THE DEBT CHALLENGE IN EUROPE

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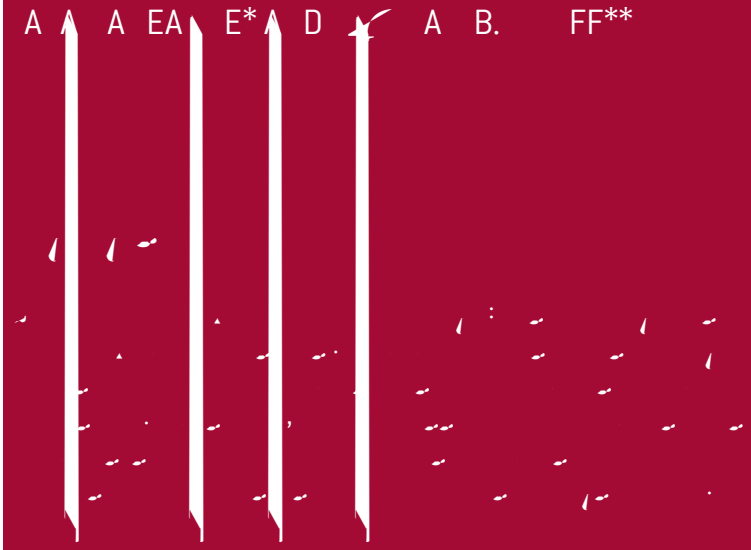


1 Introduction

At the heart of the ongoing crisis in the euro area are market concerns about the sustainability of sovereign debt in some EMU countries. Standard equations of public debt dynamics show that if the interest rate on the debt exceeds the nominal growth rate of GDP, then stabilisation of the debt-to-GDP ratio requires that the country must run sufficiently large primary (that is, non-interest) budget surplus. Based on this analysis, fiscal consolidation to reduce primary budget deficits is an important part of the prescription for EMU countries with sovereign debt difficulties. Fiscal consolidation is expected to increase investor confidence in the sustainability of public debt, thereby lowering interest rates on sovereign debt. Lower interest rates further improve the debt dynamics.

An issue that has not received the attention it deserves in the debate over sovereign debt sustainability is the interaction between public and private debt. Rising fiscal deficits can support aggregate demand and thereby facilitate private sector deleveraging in cases where businesses and households find themselves over-indebted. It follows that as governments implement needed fiscal consolidation programs, the accompanying increases in taxes and cuts in spending may frustrate the efforts of the private sector to reduce the debt overhang (Eggertsson and Krugman, 2010). This suggests a potential policy dilemma between public and private sector debt reduction. For that reason, it is important to understand how over-indebted businesses and households might respond to planned fiscal policy actions in the current crisis.

A second potential policy dilemma relating to private sector debt results from the fact that the EMU countries with sovereign debt problems also often have overvalued real exchange rates. To pay down external debt, these countries require real exchange rate depreciation through cuts in prices and wages to boost net exports. However, it takes time for improvements in competitiveness to translate into faster export and income growth. In particular, empirical evidence suggests that declines in export price relative to import prices may in the short-run reduce net exports.[1] Thus heavily indebted countries, therefore, required depreciation of the real exchange rate may push up debt relative to net exports and income in the short-run, thereby temporarily exacerbating the over-indebtedness problem.

Against this background, this paper discusses corporate and household debt and the related adjustment process. Our discussion relies partly on flow-of-funds (or financial account) data that have recently become available (Be Duc and Le Breton, 2009; Dieppe, Kindberg-Hanlon and Kavonius, 2009; Bezemer, 2009). The remainder of the paper is structured as follows. The next section provides a horizontal overview and discusses the interaction between the processes of debt reduction and real exchange rate adjustment. Section 3 discusses corporate debt while section 4 provides an analysis of household debt. Section 5 develops policy recommendations.

[1] Backus, Kehoe and Kydland (1994) note that the negative effect of a terms of trade deterioration usually reverses itself after 2-8 quarters, giving rise to a J-shaped pattern.

