
Financial and real crisis in the Eurozone and vulnerable economies

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Abstract

The paper looks at the deep and the direct causes of the crisis in the Eurozone and considers what changes are necessary. It shows that, together with financial aspects, the Eurozone crisis stems from the difficulties of the real economy and the incompleteness of European institutions. The former include divergent real performances, unsustainable development paths of the Member States, and growing distributive disparities. The consequences of misconceived stabilisation policies magnified the effect of the above factors. The international crisis caused a shock that has had asymmetric effects within the Eurozone due to the divergent economic performances and the different institutions of the member countries. At the same time, European institutional incompleteness deprived member countries of effective policy-making and European policy management and support, thus converting the common currency into a problematic asset. Building on this framework, the paper critically analyses the institutional and economic reforms necessary to vitalise the process of European integration, and it stresses the urgent need to tackle the real and microeconomic causes of the crisis.

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1. Introduction

The standard account of the international crisis is that it started in the United States and was due to lax regulation that fostered excess credit, financial and real bubbles, and financial disequilibria. In spite of massive government support to financial institutions in trouble, the crisis soon spread to the real economy and engendered a “great contraction”.

Initially, the European Union seemed to be in a rather safe position, with the exception of macroeconomically unbalanced small economies (Greece, Hungary, Ireland), where the crisis had already been apparent in 2008. The Eurozone was considered unassailable, thanks to the virtues of integration, the Euro, and the features of continental capitalism. The latter include lower financial depth and integration, prudent financial regulation, and cautious behaviour by financial institutions, in particular banks.

Six years into the crisis the picture is dramatically different. The Eurozone is now the problem for the world economy. Its financial situation is shaken, the Euro is in trouble, and the future itself of European integration is at stake. European policy-makers are engaged in intense debate and trying to find solutions. Typically, policy-making concentrates on financial and monetary issues, with institutional implications. The success of financial and monetary stabilisation is seen as a necessary precondition for the revival of the real economy.

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It is of interest that the European Commission report on the first ten years of EMU stressed that disregarding non-fiscal dimensions such as competitiveness, credit booms and current-account deficits was a mistake (European Commission, 2008). However, financial issues have dominated debates and policy-making, and efforts have concentrated on the need to strengthen the financial situation and action of the Union and its member countries. Such critical issues as diverging productivity rates and levels within the Eurozone, the sudden reversal of capital flows between the north and the south of the Eurozone, or the divergence of real exchange rates and their consequences for the integration and sustainability of the Eurozone, are mostly confined to technical and academic debate with scant appearance in governments' concerns.

This paper contends that concentrating on financial issues is a one-sided approach that on its own cannot explain, let alone solve, Europe's troubles. Although it is true that the current financial distress of various EU member countries is an impediment to their growth, this is so only in view of the present incomplete institutional and governance architecture of the Union, and particularly the Eurozone. However, if one takes a broader, longer and deeper perspective, it appears that the present financial and monetary crisis of the Union is rooted in the real economy and the institutional architecture. In its turn, the incompleteness of the latter reflects the fundamental lack of trust among member countries, which they seek to overcome by means of financial discipline.

Moreover, concentrating on fiscal and monetary solutions to the crisis by means of restrictive policies is likely to be untenable in the medium-long run because of its depressive effects on the real economy, heavy social costs and political destabilisation, and long-term damage to the production system. Stabilisation policies magnify the impacts of neo-liberal policies implemented since the 1970s into increasing inequalities, decreasing mobility and opportunities. They polarize income and wealth distribution, thus destructuring the middle class and spreading poverty. These processes have negative consequences for domestic markets and prospects of economic growth.

Although some of the problems are common to the entire European Union, it is within the Eurozone that they are manifest in their full significance. Indeed, the common currency removes monetary policy from the competence of national governments, and the Stability Pact strongly limits their fiscal policies. These constraints on policy-making exacerbate the effects of external shocks, to the disadvantage of vulnerable economies.

According to the literature on economic vulnerability and resilience (Briguglio et al. 2009), economic vulnerability consists in the exposure of an economy to exogenous and usually external shocks, such as those arising from economic openness and export concentration in small countries. The opposite situation is that of economic resilience, which is the policy-induced ability of an economy to withstand or recover from the effects of such shocks. Although not exactly the same as the case identified in this literature, particularly as regards the causes of vulnerability, the case of weak economies within the Eurozone is similar in the effects. When hit by external shocks, these economies cannot freely use policy instruments to withstand or recover from the effects of such shocks; nor can they rely on collective support from Eurozone countries.

Within the Eurozone, no country can freely devise its own monetary policy. However, asymmetric shocks (such as the Euro's appreciation or the slump in world demand) hit some (vulnerable) economies, not strong and resilient ones. The difference can be explained in different ways according to the kind of shock. In the case of Eurozone countries, two factors are particularly important: first, macroeconomic and particularly financial disequilibrium, which shakes the confidence of financial markets in the solvency of those countries; and, second, microeconomic and systemic inefficiencies which lead to weak competitiveness.² In both cases, the fundamental causes of disequilibrium and inefficiency are likely to be internal. Yet these economies will be at the mercy of markets until the countries concerned can solve their structural problems, which is rather difficult without policy sovereignty or external support.

The next section describes the wider context from which the financial crisis stemmed. It briefly discusses the processes which favoured the increase of global imbalances and the onset of the crisis. Section 3 deals with the factors that make the Eurozone situation so troubled and explains why the Eurozone cannot work with the present institutional architecture when there are external shocks acting asymmetrically within it. Section 4 considers the traditional measures which could be or have been used to achieve financial stabilisation. The section shows that, although some of these options are useful, while others are unviable, they are anyway insufficient to deal with the composite and far-reaching nature of the crisis. Building on this framework, the fifth section explains why the present Eurozone institutional and organisational architecture is not viable. Section 6 concludes.

