one sixth of the UK's population, its core civil service numbers exceed those of the UK. Insiders, such as the public sector unions, the unions of tax collectors, of seamen, of airline pilots, of air traffic controllers, the cartel of chemists etc. hold the rest of society to ransom. Perks and pension rights in the civil service are legendary. Even in the universities, many appointments are by political patronage rather than on grounds of merit, so that Greek students who can afford it to vote with their feet by studying abroad.

However, within the last few weeks signs of hope have emerged for those wishing for a transformation of the Greek state and society. Mario Monti (2011) writes: "what Greece has decided and has implemented is the best signal to date that the euro as a means of structural transformation is working. To anyone with a sense of history and an appreciation of the complexity of politics it is astonishing how quickly Greek politicians and society, with its record of corruption, tax evasion, nepotism and clientelism, and its rejection of merit and competition as guiding principles, have engaged in changes that would normally have required a generation to effect."

By tying financial adjustments to needed labour market adjustments, the proposal cuts the Gordian knots in financial and labour markets that are strangling the Eurozone.

Yet, it seems that only by holding a gun to the head of the government has its resolve to reform been achieved. And it remains to be seen whether it can actually govern or whether it will let the strike of tax collectors, who wish to hold onto their ability to do under-the-table deals, defeat its ability to raise revenue. It is clear that the above proposals of how to deal with the crisis in the rest of the southern Eurozone will not work if a government cannot govern. It seems that a managed write down of Greek debt of the order of 50% is being discussed in some official circles. This would give the Greek government scope to refinance its banking system where much of its own sovereign debt is held. At that point, provided the government has demonstrated its capacity to govern, Greece might be able to participate in the conditional eurobond programme proposed here. The alternative, abandoning the euro, threatens hyperinflation and social breakdown if a weak government resorts to the printing press to pay salaries.

Conclusion

Historians of monetary unions have often observed that unions without a central fiscal authority and with too divergent institutions have a high probability of disintegration. In the 1998 issue of the Oxford Review of Economic Policy devoted to European Monetary Union, my colleagues were sceptical about the Stability and Growth Pact, while I worried that differences in housing and credit market institutions would cause serious tensions with a common monetary policy, as Ireland and Spain proved (see Maclennan et al. 1998).[17] But there is nothing like a crisis to finally bring on the necessary reforms. The Eurozone can still survive – with the right policies. The policies proposed here provide the right fiscal incentives for each country without draconian central fiscal control. They also provide deeper reform incentives to enable the poorly performing economies to return to economic growth and to avoid a future existential crisis. They discourage moral hazard and arrive at a fair distribution of burden sharing between taxpayers in different countries and holders of sovereign and bank bonds. By tying financial adjustments to needed labour market adjustments, the proposal cuts the Gordian knots in financial and labour markets that are strangling the Eurozone

The history of the Stability and Growth Pact and current political disagreements between European governments might make one pessimistic on the prospects for setting up a European Monetary and Fiscal Authority with the appropriate powers. However, the depth of the current crisis, international pressure and the need to 'retrofit' the machinery of the Eurozone as well to shift its culture are so great that I remain an optimist.

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