CERGE-EI Insights No. 2 November 16, 2011

CERGE EI

DEBT DYNAMICS AND THE EURO[1]

by Alan Brown[2]

The crisis of confidence over government debt, evidenced on one side of the Atlantic by Standard & Poor's downgrade of the US government to AA+, and on the other by the continuing eurozone crisis threatening to engulf Italy and Spain, has taken a long time coming. Yet at the heart of the problem lies a build-up in debt levels in Western countries which goes back decades. So why now? It is always impossible to predict which straw will break the camel's back, or which grain of sand will cause the avalanche. Japan (downgraded to AA- in January, 2011) is still able to borrow at close to 1% while carrying a Debt/GDP level well above 200%.

This article attempts to look in general at the question of why markets have been so spooked by US and European debt levels even though they are very substantially lower than Japan's. Subsequently, I focus on the special issues affecting the eurozone. There are obvious substantial differences among the US, Europe, and Japan, but one common factor lies at the heart of today's market turmoil: investor fears have been expressed in the equity markets, not in the currency or debt markets. After all, at the time of writing, in spite of government debt concerns, 10-year yields in the US, Germany, Japan and the UK are all at, or near, year-to-date lows. Finally, I consider the options and consequences for a country such as Greece to leave the eurozone.

A Brief Bit of History[i]

In the 1920s and 1930s we had another fixed exchange rate system, the Gold Standard. The mantra of the day was that countries operated broadly balanced budgets, devaluation was not an option and debt problems were dealt with the old fashioned way, through austerity programmes. Sound familiar? In this world, wealth transfers from debtor to creditor nations.

In the 1950s and 1960s we had all adopted Keynsian-style policies. Fiscal demand management was the order of the day, devaluation was possible and the unsurprising end result was inflation. In a world of inflation, wealth transfers from creditor to debtor countries.

Germany is not only the most powerful country in the eurozone, it is also the largest creditor nation and has a well-understood historical abhorrence of inflation. No surprise then that Germany today advocates policies that sound remarkably similar to the 1920s and 1930s.

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[1] Observations prepared for CERGE-EI Symposia on the Future of the Euro

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A country like Greece is therefore faced with three alternatives:

- Get on top of your Debt/GDP problem by growing the denominator. Trouble is that, with Greece struggling to generate any real GDP growth, this could only happen if somehow Greece generates inflation to boost nominal GDP. Of course, doing so would further compound its competitiveness problems that are at the heart of the structural imbalances that lie between North and South Europe.

- Alternatively, Greece could attack the numerator by putting in place such a fiscal squeeze that it was able to accelerate repayments of debt. To do that would inevitably put Greece back into recession, shrinking the denominator at the same time and driving the country to insolvency.

- Or finally, Greece could buy enough time from its euro partners to be able to gradually improve its competitiveness through economic reform and wage restraint, a process that would take at least a decade.

An unpalatable choice then among a temporary fix but further loss of competitiveness, savage fiscal cuts leading to insolvency, or the country gets to stand on the naughty step for a decade, with the last being the only option on the table from Greece's partners, and one which tests the political patience of both the debtors and creditors. The creditors are getting restless at being asked to pick up the bill, and the debtors are literally rioting against the austerity measures being implemented.

Why won't the Greeks take their medicine?

What is not clearly understood is the impact of a fixed nominal exchange rate system during a period of fiscal austerity. We live in a world of double-entry bookkeeping. An improvement in public sector finances has to come at the expense of something else. That 'something else' can only be either the private sector or the external account. There is nothing else. If you are able to drop your nominal exchange rate by, say, 25%, as happened to many countries in the Asian crisis of the 1990s, the hope is that much of the offset to an improvement in the public sector will come through the external account via an improvement in the current account.

In the absence of a drop in the exchange rate, the current account is only likely to improve in the short-term as a result of a drop in imports as the domestic economy slips back into recession! In that case, every €1 improvement in the public sector comes at the direct expense of, say, 80 cents in the private sector. The mechanism is higher taxes, lower benefits and reduced salaries.