2. The great contraction

Perhaps the most important economic transformation of recent decades has been the boom of monetary and financial activities. The volume of currency transactions was 70 times the world trade of goods and services in 2008. It was 15 times higher than in 1990 (Schulmeister et al. 2008). Average trade elasticity to GDP was close to 2 during this period. However, there were marked differences among countries. In 2010 total bank assets amounted to more than 45 times government tax receipts in Ireland, more than 30 times in Cyprus and more than 25 times in Malta. In Spain, the Netherlands and France this share was around 15 times, and slightly less, around 12-13 times, in Portugal, Austria and Germany. The corresponding figure was less than 10 times in Greece and slightly above 7 times in Italy (Pisani-Ferry 2012).

The growing integration and financialization of the world economy have had two different outcomes for the real economy. They have increased demand,

² Microeconomic conditions comprise the features of existing enterprises and competition, including the level and increase of wages compared to labour productivity, and the requisite circumstances for starting and conducting a business. Important microeconomic circumstances are considered in the World Bank Doing Business database. These circumstances include the conditions for starting a business, dealing with construction permits, obtaining electricity, registering property, obtaining credit, protecting investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. Vulnerable Eurozone countries generally feature as weak in the database. Systemic conditions refer to the relations existing among different institutions in the economy. Unstable and populist governments contribute to systemic inefficiency as much as does, among other things, the lack of competition.

employment, output and consumption, together with financial institutional innovation and market deepening and expansion, also thanks to increased international economic linkages. However, they have also created incentives for financial bubbles and, through these, real bubbles. They have magnified the international transmission of shocks and increased the vulnerability of economies to them. In this situation and through decreasing demand by indebted and impoverished consumers, the reallocation of public resources to rescue the financial sector, decreased public expenditures and credit crunch, the financial crisis was inevitably transformed into a “great contraction” of the real economy (Rogoff 2011, Stiglitz 2010).

Although fiscal processes are important for explaining the world and European crises, financial instability and fiscal imbalances are also the outcomes of real and institutional problems. Thus the Eurozone troubles have roots in the world crisis, but they extend well beyond it and affect the institutional architecture itself of the Union and the Euro (Rosefielde and Razin 2012, Pisani-Ferry 2012).

Four processes contributed to the initial onset of the global financial and economic crisis in the United States and other Anglo-Saxon countries. First, highly developed economies encountered increasing difficulties in maintaining high investment rates and productivity growth, particularly compared to BRICs, and they progressively lost market shares in international trade, with the partial exception of Germany (Dullien 2013).

Second, deregulation and financial innovation based on the idea of efficient markets were implemented to counteract ailing competitiveness. These ended the post-war Bretton Woods compromise between labour and capital (Rodrik 2011) and created the premises for the largely unregulated unfolding of financial globalisation. This opened the way to large scale financial bubbles. The high mobility of financial resources required internationally coordinated macropolicies, which restricted the power of national policy-making.

Third, high mobility of critical resources and policies designed to attract them led to growing and sizeable distributive disparities (Atkinson et al. 2011; OECD, 2011). These shrank opportunities for domestic markets to expand by decreasing the spending capacity of the middle and lower classes, and they put governments under political and social pressure to find ways to support living standards.

Fourth, the above processes left national governments free to use primarily micropolicies to upgrade the competitiveness of their economies (e.g. by reforming corporate governance and domestic financial markets, by promoting competition and privatization, by restraining wages). The weakness of the supposed trickle-down effects in the economy and the adoption of similar policies in most countries undermined the competitive effects of policies and induced governments to soften credit, particularly that linked to house ownership (Rajan 2010; Kumhof and Ranci re 2010).³ Financial innovation in the form of derivative financial instruments was used to spread the risk. These instruments created the booming subprime mortgages market, which melted down when interest rates started to grow.

Housing bubbles were important in the United States, but not in all European countries. The housing bubble was a major driver of the crisis among Euro countries.

³ However, other authors maintain that there is no evidence of a general relationship between rising inequality and financial crisis through a credit boom. See e.g. Bordo and Meissner (2012).

It was so in Spain (where prices boomed approximately threefold in each of the two periods of 1985-1991 and 1996-2008) and, to a lesser extent, in France (where prices increased by 120% between 2000 and 2008), but not in other countries like Italy. In Germany there was no housing bubble (www.economist.com/node/21560599 on 18 August 2012).

These four processes – from slowing productivity, through deregulation and disparities, to soft policies and soft credit – generated a causation cycle in which each element reinforced the others. Financial troubles were thus embedded in real problems: the inability of the financially most developed and active countries, the United States and Great Britain in particular, to maintain traditional living standards without inflating the financial economy, and to run unsustainable current account or budget deficits.

The crisis that originated in the United States reached the Eurozone through various channels: financial and real effects, policy consequences and institutional linkages. Various European banks held US subprime debt in their portfolios, so that their financial solidity rapidly worsened. Also the contraction of the US economy had negative spillovers on the European economy. US policies were designed to bail out the financial sector, particularly banks, including investment banks and insurance companies, and to stimulate the real economy with strong expansionary policies, including lower interest rates and increased loans to commercial and investment banks. The modest effect of these measures convinced the administration to use more direct economic stimuli and interventions, including tax rebates for households and tax cuts for businesses; but it soon also used public expenditure on aid to states, education, unemployment benefits, public works, infrastructure projects and refinancing of mortgages. Important direct interventions included the takeover of Fannie Mae and Freddie Mac and the direct purchasing of high-risk, mortgage-based securities from US banks. However, the potentially positive effect of these measures for the European economy was diminished by the negative mood and worsening situation of European consumers and enterprises alike, and the negative attitude of European governments. Decreasing interest rates in the United States caused a weaker dollar and contributed to strengthen the euro, which added to the difficulties of vulnerable Eurozone countries.

Important effects ensued on the institutional side. Largely because of the US situation, rating agencies became much more prudent *vis-à-vis* private debtors and public debtors that were accumulating debts to rescue their economies. This created further difficulties especially for those heavily indebted countries whose sovereign debt was owned in large part by foreigners. Finally, important academic studies (e.g. by Reinhart and Rogoff) questioned the sustainability of high public debts and made international agencies and governments more prudent. All these effects contributed to putting the Eurozone in serious difficulties and revealed its weakness.