2 Debt and competitiveness: an overview

Figure 1 documents the net external financial assets (as a percentage of GDP) of Greece, Portugal, Ireland, Spain and Italy. As can be seen, net external liabilities currently exceed 100 percent of GDP in Greece and Portugal. Ireland's net external liability is also close to 100 percent, though some caution is required in interpreting the data for Ireland.[2] In Spain, the figure is around 90 percent. Only in Italy are the net external liabilities relatively low, at less than 20 percent of GDP. Net external liabilities, of course, find their counterpart in net external assets of surplus countries, which have increased over the past decade in particular in Germany.

Large external liabilities reflect past increases in domestic liabilities, which have increased differently in different sectors of the economies. Figure 2 provides data on net assets of the different sectors of the economy used. Households are typically holders of net assets, while corporations and governments have a net debt position. The figure reveals that in Greece the main driver of the large liability position is the government sector, while in Spain, Portugal and Ireland the large accumulation of liabilities results from the corporate and household sectors. In Italy, large government debt is offset by large asset holdings of the household sector so that the net position of the economy is more balanced.

Figure 1: Net external financial assets as % of GDP (2009)	Figure 2: Net assets in the different domestic sectors as % of GDP (2009)
Source: EUROSTAT	Source: EUROSTAT

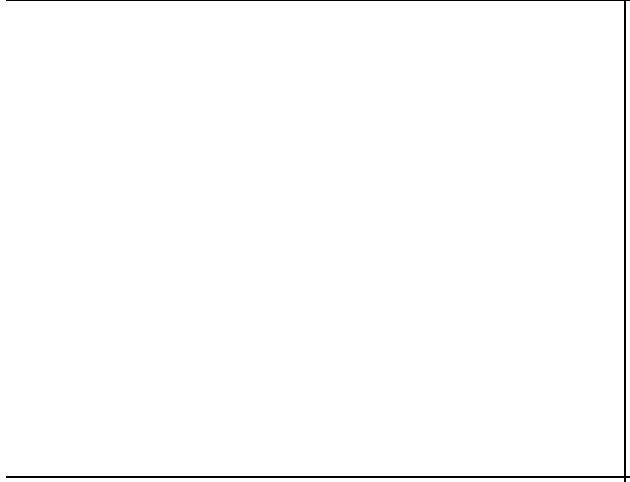
[2] Gros (2011) estimates that based on accumulated current account balances over the past 25 years, Ireland's external liabilities are about 20 percent GDP, compared with the figure of 100 percent reported by Eurostat. The differences in estimates may in part reflect distortions in the data caused by the presence of the large International Financial

These net positions conceal very large gross financial asset and liability positions. Ireland stands out with financial assets and financial liabilities around 18 times GDP, though these figures are distorted by the inclusion of activities in the International Financial Services Centre.[3] But the gross positions for the other countries are also large, easily constituting stocks of assets and liabilities exceeding several years' worth of income.

Such large stocks can render countries' net external positions vulnerable to changes in the prices of assets and liabilities. Suppose that asset values react differently to changes in economic circumstances than liabilities. In that case, an economic or financial shock has the potential to change markedly the net asset position of a country.[4]

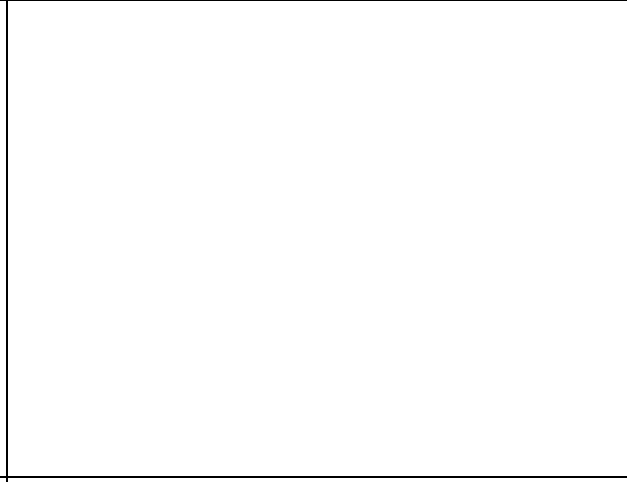
A large part of the increase in liabilities is in the form of debt; that is, securities other than shares (bonds) and loans (Figure 4).[5] This may put a heavy burden on the economies concerned in a recession as the value of the debt remains unchanged while income and the values of non-financial assets can fall markedly.