Such a direct reduction in living standards is very painful and therefore tests the will of the electorate much more than an indirect drop in living standards as the exchange rate falls and imports become more expensive. Those of us in the UK at the time that we came out of the Exchange Rate Mechanism (ERM) with a 25% drop in the pound overnight in September 1992 remember that it heralded in fifteen years of low inflationary growth. We have quite forgotten that our Greek holidays had got much more expensive.

A counter-argument is often made that any competitiveness gains are often transitory and are quickly eroded through rapid growth in nominal wages. Certainly there were many occasions in

the past where countries such as Italy experienced multiple devaluations without a sustained improvement in competitiveness. However, given the current high level of unemployment and very weak economic conditions in Greece, it is difficult to see wage growth accelerating any time soon.

Debt Arithmetic

Of course it is not just Greece that is of concern; markets have recently turned their attention to Spain and Italy. At first sight, a focus on Italy seems somewhat 'unfair'. After all, Italy's primary budget is in surplus. Their deficit arises mainly from debt service costs. Even then the aggregate deficit is materially less than in the UK. Granted, the stock of debt is high at around 120% of GDP, but the maturity profile is long and much of the debt is held domestically. So what's the fuss about? Italy too has lost a lot of competitiveness – over 30% against Germany since 2000. With low nominal GDP growth, Italy is quite sensitive to the rate that it pays on its debt. If Debt/GDP is to be stable, or better still, declining, Italy needs to ensure that the growth rate of its debt is less than or equal to growth in nominal GDP.

Growth in nominal GDP, $Gn = (1 + Gr) \times (1 + i)$
Or $\sim Gr + i$ Where Gr = Real GDP growth and i = inflation

Growth in Debt, $Gd = Pb + Debt/GDP \times Fr$
Where Pb = primary balance as % of GDP and Debt/GDP x Fr = Debt service cost and Fr = Funding rate

And so for stable/declining Debt/GDP

$Pb + Debt/GDP \times Fr \leq Gr + i$
If Pb = 1.9%, Gn = 3.1%, Debt/GDP = 120%, then
$Fr \leq 4.2\%$ (as opposed to 5.7% for Germany and -0.2% for Greece)!

Hence market concerns that if Italian bond yields stayed in the 6-7% territory (they renaged between between 6.8% and 7% during the third week of November) for a long period of time, Italy's Debt/GDP could start to climb further and, in the limit, could drive the country to insolvency.

Italy has announced that they will bring forward measures to reduce their budget deficit more quickly, which will involve generating a larger primary budget surplus. The country should also bring forward structural reform to help increase competitiveness and boost nominal GDP growth. With assistance from the ECB to keep a lid on Italian bond yields, there is then no reason why Italy's debt problems should not be manageable. However, the ECB's role (or EFSF) is critical here, as Italy needs time to balance its budget and introduce supply-side structural reforms.

The Table below provides the data for a sample of countries drawn from European Commission forecasts for 2012 (except where stated). No doubt these forecasts would be revised down substantially if they were updated today! Note that for funding rates we have used current 10-year government bond yields. Government bond yields are *not* indicative of current aggregate funding costs, but they do indicate the direction of where funding costs might go if yields

remained at current levels for an extended period of time. Readers are invited to play with the data as they see fit. It should be immediately obvious that Greece's position would be completely unsustainable if Greece had to rely on public market access for funding for any length of time.

The model is very sensitive to the inputs, however. Indeed, most forecasters expect Italy to slip back into recession for all of 2012 and 2013. If Gn = 0 in 2012, as seems quite likely, the break-even funding rate drops to something closer to 1.6%! That is the reality that markets are confronting today.

Although this model is insightful, we don't pretend that it tells the whole story. For example, arguably the reason why Japan continues to borrow at such low rates while carrying such high debts is because, first, the country has a structural current account surplus so that it acquires offsetting assets at the same time as it issues debt. (In other words we need to see the whole balance sheet.) And second, Japan has historically had a high domestic savings rate so that it ended up selling most of its debt to its own citizens. Note that neither the US nor the UK have current account surpluses nor high savings rates!