3. The Eurozone puzzle

During the last couple of decades the European economy has undergone a dramatic long-term downturn which followed the successful post-war years of catching-up with the US economy (Art et al. 2008, Maddison 1995). Worrisome signs of this downturn have been apparent in most European countries. They concern productivity and growth rates, market shares, unemployment rates, income

disparities, and innovativeness, albeit with important exceptions, particularly in Northern Europe. Since 2008 growing financial and monetary distress has accompanied these long-term real processes and led to substantially growing public debt.

The distress began in the periphery of the European Union, but it soon reached the Eurozone: urgent bailouts were required for Hungary and Latvia in 2008, Romania in 2009, Greece and Ireland in 2010, Romania again, Portugal and Cyprus in 2011. Then in 2012 also Spain needed support. Even a founding member – Italy – was in a critical situation in 2011, although a bailout was not necessary in this case. Global financial markets manifested their distrust of particular Eurozone countries. However, they showed increasing skepticism concerning the European institutional architecture itself, including the common monetary system and currency. This distrust culminated in the cases of Greece since 2009 and Cyprus since the end of 2011.

The distress started in the Eurozone periphery because these countries were more vulnerable. Their vulnerability was due in only minimal part to their small economic size and strong integration into international markets. Indeed, other small and open Eurozone economies, such as those of Luxembourg or Finland, did not suffer, and they have remained sound to this day. Vulnerable countries were faring badly in the real economy in the years before the crisis. All of them had unbalanced current accounts in both infra-EU and extra-EU accounts, low productivity and competitiveness, increasing labour costs and rapidly growing hourly earnings, higher inflation rates compared to Germany (Table 1), low R&D expenditures over GDP and low investment in human capital, high unemployment. Such an unsound situation in the real economy easily gives rise to unbalanced finances, particularly when coupled with weak or populist governments.

Table 1. Inflation rates spread in the Euro Area above German inflation (average annual percentage change, 1999-2010)

Euro Area	Ireland	Greece	Spain	France	Italy	Portugal
0.5	1.0	1.9	1.3	0.2	0.7	1.0

Source: based on ECB, Monthly Bulletin, January 2011

As a matter of fact, the financial situation of vulnerable countries was not particularly problematic and unbalanced compared to those of such strong countries as Germany or France. Public debt over GDP, one of the critical Maastricht parameters, was below 60 per cent in both Spain and Cyprus in 2009, while it was well above that threshold in both Germany and France. Similar observations hold for the budget deficit to GDP ratio, with Spain and Cyprus showing a performance more virtuous than the EU average and Italy soundly within the 3 per cent limit. The situation is not much different if one considers both the public and private finances. True, vulnerable countries were decreasing their investment and savings rates, while their consumption levels were high compared to their per capita income.

In what sense, then, are these countries vulnerable? There are two main causes of their vulnerability. First, the real economy of vulnerable countries is not

competitive: productivity is stagnating and growth rates are low or even negative.⁴ As a consequence, unemployment increases, public revenue decreases, and public expenditure grows. Under these conditions, automatic stabilisers work poorly (e.g. unemployment benefits may have to be reduced) and public finances are under pressure. This is a situation that hardly gives confidence to markets. Yet if the debt is held domestically by loyal citizens, as in Japan, there should be no serious reasons to worry. However, a substantial part of the public debt of vulnerable countries is held by foreigners, and in some countries foreigners also own important parts of their financial institutions. This was particularly the case of Greece, Italy and Portugal.

Under the pressure of international financial markets, national governments, the EU governance bodies, and international organisations alike have concentrated their stabilisation efforts in the financial domain, to the disregard and damage of the real economy. Yet most of the Eurozone countries under attack were financially sounder than others, including Great Britain and the United States, which did not suffer such a loss of confidence among investors (De Grauwe 2011a).⁵ There are three critical aspects to the Eurozone crisis: a) inter-country diverging performances of the real economy, b) growing distributive disparities, and c) economic and policy short-terminism.

First, there has been a lack of convergence at aggregate level within the Eurozone, although selected service sectors and manufacturing branches indicate evidence of convergence (Sondermann 2012). Absolute labour productivity levels and trends over the last decade exhibit remarkable differences to the disadvantage of vulnerable countries, although there have lately been signs of convergence (http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcod_e=tec00117&plugin=1).⁶ Since hourly wages have grown faster in vulnerable countries than in strong ones, unit labour costs continued to diverge until 2009

⁴ According to Eurostat, growth rates in the period 2005-2012, with the exception of a few Eastern member countries, were generally modest and the Eurozone (+6.7 per cent in the entire period) fared worse than the European Union (+8.0 per cent). Not all vulnerable countries had poor performances: Cyprus (+14.7 per cent) fared better than Germany (+11.6 per cent) and Finland (+10.0 per cent), and, together with Ireland (+10.2 per cent), better than France (+7.2 per cent). Also Spain's performance (+7.0 per cent) was slightly higher than the Eurozone average. However, the economies of three vulnerable countries shrank: Italy (-1.3 per cent), Portugal (-1.4 per cent), and Greece (-9.6 per cent) (<http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tec00115&language=en>).

⁵ The statement does not refer to Greece, whose public debt is presently above 150 percent of GDP. Spain is a partial exception: although its public finances were sound until the crisis and better than Germany's; its public finances are in deep trouble because of the government's need to rescue private banks. The case of Italy is different, since its public debt has been the highest in the EU compared to GDP for years. However, Italy's private finances continue to be solid and even the primary public deficit is sound.

⁶ Labour productivity in Italy was substantially higher than the EU average in 2000, but decreased to the EU average by 2010. Other vulnerable countries fared better. In Spain labour productivity decreased to the EU average by 2000, but it regained the original relative level well above the EU average by the end of the decade. Productivity in Greece was constantly some 20 percent below the EU average, and it worsened only with the onset of the economic crisis. Productivity in Germany and France was remarkably higher than in vulnerable countries, although decreasing compared to the EU average. Therefore, in the second half of the last decade Spain's productivity converged to Germany's and France's, while Italy's diverged.