Figure 3: Gross assets and liabilities as % of GDP (2009)



Source: EUROSTAT
Note: Assets and liabilities are defined as the sum of the three categories: securities other than shares, loans, and shares and other equity.

Figure 4: Net assets/liabilities across categories as % of GDP (2009)



Source: EUROSTAT

These high external and internal debt burdens must be seen in the light of the significant competitiveness adjustments that are required in these economies. Figure 5 summarises the divergence in competitiveness based on unit labour costs for these economies. It shows that there has been a continuous divergence in relative unit labour costs since 1999. This divergence in

[3] According to the IMF, Ireland's reported gross external liabilities are around 1,100 percent of GDP (end-2010), but most of these liabilities are related to the IFSC entities and are largely offset by external assets. Excluding the IFSC, gross external liabilities are estimated to be about 330 percent of GDP. www.imf.org/external/pubs/ft/scr/2011/cr11276.pdf

[4] An extensive discussion of valuation effects can be found in European Commission (2010).

[5] Again, the data for Ireland are distorted by Ireland's role as an international financial centre. In particular, the breakdown between equity, loans and bonds in large part reflects Ireland's relatively large mutual funds industry.

competitiveness has not been corrected to any great extent during the crisis, except for the case of Ireland and to a lesser degree Spain.

The loss in price competitiveness has gone hand with a significant decline in the share of the

The discussion above suggests that many of the economies that are the focus of this paper face a double challenge. On the one hand, they have to deal with large debt burdens. These debt burdens can be difficult to cope with when interest rates on public and private debt are rising and when incomes are falling because of the recession. Needed fiscal consolidation further depresses incomes, both directly through budgetary measures such as tax hikes and indirectly by aggravating the recession.

On the other hand, the economies in question need to increase their competitiveness in order to grow and to be able to service their foreign debt. This is particularly valid for those economies that hold

adjustment in corporate borrowing has thus come at the expense of an increase in government borrowing.

How much has corporate debt and leverage adjusted? Figure 7 plots the debt to GDP ratio and reveals that corporate debt levels have barely started to decline.[7] Similarly, corporate leverage ratios continue to remain high and have not adjusted much (Figure 8).

Figure 7: Debt to GDP ratio, non-financial corporate sector (1999-2010)

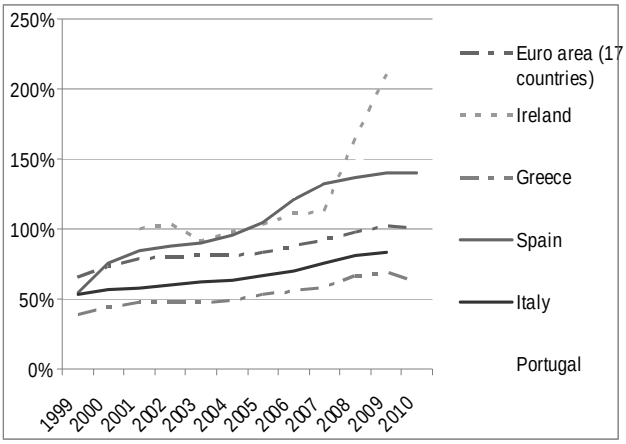
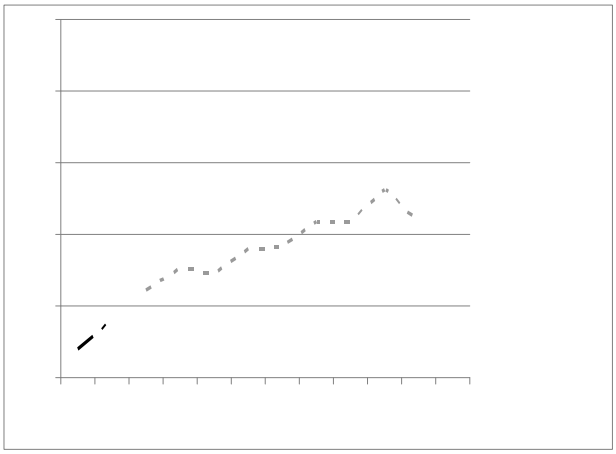