2012 Forecast %	GDP Deflator	GDP Growth	Primary Balance	Debt/GDP	10 Year Bond Yield *
United States	1.5	2.7	-5.7	107.0+	2.20
Japan	0.2	1.6	-7.1	218.7+	1.05
UK	2.1	2.1	-3.6	87.9	2.50
Germany	1.5	1.9	+1.2	81.1	2.25
France	1.8	2.0	-2.4	86.8	3.05
Italy	1.8	1.3	+1.9	119.8	5.10
Spain	1.1	1.5	-2.9	71.0	5.00
Portugal	1.2	-1.8	+0.3	107.4	10.10
Ireland	0.9	1.9	-4.2	117.9	9.45
Greece	0.4	1.1	-1.8	166.1	15.00

* Source: Factset, Bloomberg 11th August, 2011

+ Source: OECD

Debt/GDP = General government gross debt, % of GDP

Primary balance = General government, % of GDP

The ECB and the EFSF

Given the importance of the ECB (European Central Bank) and the EFSF (European Financial Stability Facility) in ensuring that markets don't create their own reality, it is important to understand their institutional limits. The EFSF is not a central bank and so cannot create money it does not have. The big question mark therefore is whether it has sufficient resources. Most commentators argue (and we agree) that if the EFSF is to provide an adequate firewall to protect Italy and Spain, it will need much more than the €440 billion it has at its disposal today.

Estimates range from €1 to as high as 3 trillion. And before the EFSF can get started with direct interventions in the bond markets, it needs to receive ratification from all 17 eurozone member countries.

Now a central bank can, in theory, create money without limit. However, unless intervention is sterilised, printing money ultimately has serious adverse consequences for inflation, an anathema to the ECB and, of course, to the Bundesbank. In the case of the ECB, there are further political constraints. While the ECB can create money, it cannot create capital. The ECB gets its capital from the central banks of the entire EU. However, the 10 non-euro area central banks have only paid up a nominal amount. The 17 eurozone member countries account for about 98% of paid-up capital. Germany and France account for about 46% between the two of them.

The ECB then needs the support of its member central banks in order to operate. The ECB has, in one sense, more independence than any other central bank on the planet in that no country has sovereignty over it, but it still cannot operate without constraints. Not that the ECB shows any signs of running amuck. Indeed, it is fair to say that the ECB does a passing impression of a reluctant bride, resisting until the very last minute. Yet resistance is also growing amongst the creditor countries. In the elections in April the True Finns party garnered 19% of the vote just behind the conservative NCP and the Social Democrats. Angela Merkel's own room for manoeuvre is wafer-thin if she is to hold her coalition together.

The question is: forwards or backwards?

We have always said that monetary union without fiscal union leaves the eurozone vulnerable to exogenous shocks. It is interesting to see what hoops the politicians have had to jump through to provide support for peripheral countries. Commenting on the first Greek bailout, Christine Lagarde, then France's finance minister, said, "We have violated all rules of law because we agreed that we really wanted to save the eurozone"[ii].

It increasingly appears that the eurozone must either move forward to something approaching full fiscal union, or pull back by redrawing the boundaries of the eurozone to encompass only a hardcore of countries close (in every sense of the word) to Germany. Remember Sherlock Holmes, "When you have eliminated the impossible, whatever remains, however improbable, must be the truth". I will leave readers to make up their own minds as to which is the 'truth'. However, staying where we are today really does seem to be an outcome we should eliminate.

A move to fiscal union surely ultimately implies political union. Anything else would hold out the spectre of 'taxation without representation'.

Politicians protest that it is unthinkable to consider a change to the euro, but then they would, wouldn't they? Imagine if they didn't say that! See earlier Schroders Talking Point articles[iii].