(stats.oecd.org/#) and competitiveness diverged to the disadvantage of vulnerable countries (Table 1). Only during the crisis did competitiveness converge.

Stagnating productivity in the member country of a monetary union causes price inflation in that country compared to the others (Table 2). This effect corresponds to real exchange rate appreciation in the vulnerable country.⁷ Although the exchange rate cannot change, the consequences are similar and include a loss of competitiveness which worsens the country's position in international trade and the inflow of foreign direct investments. The need to finance high debts may increase interest rates (Statistical Data Warehouse) compared to financially sound countries once markets realise that no common umbrella exists to guarantee sovereign debt. The existence of an infra-union demonstration effect also contributes to inflationary differentials by inducing nominal wages in vulnerable countries to converge to the strongest countries' level (stats.oecd.org/#).

**Table 2. Harmonised competitiveness indicators for the total economy⁸
(based on unit labour costs indices, 2013 Q1, percentage change since 1998 Q4)**

Euro area	BE	DE	EE	IE	GR	ES	FR	IT	CY	LU	MT	NL	AT	PT	SI	SK	FI
-9.9	3.9	-18.8	46.1	-2.2	-4.4	-3.1	1.4	3.8	8.2	20.1	10.9	2.6	-6.7	1.1	0.2	69.7	1.1

Source: European Central Bank (http://www.ecb.europa.eu/stats/exchange/hci/html/hci_ulct_2013-01.en.html)

Strong countries take advantage of the weakening effect exerted by vulnerable countries on the exchange rate of the common currency. They also obtain additional capital inflow from riskier vulnerable countries thanks to their stronger reputation in the international financial market. Their interest rates remain lower, thus easing the financing of enterprises and public finances alike.⁹ These effects may be powerful incentives to implement reforms in vulnerable countries, but they may also transform the monetary union into a trap to their disadvantage.

The demonstration effect on the wages side and the constraints on public finances in vulnerable countries led to their inability to invest well before the

⁷ Real exchange rates based on unit labour costs in manufacturing in both Italy and Spain increased quite substantially since the beginning of the last decade according to the OECD (respectively 135.1 and 128.8 in 2010, setting 2001=100). At the same time, the leading countries of the Eurozone, particularly Germany, enjoyed decreasing real exchange rates (91.1), while in France it was slightly increasing (109.7). The average real exchange rate for the Eurozone was 121.0.

⁸ A positive change points to a decrease in cost competitiveness. The purpose of harmonised competitiveness indicators (HCIs) is to provide consistent and comparable measures of Euro area countries' price and cost competitiveness. HCIs are constructed using the same methodology and data sources that are used for the real effective exchange rates (EERs) of the Euro and are consistent with the Euro EERs. While the HCI of a specific country takes into account both intra and extra-Euro area trade (considering the 21 most important trade partners) the Euro EERs are based on extra-Euro area trade only. The HCIs are calculated on the basis of weighted averages of bilateral exchange rates vis-à-vis the currencies of the trading partners of each euro area country and are deflated by appropriate cost or price indices. <http://www.ecb.europa.eu/stats/exchange/hci/html/index.en.html>

⁹ According to the calculations of Nathan Sheets and Robert Sockin (2012) of Citigroup, the real exchange rate for Eurozone Germany has depreciated by 15-20 percent relative to the real exchange rate for the euro area as a whole compared to a hypothetical freely floating national currency. This weaker real exchange rate is providing a significant windfall for Germany's export sector, both outside the Eurozone and within it, since some 40 percent of German exports go to Eurozone countries.

international crisis started.¹⁰ This has trapped their economies in labour intensive branches (Memedovic, 2009; Yilmaz, 2008) where they suffer the disadvantage of converging wages and the strong currency (OECD, 2011, country notes; Eurostat, 2011). Exports in vulnerable countries suffer, and countries lose export quotas while unemployment increases and may remain high. According to the OECD database, Italy's international market share of goods and services was 4.07 per cent in 1999, but in 2008 it was 3.35 per cent. In the same years, Spain's share decreased slightly from 2.28 per cent to 2.14 per cent. Quite different was the performance of Germany, specialised in the sector of research-intensive goods (Eurostat, 2011): its market share remained virtually unchanged (8.73 and 8.72 per cent respectively).

Another effect of the loss of competitiveness in vulnerable countries consists of current account imbalances (Table 3), which contribute to foreign debt (Gros and Alcidi 2011, Reinhart and Rogoff 2011). Strong countries, and in particular Germany, registered current account surpluses in intra-EU trade (Table 4) and maintained balance of payments equilibrium by exporting capital to vulnerable countries (Table 5). This inflow of capital drove the sustained Irish and Spanish growth rates. Capital inflow was, however, invested mainly in non-tradable activities such as construction, and it contributed to creating real estate bubbles (Wolf, 2010). When vulnerable countries came under attack from the international financial market, the direction of capital flows was reversed, and vulnerable countries started to export sizeable amounts of capital to strong countries, and in particular to Germany.¹¹

¹⁰ This is not true for the entire period since 1997, when the final decision to adopt the Euro was taken. Indeed, gross fixed capital formation in Germany was particularly weak until 2005. During this period Italy's unimpressive performance was equal or superior to Germany's, while those of Spain and Greece were higher than Germany's, France's, and Italy's (OECD.Stat, Eurostat, 2011). The situation changed dramatically after 2006, when Germany's investment performance recovered, while France's continued to be remarkable. With the international crisis, gross fixed capital formation in Spain and Greece decreased dramatically and remained negative. Also Italy's performance was negative, although less than that of the other two vulnerable countries.

¹¹ According to the IMF (2012, p. 27), capital outflows from vulnerable to strong countries took place at a pace typically associated with currency crises, and they were considerable. In the 12 months to June 2012 Spain lost €296 billion (27 percent of 2011 GDP) and Italy €235 billion (15 percent of GDP). There were structural differences of capital flight in the two countries. In Italy a large share of outflows originated in foreign investors retreating from the country's bond markets. In Spain, the outflows were broader-based and a significant part were in corporate bonds.