Figure 8: Leverage*, non-financial corporate sector (1999-2010)



of central variables, starting from the year prior to the balance sheet adjustment episode (t=0) up to the year t=4.[8]

Table 3: Consequences of corporate balance sheet adjustment (1)

	t=0	t=4	Actual change (2)	Average change in entire sample	Effect of balance sheet adjustment	Number of episodes
	(A)	(B)	(C)=(B)-(A)	(D)	(E)=(C)-(D)	(F)
Debt / GDP	60.3	58.4	-1.9	5.2	-7.1	12
Leverage (3)	101.2	85.3	-15.9	-1.2	-14.7	12
Liquidity / VA (4)	30.0	33.4	3.4	0.9	2.5	10
Investment / VA	26.1	23.2	-2.9	-0.2	-2.8	16
Savings / VA	17.2	22.3	5.0	0.4	4.6	16
Compensation of employees / VA	60.2	55.6	-4.6	-0.9	-3.7	20
Real growth			6.6	9.9	-3.3	24

(1) To ensure a constant size of the sample for every year, the table covers only those events which lasted more than 4 years and for which the respective data is available. The number of observations per variable differs for due to data availability reasons. Period t=0 is the year prior to the balance sheet adjustment. "VA" is value added.
(2) In the case of 'real growth' the actual change is the difference between the cumulated growth during the 4-year adjustment period and the cumulated growth in the broader sample during an average 4 year period.
(3) Leverage is measured by the ratio of debt to equity (data from the balance sheet section of national accounts).
(4) Liquidity is measured by corporations'' holdings of "currency and deposits'' (data from the balance sheet section of national accounts).
Source: Ruscher and Wolff (2012).

[8] The set of countries is kept constant during this period so that changes in the values are not driving by changing samples. For different variables, the availability is different and this explains the different number of observations per variable considered.

A number of key features of corporate balance sheet adjustment can be discerned from Table 3 and

not only weigh on consumer spending in crisis countries, thereby hurting prospects for growth, but could also threaten the stability of the banking system. In turn, banking problems could dampen confidence and restrict the supply of credit to businesses, further depressing economic growth and exacerbating the crisis (Fisher, 1933).

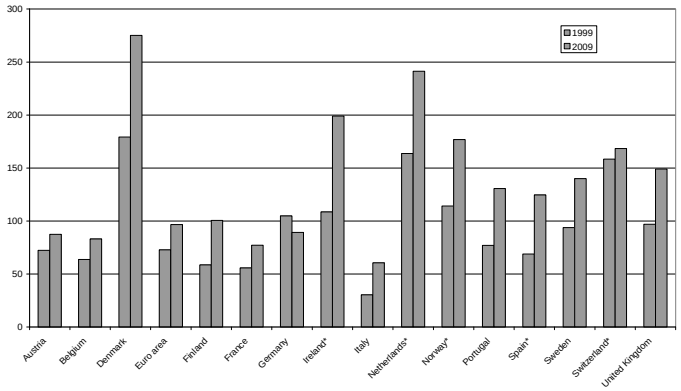
As discussed earlier, there is also an interaction between needed improvements in competitiveness and high levels of indebtedness. Depreciation of the real exchange rate through cuts in nominal wage rate should eventually boost net exports and employment as the country gains global market share. As such, falling wages do not necessarily mean lower aggregate disposable incomes, and in time should boost disposable incomes as new jobs emerge in export sectors. However, there may be a timing issue here. Economic theory suggests that this so-called 'competitiveness channel' of adjustment in a currency union operates gradually and with a lag (European Commission, 2008). Therefore, in the near term, the ability of households to absorb large wage cuts may be limited by high levels of indebtedness. Moreover, as discussed in the previous section, the empirical evidence shows that corporate balance sheet adjustment also puts downward pressure on wages.