Leaving the eurozone

It is often claimed that the economic costs, let alone the political costs, of a country leaving the eurozone would be catastrophic, and certainly it is possible to envisage a scenario where that would be the case, but it is not a given. Everything depends on whether a change in membership is 'orderly' or 'disorderly'. No less than 69 currency unions (on the narrowest definition) have come to an end since the second World War[iv]. The fact that that this is little known strongly suggests that the sun still rises in the morning! And the 69 currency unions that ended do not include Sterling coming out of the ERM in 1992 nor the Czech/Slovak currency union that broke

up in January 1993. In some ways this is the most interesting example, as it involved a euro-style currency union where two countries shared (albeit briefly) a single currency and a single central bank.

What is clear is that there are no 'costless', pain-free solutions. Correcting the structural imbalances that have built up in the eurozone will require some painful adjustments, but continuing with the status quo is not an option. Writing down bank exposures to the peripheral countries will be painful, but allowing these exposures to continue to grow (as they inevitably will if the periphery continues to run a large deficit with Northern Europe), only puts off the day of judgement and makes the problem ultimately worse.

The difference between an orderly or disorderly change is critical. There is no provision for a country to leave the eurozone and so any departure requires a negotiation. The technical issues of introducing a new currency are well-rehearsed and not that complicated. Clearly, though, there would be a need for temporary capital controls for a short period of time to avoid massive capital flight. New notes can actually be introduced quite quickly through over-stamping existing currency. In today's modern world, there are far more ATM (and other) machines that will need recalibrating, but, again, that it is not a major issue.

Writing off sovereign debt is one thing, but a more material issue is the redenomination of private sector contracts, where there has to be a loser at one end of the deal or the other. Either the Greek entity continues to carry euro obligations, which in the limit could easily drive them to bankruptcy, or the other party takes a write-off as contracts get redenominated into New Drachma. Either way there will be losses to be realised. Once again, though, there is precedent.

In an orderly exit, losses will occur. There is no escaping this. Banks may well need additional capital and in some circumstances, if the private sector is unwilling to provide capital at a reasonable price, banks may require public support. A condition of public support will likely be that both equity and unsecured debt holders will bear significant, possibly 100%, losses.

The difference between an 'orderly' and 'disorderly' exit is fundamentally whether a robust firewall can be created to avoid a domino effect embracing other countries - Portugal, Ireland, and, most critically of all, Italy. Italy's stock of debt is €1.9 trillion, which goes well beyond the existing resources available for support. A sensible approach would be to make a Greek debt write-off also conditional on exiting the euro. Other indebted nations would then know that the price for debt relief was exit, reducing the temptation to seek similar forgiveness.

Conclusion

Equity markets have recently been in a tailspin while ten-year US bond yields have sunk to just 2.0%. Meanwhile, the ECB has had to do what was once unthinkable, intervene directly to buy Italian and Spanish bonds. I cannot think of another occasion when a central bank has tried to control both ends of the yield curve! These are truly extraordinary times. Underlying these market moves has been a raft of poor economic news. While we still believe double-dip can be avoided, concerns are clearly rising. Why else would the Fed limit their own room for manoeuvre,

committing themselves to keeping interest rates low until the middle of 2013? Even if we are right and we avoid double-dip, growth will at best be anaemic in the West, quite likely for a number of years. This makes adjustment through prolonged austerity programmes a lot harder. And in the eurozone a return to recessionary conditions is now highly likely in a number of countries, including, critically, Italy. There is every likelihood that the eurozone will repeatedly be back on the front pages until we ultimately find out whether it is going to move forward or backwards. To hang together, the euro needs two necessary conditions to be met: First, the political will of both debtor and creditor nations needs to stay firm (watch out around election times). Second, markets must not end up creating their own reality, something they have got perilously close to already. As I have said before, this tragedy (or pantomime) has many more acts to go. Stay tuned.

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[i] Wider political lessons from the European Sovereign Debt Crisis, John Nugée

[ii] Capital Economics, 10th August 2011

[iii] Schroders Talking Point, A decade on, the euro re-visited, March 2009, Why Germany will break the euro, July 2010, Dissolving currency unions – here's how, October 2010

[iv] Andrew K. Rose, Checking Out Exits from Currency Unions, MAS, April 2007