Table 3. Current Account Balances (in percentage of GDP)

	France	Germany	Greece	Italy	Spain	Eurozone (17)
1997	2.6	-0.5	-4.4	2.8	-0.1	0.8
1998	2.6	-0.8	-3.2	1.6	-1.2	0.3
1999	3.2	-1.4	-4.2	0.7	-2.9	-0.6
2000	1.4	-1.8	-7.8	-0.5	-4.0	-1.5
2001	1.8	0.0	-7.2	-0.1	-4.0	-0.4
2002	1.3	2.0	-6.5	-0.8	-3.3	0.7
2003	0.7	1.9	-6.6	-1.3	-3.5	0.3
2004	0.5	4.6	-5.8	-0.9	-5.3	0.8
2005	-0.5	5.0	-7.6	-1.7	-7.4	0.1
2006	-0.6	6.2	-11.5	-2.6	-9.0	-0.2
2007	-1.0	7.5	-14.6	-2.4	-10.0	0.1
2008	-1.8	6.2	-15.0	-2.9	-9.6	-1.5
2009	-1.3	6.0	-11.3	-2.0	-4.8	-0.2
2010	-1.4	6.1	-10.2	-3.5	-4.5	0.0
2011	-1.8	6.2	-10.0	-3.1	-3.8	0.1
2012	-2.2	7.1	-2.5	-0.5	-1.1	1.3

Source: data extracted on 10 Dec 2013 09:36 UTC (GMT) from OECD.Stat

Table 4. Intra-EU 27 Trade Balance by Member States (intra- and extra- EU-27, bln. Euro)

	2003		2005		2010	
	<i>Intra</i>	<i>Extra</i>	<i>Intra</i>	<i>Extra</i>	<i>Intra</i>	<i>Extra</i>
France	-16.6	10.5	-37.2	4.5	-73.6	8.6
Germany	77.8	52.1	98.9	56.9	68.0	86.0
Greece	-15.4	-12.4	-16.9	-13.0	-14.3	-17.5
Italy	-1.5	3.1	-186.0	-9.2	-7.9	-22.1
Spain	-24.0	-22.4	-36.9	-40.4	-10.9	-41.0

Source: Eurostat (2011)

Table 5. Financial net worth (difference between the stock of financial assets and liabilities, total economy, current prices, Billions of Euros)

	France	Germany	Greece	Italy	Spain
1997	187.0	22.4	-8.3	7.6	-126.8
1998	215.7	-32.1	-24.3	-9.8	-167.4
1999	132.1	38.7	-35.0	-12.7	-187.5
2000	237.8	25.4	-46.9	-66.7	-199.3
2001	185.0	114.1	-60.8	-64.1	-233.5
2002	-34.6	-18.3	-87.7	-144.0	-280.1
2003	-37.9	-40.4	-109.3	-169.2	-338.3
2004	-87.1	36.1	-134.2	-184.0	-429.1
2005	-11.2	302.1	-152.6	-177.6	-512.2
2006	-53.4	17.0	-206.9	-286.1	-654.8
2007	-81.1	126.1	-248.4	-406.2	-828.6
2008	-233.8	465.7	-228.5	-423.9	-858.9
2009	-231.6	512.2	-258.4	-365.0	-961.2
2010	-260.8	521.0	-238.3	-348.1	-910.2
2011	-363.1	667.2	-184.7	-263.2	-937.4
2012	-424.0	815.4	-248.8	-372.3	-951.1

Source: data extracted on 10 Dec 2013 10:00 UTC (GMT) from OECD.Stat

The second critical aspect of Eurozone fragility is the deregulation of markets and policies favouring capital and highly specialised professionals and disfavoured labour (OECD 2011). The increase in capital share has been particularly significant in France, where it has doubled since the mid-1980s, and Germany, where the contribution of capital income to total income inequality has increased from 8% to 15.5% in the past decade. In vulnerable countries, increasing distributive disparities were meant to deliver price competitiveness (Balducci, Staffolani, 2002; Tronti, 2008), and they consisted more of decreasing wages, including those of qualified employees, than of increasing profits, or at least this has been the case until recently. With increasing interest rates, the only true winner could be rents.

Long-term effects of these processes in vulnerable countries include decreasing returns to investment in human capital (Banca d'Italia, 2011), which slows social mobility and fosters migration to stronger countries, in particular by young qualified people. These processes tend to shrink the middle class and create mounting social and political problems which may put the public budget under strain. According to Eurostat (2012), the risk of poverty rates before and after social transfers in the EU 27 increased respectively to 25.7% and 16.4% in 2010, while 8% of Europeans were severely materially deprived. According to the definition adopted for the Europe 2020 strategy, around 23% of Europeans were considered to be at risk of poverty or social exclusion in 2009 and 2010 (Eurostat, 2012).

Decreasing real incomes, in particular those of social groups with high propensities to domestic consumption, depresses the domestic market. Although incomes in vulnerable countries have certainly been inflated compared to productivity, their fall is nevertheless a major obstacle to growth and consequently macroeconomic equilibrium. In Greece, private consumption has been decreasing for

three consecutive years since the crisis started, while in Spain and Portugal the sharp decrease recorded in 2009 was followed by a moderate increase in 2010, which anyway did not restore consumption to the pre-crisis levels. In Italy, real incomes after tax have been decreasing since 2008. Consumption is usually more resilient to economic downturns than is income, and increases in consumption inequality occur at much slower rates than increases in income inequality. In fact, income shocks can be off-set through the use of savings and borrowing. However, if shocks translate into wealth effects and are considered to be lasting, the consequences on consumption tend to become permanent (Jappelli and Pistaferri 2009, Krueger and Perri 2011). Consumption in 2008 and 2009 decreased less than incomes, and in 2010 and 2011 it slightly increased. In 2012 the situation was the reverse.