For these reasons, it is important to look at the facts on household debt in EMU countries, especially in the crisis countries where many households may find themselves over-indebted and where large-scale budgetary and competitiveness adjustments are required. As in our study of corporate deleveraging earlier, we examine the process of household deleveraging in crisis countries. In particular, we explore previous episodes of household deleveraging and what lessons we might learn from these past experiences about what EMU membership may imply for the process of deleveraging.

How much debt did households take on during EMU?

In most European economies, household indebtedness has risen sharply since the late 1990s. As shown in Figure 9, the ratio of household debt to disposable income in the euro area on average increased from 73 percent in 1999 to 97 percent in 2009. The rise in household indebtedness during EMU marks the continuation of a broader trend across advanced countries in which average household debt as a percentage of GDP in the whole OECD area has doubled from about 40 percent to 80 percent over the period 1985-2005.

Figure 9: Household debt, 1999 and 2009* (% of disposable income)



Source: EUROSTAT, *Ireland and Netherlands, 2002 & 2009; Norway and Switzerland, 1999 & 2008; Spain, 2000 & 2009.

The largest gains in household indebtedness in the euro area were recorded in Ireland (where household debt jumped roughly 90 percentage points of disposable income during 2002-2009), the Netherland, Spain and Portugal. Still muted increases were registered in Austria, Belgium and France. Household indebtedness fell in only one country, Germany, bringing German household debt to nearly 10 percentage points of disposable income below the euro area average in 2009 from more

rates in Ireland and Spain contributed to housing bubbles and rapid increases in household indebtedness.

Figure 10: Real short-term interest rates* (%)

Housing is typically the largest asset owned by a household. Though rapid rising house prices have been accompanied by large increases in household indebtedness, the net wealth of households has generally increased. However in countries that experienced house price booms and busts over the past decade or so (Ireland and Spain), net wealth is now deteriorating because of the ongoing declines in housing values.

Though debt-to-income ratios have increased sharply, the household debt service burden -- that is, households debt service payments relative to their disposable income -- has been relatively stable. This suggests that the rise in indebtedness has largely been offset by the decline in interest rates on household loans. Of course, interest rates were a factor in boosting assets prices during the last decade, including the price of housing. Higher prices, in turn, required households to take on increased mortgage debt.

Other things equal, declines in disposable income pose risks to households' debt burdens. In countries with large public debt levels, necessary fiscal consolidation will reduce disposable incomes through higher taxation burdens and lower social transfer payments. Therefore EMU countries with higher levels of both public and household debt would appear to be most vulnerable. Figure 11 presents gross household and general government debt for euro area economies in 2011[11]. Both Ireland and Portugal have above euro-area average levels of both household and public debt, strikingly so in the case of Ireland. Spain has above average levels of household debt, but below average public debt; while in the Italy, the opposite is true

Figure 11: Government and household gross debt (% of GDP)

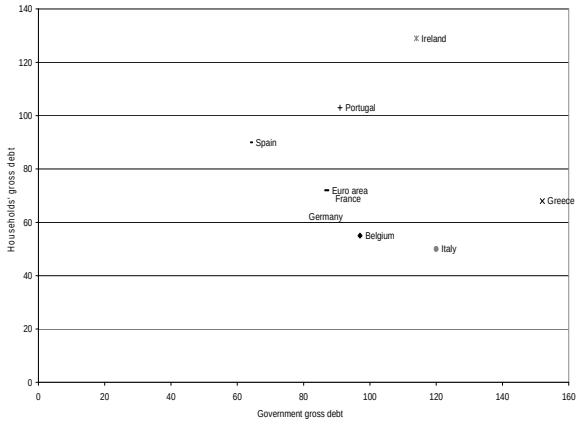
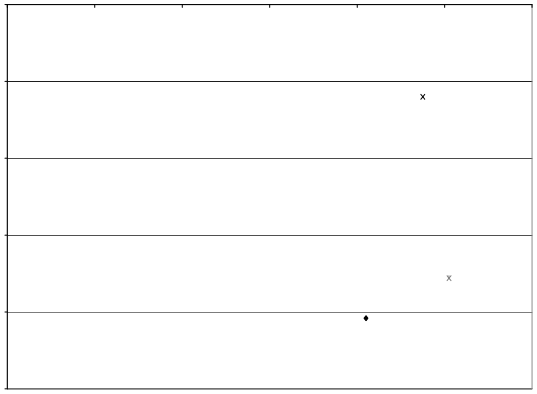


Figure 12: Government and household net debt (% of GDP)



household debt, though they caution that their estimates of the effect on growth of household debt is very imprecise. Relating these estimates to the data presented in Fi

Our data end in 2009, but other sources of data can help to update the picture. In Ireland, banking data show that loans outstanding to households were down 2.3 percent in 2011:Q1 compared with the same period a year earlier. Indeed, annual growth to the household sector in Ireland has

Other countries' experiences with household deleveraging

Unlike non-financial corporate debt, episodes in which household indebtedness records annual declines have been rare in Europe over the past few decades. This means that we do not have a broad sample of episodes of household deleveraging to study.

The remainder of the section focuses on the three cases we can identify from our data in which household debt (as a percentage of disposable income) recorded negative annual growth in one or more years. These episodes are: Finland (1990-1997), the United Kingdom (1991-1997) and Sweden (1993-1995).[13] Each of these episodes was associated with the bursting of a large housing and credit bubbles, recessions, currency crises, and in the case of Finland and Sweden, severe banking crises.

Table 5: Real GDP Growth

	1989	1990	1991	1992	1993	1994
Finland	5.4	0.1	-6.0	-3.6	-0.9	3.7
Sweden	2.8	1.0	-1.1	-1.2	-2.1	3.9
UK	2.3	0.8	-1.4	0.1	2.2	4.3
	2007	2008	2009	2010	2011f	2012f
Greece	4.3	1.0	-2.3	-4.4	-5.0	-2.0
Ireland	5.2	-3.0	-7.0	-0.4	0.4	1.5
Italy	1.5	-1.3	-5.2	1.3	0.6	0.3
Portugal	2.4	0.0	-2.5	1.3	-2.2	-1.8
Spain	3.6	0.9	-3.7	-0.1	0.8	1.1

Source: OECD for Finland, Sweden and UK. IMF WEO September 2011 for others.

[13] Data for household indebtedness in Sweden are only available from 1993. It is likely that household deleveraging began a few years earlier, along lines of what happened in Finland.

As shown in Table 5, Finland, Sweden and the United Kingdom suffered recessions in the early 1990s.

shows the change in the indebtedness ratio, measured as the change in the natural log of the ratio over the indicated period. This change in the ratio can be decomposed into the change in the (natural log of the) stock of debt and the change in the (natural log of the) disposable income. For example, the Finnish indebtedness ratio fell by approximately 39 percent between 1989 and 1997, of which about one-third resulted from a fall in debt and two-thirds from a rise in disposable income. Table 7-9 in Appendix 1 provide detailed data on debt, disposable income, and the indebtedness ratio.

Table 6: Decomposition of changes in indebtedness ratio

Country	Time period	Change in indebtedness ratio (c = d-e)	Change in debt (d)	Change in disposable income (e)
Finland	1989-1997	-0.39	-0.13	0.26
Sweden	1993-1997	-0.01	0.07	0.08
UK	1991-1997	-0.10	0.27	0.36

Several aspects of the Finnish experience are worthy of comment. First, household debt continued to rise through 1991, even though economic activity slumped that year. This suggests that it may take a while for households to realise that the boom is over. Second, households managed to pay down about 7½ billion mk of debt between 1992 and 1996, equivalent to about 20 percent of the stock of debt in 1991. Third, disposable incomes rose in most years of the adjustment, with the exception of 1993 and 1994. By 1995, disposable income was already much higher than at the height of the boom in the late 1980s.