Savings has been generally decreasing in vulnerable countries, while remaining stable in other countries. In Italy, a traditionally high savings country, and Spain, household net savings rates were decreasing before the crisis, and in Italy the drop continued also during the crisis. However, in Italy household wealth compared to disposable income remained high and indebtedness rather low even when compared with that of Germany. In Greece, the household net saving rate was negative for the entire decade, and in Portugal the rate decreased progressively to become negative at the beginning of the crisis. In Germany and France, net savings had remained remarkably stable since the mid-1990s (OECD.Stat).

4. Traditional policy options

The third critical aspect of the Eurozone comprises policy short-terminism and institutional conservatism. Although understandable, given the complexity of European history and the strength of national sentiments, the prevailing intent seems to be that of keeping inter-country distributive processes under control, to the disadvantage of the federalist perspective and the strategic development of Europe. The policies used or debated so far within the Eurozone with a view to overcoming the difficulties of vulnerable Eurozone countries can be divided into five groups.

First, most governments raised taxes in order to increase public revenues. However, this was mostly done without regard to the real consequences of tax increases and with the urgent goal of balancing budgets under the pressure of financial markets, the European Union orthodoxy, and the strong fear of countries that they might have to pay the cost of the vulnerable countries' instability. Eurozone experiences of rising taxes offer useful lessons. In a sustainable stabilisation policy, it is important that tax increases should hit activities with low effects on domestic demand and income, such as imported goods, position rents and short-term financial activities. Increasing the taxation on immobile activities (real estate) also offers important possibilities, but it may have negative consequences for the building industry and inflation. Other forms of tax increase (particularly on mobile resources such as labour and capital) have doubtful or plainly negative aggregate consequences, including inflation, lower demand, weaker incentives, and flight of resources. Fighting tax evasion and more in general the underground economy, furnishes a better and more effective alternative source of additional revenue for the state. Tax evasion is particularly widespread in vulnerable countries like Italy, Spain, Portugal, and Greece (Schneider and Buehn 2009). Fighting it and recovering substantial revenue for the public budget requires political will and technical ability,

which may entail reforms, upgrading of the public administration, and specialised police. Another important source of public revenue is the privatisation of state assets, but the fear of a privatisation glut makes governments prudent in using this instrument.

Decreasing public expenditure, possibly through careful spending reviews, is a second option for pursuing financial stabilisation. It has been attempted in vulnerable countries, but with mixed results. To have positive effects, cuts in public spending should hit activities with a low multiplier effect on the demand for domestic products, such as spending on imported or luxury goods or unproductive types of public expenditure. Expenditure cuts could curb inflation and interest rates, thus fostering competitiveness. However, this type of policy is likely to have negative effects on domestic demand and to increase unemployment.

A third option, though it has been rarely used except at sectoral level, would be to reduce taxes on incomes and the tax wedge on labour. The goal is to decrease wage costs and improve the price competitiveness of production. Other extensively used measures with doubtful stabilising consequences include reducing pension rights (either by diminishing replacement rates or postponing retirement age) and weakening welfare support without diminishing the employees' contribution to their financing. Negative effects include demand depression and displacement (because employees must use their income to finance pension plans and buy welfare services, they may have to reduce other types of consumption), and social tensions. The effect on labour incentives and social cooperation is apparently not positive, also because vulnerable countries couple it with authoritarian management of labour relations. Workplace innovation suffers as a consequence. Matters might be different if the move were linked to a general and socially shared plan for national revival and intergenerational fairness, but this is unlike in the present situation. Weakening the welfare system without reforming it causes serious long-term social problems, including decreasing social mobility. However, as stressed in supply-side economics, decreasing the tax wedge may reinforce the incentive to invest and supply labour. For the time being, vulnerable countries exhibit the opposite tendency.

Inflation is the fourth classic option for devaluating debt against national income, thus helping to solve public finance problems. However, this solution does not work for individual countries within a common currency area. It only works if it involves the entire currency area, which is unlikely, given the ECB mandate and the political commitment of various countries, particularly Germany, to price stability. In any case inflation is not a problem in the Eurozone for the time being.

A fifth often debated possibility is that of leaving the currency in order to regain full control over policies (Eichengreen 2007). This would enable the country to gain competitiveness through depreciation. In principle, this should not be possible in the Euro area, since the countries entered the Eurozone permanently and irreversibly, as stipulated by the Euro agreements. However, there is no doubt that a fundamental tenet of the European Union is the sovereignty of member countries. Even if politically possible, this situation would be economically unfeasible [Deo et al. 2011, USB 2012], since public debt and foreign debt are denominated in Euros, while the new national currency of vulnerable countries would rapidly weaken against the Euro. Moreover, the country's financial reputation would be damaged,

and financing public debt and investment would become even harder. This option entails true default, including freezing, rescheduling or consolidating the public debt.

In spite of the orthodox policy recipes prevailing in the European Commission and individual member countries, also under the pressure of strong countries, the ECB has tried to find a way out of the untenable situation with some ingenuity and determination (see Pisani Ferry and Wolff, 2012). The ECB intervened through the secondary market in May 2010, when it launched the Security Markets Programme (SMP) and purchased Greek and Portuguese bonds, in August 2011 when it purchased Italian and Spanish bonds for a total amount of about €200 billion, and in December 2011 when it launched the long-term refinancing operations (LTROs) providing massive liquidity under its financial stability mandate of Article 127 of the Treaty on the Functioning of the European Union. Finally, on 6 September 2012 the ECB's president Mario Draghi announced that the Bank was to launch a new programme, the Outright Monetary Transactions (OMTs), for unlimited ECB purchases of short- and medium-term sovereign bonds on the secondary market to hold interest rates on euro-zone sovereign bonds in check. The IMF's change of stance since 2011 certainly helped.

5. The Eurozone's untenable architecture

Lack of fiscal discipline was certainly an important feature of the first decade of the Euro (Schuknecht et al, 2011). Yet prevailing policy measures contributed to worsening the difficulties. The advantages of the Euro for convergence to financial stability were viewed over-optimistically, which favoured free-riding behaviour by some of the member countries and softened the commitment to real convergence. While the most debated cases include that of Greece and also Italy in 2011, the European Council decision of 25 November 2003 to suspend the excessive deficit procedure for France and Germany has been politically more important for its negative consequences on the credibility of the European fiscal framework. Germany and France breached the Stability and Growth Pact respectively four and three times from 2000 to 2007. Two of the most vulnerable countries, Ireland and Spain, were remarkably disciplined in containing their debt, and even Italy pursued overall virtuous fiscal policies after the Euro was introduced, albeit with swings.

The predominant stress on fiscal discipline is clearly expressed in the Maastricht Agreement, and even more so in the Stability and Growth Pact (SGP). The 2012 "fiscal compact" provides for constitutional accelerated convergence to balanced budgets as a precondition for strongly coordinated fiscal policies (FC 2012).

The EU's concern for financial discipline is economically justified, though one-sided. As a member of a monetary union, a country issues debt in a currency over which it has no full control and is consequently more vulnerable to the loss of confidence of financial markets (De Grauwe 2011b; Kopf 2011). Such distrust may lead from a liquidity crisis to a solvency crisis in a self-reinforcing vicious circle. Interest rates on government bonds increase compared with those of strong countries, and the vulnerable country finds it increasingly difficult to use automatic budget stabilisers. However, there are two reasons for caution in placing exclusive emphasis on financial discipline through tough automatic rules.

First, a country's compliance with the rules of the Stability and Growth Pact is not a reliable predictor of its present difficulties (Pisani-Ferry 2012). Hence the widely held view that tough enforcement of fiscal rules would have prevented the crisis is not supported by unambiguous evidence. Second, various Eurozone countries such as Spain, whose public finances are in a sounder position than non-Euro countries like the UK, the USA or Japan, meet severe government borrowing costs (De Grauwe 2011b).¹² A primary reason for this higher cost of financing is the inability of Eurozone countries freely to manage monetary policies. However, another reason is the unilateral focus on financial stability which the EU imposes and the restrictive financial policies that are used to this end. The fiscal situation alone seems to offer a weak explanation for the tensions in the euro-area government bond markets.

The concept of the impossible trinity of the Euro pillars highlights the impossibility of abiding with three basic institutions of the Eurozone. It includes: strict no-monetary financing (Art. 123 of the EU treaty), bank-sovereign interdependence, and the absence of co-responsibility for public debt ('no bail-out clause', Art. 125 of the EU treaty) (Pisani-Ferry 2012). No-monetary financing means that governments must rely on financial discipline. Failing to do so, and in the absence of co-responsibility for public debt (e.g. a common guarantee through the ECB), incurs the risk of sovereign default. Bank-sovereign interdependence includes the combination of governments' responsibility for supervising, and if necessary rescuing, the largely national banking systems and the existence of large stocks of undiversified national public debt securities that these same banks have held even after the Euro was introduced and cross-border financing increased.¹³

Given the impossible trinity and the limited mandate of the ECB, adverse shocks to sovereign solvency tend to interact with adverse shocks to bank solvency and increase the vulnerability of Eurozone countries. In these conditions, budgetary consolidation must be part of the solution. However, relying exclusively on this strategy is unlikely to guarantee achievement of the goal of risk-free solvency. It works to the detriment of growth, and is anyway economically, socially and politically very costly and hardly sustainable.

To guarantee stability, pursue sustainable growth, and safeguard cohesion, the EU – and the Eurozone in particular – also need to undertake institutional reform. There are three options for such reform: a) a broader European Central Bank (ECB) mandate, b) creation of a Eurozone banking federation, and c) fiscal union with common bonds. Although technically and politically debated, and undergoing difficult and partial implementation, these options encounter major obstacles in national sovereignty.

¹² According to IMF (2011) simulations, Greece and Ireland have to implement adjustments exceeding 10 percent of GDP to reach a 60% debt/GDP ratio by 2030. The adjustment is 5 to 10 percent of GDP in France, Spain and Portugal. Only in Italy, Belgium and Germany is the adjustment between 2 and 4 percent. For comparison, the adjustment is close to 14 percent in Japan and around 10 percent in the USA and UK.

¹³ Domestic banks held about one-fourth of the bonds issued by the state in Germany, Italy, Spain and Portugal in 2007. The proportion was less, but still notable, in France, the Netherlands and Greece. Only in Ireland were banks negligible holders of government securities. Public debt held by domestic banks increased after 2007 as banks replaced non-residents as holders of public debt in vulnerable countries, notably in Greece, Portugal and Ireland, and to a lesser extent in Spain and Italy.

First, the ECB mandate could be broadened to include the role of lender of last resort to sovereigns.¹⁴ Several proposals have been put forward to extend the ECB mandate without converting it into a full-fledged central bank: e.g. lend for a limited period to a sovereign at a rate above the risk-free rate but below the rate that the sovereign has to pay in the market (Pisani-Ferry 2012); or provide a credit line to a public entity, such as the European Financial Stability Facility (EFSF), that would then intervene in the market in order to leverage its capital and give it enough firepower (Gros and Mayer 2011). Some steps have been taken in this direction with the launch of the Security Markets Programme, but without significant results. Indeed, changing the ECB's mandate is apparently the least feasible option because it encounters several legal and political difficulties: the ECB does not have an explicit mandate for it, and obtaining it would require the EU member countries' unanimous agreement; any move in this direction would involve a critical inter-country distributional dimension; the ECB is actually part of the European system of central banks and lacks the right governance to take the relevant decisions that the role would require and the right instruments to enforce conditions.