What is most striking about the UK experience is that in no year did UK households pay down nominal debt. In fact, debt levels were markedly higher in 1997 than 1991 when the indebtedness ratio peaked. The reduction is indebtedness after 1991 was achieved by continuous increases in disposable incomes. The role of rising disposable income in helping over-indebted households to deleverage in all three countries is an important feature of the earlier experiences.

5 Policy options and conclusions

The indebtedness of the corporate and household sectors in the peripheral euro area economies rose markedly over the first decade of EMU. Recent data suggest that these sectors have responded to the financial crisis, deterioration in access to finance and weakening growth prospects by beginning a process of balance sheet adjustm

increase market share. Indeed, given the weak slowing of growth in Europe in 2012, increasing market share is increasingly important. However, internal devaluation to restore competitiveness takes time. Importantly, there are policy measures that can accelerate this process without increasing the indebtedness of the private sector. Mauro, Pisani-Ferry, and Wolff (2010) argue that unused structural funds could be spent on targeted wage subsidies in the tradable sector to promote creation of jobs in the export sector. Increased competition in goods and services markets to boost productivity and bring down prices in the non-traded sector would also contribute to improved competitiveness. More generally, policymakers could usefully focus on structural reforms that facilitate the re-allocation of the work force to the tradable sector. Similarly, in surplus countries, policymakers should not resist freely-set wage increa

1) A targeted euro-area-wide strategy centered around European investment should be envisaged. A natural area for common public expenditure where clear European spillovers and externalities exist. The ongoing energy crisis is such an area where an ambitious European strategy would be beneficial. Raising revenues at the European level -- for example by taxing the financial services industry -- could help leverage borrowing for a European energy network could be an efficient way of supporting the euro area economy. While it takes time to define such a programme and begin actual spending, it should be recognised that debt adjustment will take many years. Moreover, simply announcing such a strategy may give a boost to the euro area economy in the short term via positive expectation effects.

2) Over-indebtedness in the (non-financial) corporate sector and in the household sector puts severe strains on the banking system. Bad assets in the banking system should be recognised and dealt with promptly so that credit provision to growing sectors of the economy is not curtailed. Banks should be rigorously stress-tested to detect such bank balance sheet problems and re-capitalised if necessary. The current arrangement allows European funds (via the EFSF) to be loaned to countries for bank recapitalisation. Governments should request European funds where necessary rather than delay bank restructuring. EFSF loans for bank recapitalisation should be given at no extra charge, that is, at EFSF borrowing costs, so that the banking-sovereign feed-back loop that is contributing to financial fragility does not get aggravated. Better still, the rules of the EFSF should be changed to allow the EFSF to inject capital directly (not via loan to governments) into European banks in exchange for ordinary equity in the banks and increased supervisory powers at the euro area level.

3) Debt relief may be required in some cases if public and/or private debt levels cannot be managed by the debtors, creditors will have to accept losses. This is not the place to review the way such debt reduction can be achieved in a way that results in the lowest damage to the euro area as a whole and the individual countries. What is clear, however, is that if the euro area suffers a deep and prolonged recession in 2012 and 2013, debt relief for private and public creditors may be needed in some countries of the euro area.

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Appendix 1

Table 7: Finnish household indebtedness
(Billions of Finnish mk)

	Debt	Disposable income	Indebtedness ratio
1989	36.6	41.4	88.5
1990	38.5	44.6	86.4
1991	39.2	47.9	81.7
1992	37.7	49.0	77.0
1993	35.5	48.0	73.8
1994	34.0	46.2	73.7
1995	32.7	50.0	65.4
1996	31.6	50.2	63.0
1997	32.1	53.6	59.8

Source: Statistics Finland,