Second, regulatory reform and building a Eurozone banking federation could brake the vicious circle of bank crisis and sovereign crisis. Eichengreen and Wyplosz (1998), building on the well-known fact that monetary unions increase the risk of sovereign default, showed, a good decade before the crisis, that a sovereign crisis in the Euro area would spill over into the banking system and the other sovereigns. They concluded that the correct policy response would be "to tighten supervision and inspection of European banks rather than placing fiscal authorities in a straightjacket". Financial market regulation has moved in this direction only very recently, and without much success so far. This reform intended to limit the exposure of financial operators to a single borrower requires far-reaching transformation of the financial systems, and it is in danger of distributing the risk more widely within the Eurozone. This risk is particularly important in view of the outstanding amount of sovereign debt compared to GDP.¹⁵

A second, promising step towards stabilisation of the bank crisis–sovereign crisis vicious circle is the creation of the European Banking Authority and the European Systemic Risk Board. These are significant steps in the direction of a banking federation that would ultimately transfer the supervision of large banks and the responsibility for rescuing them to European level. The full reform would require creating fiscal capacity at European level, a move that national governments are resisting. Such capacity would require assigning the responsibility for setting up national deposit insurance schemes to the European Financial Stability Facility (Véron, 2011), and creating a permanent European Deposit Insurance Corporation financed by banks with public guarantee.

The third option consists of establishing a fiscal union among Eurozone countries. The idea, originally addressed to financing the EU budget, was part of the 1970 Werner report on creating a European monetary union and the Delors report of

¹⁴ Nuti (2013) has proposed that the ECB could use the present value of its seigniorage on the Euro, which is estimated at €3.3 trillion, to retire a sizeable part the Eurozone's members debt in the same proportions in which they hold ECB shares.

¹⁵ The cumulative public debt of Italy, France, Germany, and Spain amounts approximately to 50 percent of Eurozone GDP (Pisani-Ferry 2012).

1989 on the economic and monetary union. After spring 2011, the idea of a fiscal union took the form of a tight common fiscal framework and a mutual guarantee of (part of) the public debt issued in the form of Eurobonds.¹⁶ Eurobonds would benefit from joint guarantee by all governments, would obtain favourable borrowing conditions, and would credibly engage countries in deepening the monetary union. These benefits would be obtained in exchange for the member states' concession of part of their fiscal sovereignty to the Union, i.e. renouncing their freedom to issue debt at will, with ex-post sanctions if common rules are breached, and accepting ex-ante approval of their budgets. However, the implementation of Eurobonds would require significant reform of the Treaty and a new institutional framework in order to replace no-responsibility and ex-post control and introduce the principle of solidarity and ex-ante approval. Such reform would need political integration, also in order to accommodate the uneven distribution of the potential benefits, which would accrue primarily to vulnerable countries, at least in the short run.

6. Conclusions

Something has clearly gone wrong with the Euro (Nutti 2013). However, a return to the pre-Euro situation would be impossible, economically too costly, and politically and socially too dangerous. Europe has to find a way to proceed with financial stabilisation, revival of growth, and the building of a cohesive Europe. Fiscal stabilisation and reform of the European institutions constitute two sides of the virtuous triangle that the Eurozone needs in order to resolve its troubles. Revival of the real economy is the third side. This requires the reform of economic institutions, greater productivity, and demand and investment management.

To date, the importance of the real economy and its role in pursuing financial stability have been largely disregarded. Sustainable balanced budgets are the outcome of sustainable growth, since the debt/GDP ratio decreases, with balanced budgets, if the real interest rate paid on the debt is lower than the GDP growth rate. This is a result difficult to achieve with low or negative growth. Concentrating only on financial discipline, while postponing reforms and growth to a time when financial stabilisation has been implemented, is simply a chimera and runs the risk of piece-wise fiscal and monetary policies with depressive or even disruptive outcomes (Favero, 2002; Gaffeo et al, 2007; Melitz, 2002).

The timing mismatch between financial stabilisation, on the one hand, and policies concerning institutions and the real economy on the other, may be a problem, because financial measures have received priority under the pressure of financial markets and may block the way to institutional and real policies. Moreover, countries which reformed their economies before the crisis and which have been pursuing rigorous fiscal policies are afraid of becoming victims of free-riding vulnerable countries. Yet we have seen that this is not the case of the most vulnerable countries.

¹⁶ Different variants of Eurobonds have been proposed, including the Blue Bond/Red Bond proposal of Delpa and von Weizsäcker (2010), the Redemption bonds of the German Council of Economic Experts (2011), the Eurobills of Hellwig and Philippon (2011), the EuroUnionBond of Prodi and Quadrio Curzio (2011), and the stability bonds of the European Commission (2011). See also Claessens et al. (2012).

Growth promoting measures are complex in the present situation. They are difficult to implement and slow in becoming effective. Vulnerable countries at present face difficult conditions on the demand side, largely because of the effect of stabilisation measures. Yet these countries have serious demerits that can perhaps be best represented by their weak position in the World Bank Doing Business database, which includes some of the most important microeconomic conditions of the economy. Pursuing and implementing the important and much needed reforms of these conditions requires organisational effort, political determination, social support, and financial resources. Yet they are essential for restoring the competitiveness of vulnerable countries deprived of the traditional depreciation and soft finance instruments. It is difficult to see how such reforms could be implemented amid the present rigidity of financial stabilisation.

The critical importance of the real economy for rescue of the Eurozone requires a longer time horizon for stability programmes and their coordination with reforms and growth policies. There are two main reasons for adopting a longer perspective and a more complex approach. First, countries entered the Eurozone with remarkable differences in macroeconomic and microeconomic features and performances, and with notable institutional differences (e.g. of labour markets and welfare systems, but also industrial structure and size structure of enterprises). Since then, they have also recorded divergent real performance. Second, in a unified monetary area, divergent real performance leads to appreciation of the real exchange rate for vulnerable countries. In these circumstances, the Euro threatens to become a liability that hampers the implementation of economic reforms and growth policies.

Timing mismatch may be economically, socially, and politically dangerous, since it may lead vulnerable countries - and strong countries alike through commercial and financial links - into a permanent low activity equilibrium. This would provoke new tensions within the Eurozone.

The growing awareness of the need for institutional reforms in order to deepen the integration is an important step forward, but it falls short of what is necessary. There is a dramatic need for a comprehensive strategy of Eurozone stability, institutional consolidation, and economic recovery and development that goes to the roots of the troubles, and places the necessary short-term stabilisation measures within the long-term perspective of institutional development and economic growth.

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