

A Keynesian Recovery Policy for the European Union

RICCARDO FIORENTINI* & GUIDO MONTANI**

The European Council's decision in February 2013 to cut the EU budget to 1% of GDP was a grave error, worsening the European economic recession and tacitly admitting that a European recovery policy is impossible. In this paper the authors show that with an annual EU budget of only 1.19% of GDP, a recovery plan of 2% of GDP is possible, without deficit spending. The twofold aim of this exercise is to show that within the present legislative framework European parties and leaders can put forward an effective economic policy to overcome recession and that European fiscal imbalance is one of the major causes of the crisis of the European misgovernment. A more effective policy can be fostered with a limited federal debt.

IS THE EU BUDGET A TOOL FOR EUROPEAN POLICY?

After four years of recession, growing unemployment and a continuous fall in aggregate demand, the European Council (2013) moved to reduce the EU budget to 1% of annual GDP in the Multiannual Financial Framework (MFF) 2014-20. We hold that despite being small in absolute terms, this cut in European expenditure – a pro-cycle policy – is, in effect, an act of economic recklessness dashing all hope of a European recovery.

There are two contrasting positions on the current public debate on the future of the EU economy. The first proposes an austerity policy of country by country fiscal consolidation in the belief that this will lead to growth in future (when?); the second supports a more relaxed policy, i.e., ending or at least postponing the most severe austerity measures – though without any major EU reform. This paper will attempt to show that both positions are incorrect, geared as they are to specific national recovery, while ignoring the role of the supranational EU budget in view of long-term European prosperity.

* University of Verona, Italy, *E-mail: riccardo.fiorentini@univr.it*

** University of Pavia, Italy, *E-mail: gmontani@eco.unipv.it*

The aim of this paper is not to single out the causes of the EMU crisis. In a previous paper, (Montani, 2013) we showed that the origin of the EMU crisis was the imperfect construction, in Maastricht, of the EMU, set up without fiscal union and a federal government. The paper demonstrated that the aim of monetary union is to remove political risk – exchange rates and sovereign debt default – from internal financial asset transactions, as in the USA during its first 150 years. In 2010, at the onset of the Greek crisis, the European Commission had neither sufficient financial resources to intervene nor legal means, because the Lisbon Treaty forbids the bailing out of national governments. Moreover, the German government seriously considered the possibility of Greece leaving the EMU. International financial markets quickly understood that national sovereign debt in Europe did not carry the same risk; the European sovereign debt crisis rapidly became a banking crisis.¹ Among the institutional reforms considered in the paper were an increase in the EU budget, to fund more effective growth and employment policies, and the creation of federal bonds to finance European investments. In the present paper, we go into the details of an expansionary policy designed to overcome European economic recession.

The President of the European Council, Herman Van Rompuy, in his report *Towards a Genuine Economic and Monetary Union* (5 December 2012) says that the EMU requires a “fiscal capacity” in order to provide “an insurance-type mechanism between euro-area countries to buffer large country-specific economic shocks.” This “fiscal solidarity exercised over economic cycles” will reduce the costs of macroeconomic adjustments. In light of this affirmation, we present an alternative EU recovery policy based on a EU budget of 1.19% of GDP. We chose this modest increment to show that the European Council and the European Parliament could have taken a different decision, avoiding to exceed the present ceiling of 1.23% of annual appropriations for payments, and still remaining in compliance with the present legislative framework. However, our aim is more general in that we also want to show that a recovery policy managed at the federal EU level is both possible and necessary in order to overcome the flaws and deflationary bias of the current country-by-country austerity approach.

Our proposal is based not only on an insurance-type mechanism, but also on a federal EU recovery policy, which is possible if the size of the EU budget is appropriate. When setting up the EMU, the Maastricht treaty did not build in a companion European fiscal federal union, leaving aside the problem of the size of the EU budget. Recently, this

topic has re-emerged for discussion, e.g., in an IMF paper (Allard *et al.*, 2013) and particularly in a study by the French treasury staff, which clearly states that the stabilization of the euro-zone economy is a public good, which European institutions must provide (Trésor-éco, 2013, p. 4). Our purpose here is to clarify this point, though we are obliged to discuss the size of the budget of the EU-27 and not just of the euro-zone, since the MFF 2014-20 is the indispensable framework for our calculation. However, since all calculations are expressed as a percentage of GDP, the conclusions are valid for the euro-zone as well.

Although our calculations are based on a balanced budget – as at present the EU budget must be – our recovery proposal may be called “Keynesian” in that it is possible, by exploiting private debt financing, such as project bond initiatives, to finance expansionary investments. Of course, a more effective counter-cycle policy could be envisaged if the constraints of the balanced EU budget could be overcome. But this would require a substantial reform of the Lisbon Treaty, much like that proposed by the Spinelli Group in the European Parliament in *A Fundamental Law of the European Union* (Spinelli Group, Bertelsman Stiftung, 2013).

The paper is organized as follows: Section 2 shows that the promulgation of national austerity policies derives from an inversion of the causes and effects of the current economic problems in Europe; Section 3 surveys the debate on austerity policies and the size of the Keynesian multiplier, showing that fiscal consolidation based mainly on the prescription of the “national house in order” cannot work if a supranational economic policy is not set up; Section 4 explores the notion of supranational aggregate demand; Section 5 proposes an investment policy based on project bonds; Section 6 considers measures to improve social policy and consumption in the EU; Section 7 presents a set of policies rendered possible with an alternative MFF 2014-20 at 1,19% of EU GDP; additionally, allowing for a deficit-running EU budget, some further policies are pointed out.

FROM FINANCIAL CRISIS TO DEBT CRISIS

Good economic policy aimed at solving economic problems should start from a proper analysis of their causes. However, the current EU policy response to economic crisis raises the question as to whether European governments and EU institutions have failed to apply this basic rule (Zezza, 2012).

Following the Greek public budget crisis in 2010, official debate in Europe has focused exclusively on austerity as the means to solve

excessive public debt and expenditure problems, as if mismanagement of public budgets in some southern and peripheral EU countries was the cause of all European economic woes. This view mistakenly inverts causes and effects and leads to wrong policy prescriptions. In fact, government deficits and debt did not bring about the financial crisis. Debt and deficits became a problem because of the financial crisis, which originated in an ill-regulated private financial sector (Blyth, 2013; De Grauwe, 2013). Eurostat data show that in the 2003-2007 period, the EU deficit/GDP ratio was on a downward path with a generalized movement toward balanced public finances (-0.9% in 2007). In the same period, the EU average debt/GDP ratio slightly exceeded 60%, but in 2007, just prior to the crisis, it reached a satisfactory 59%. It is also worth noting that before 2008 Spain was running a government surplus, Ireland was comfortably meeting the Maastricht parameters, and Italy was running a primary surplus which, in a few years, enabled it to cut its deficit/GDP ratio to 1.6% (2007). In the so-called GIIPS group, only Portugal and Greece had visible problems in public finances prior to the crisis.

After 2007, public finance parameters rapidly deteriorated across the EU area, primarily as a consequence of the fall in GDP due to the international financial crisis, which caused a precipitous decline in international trade in 2009. Figure 1 shows real GDP growth rates in

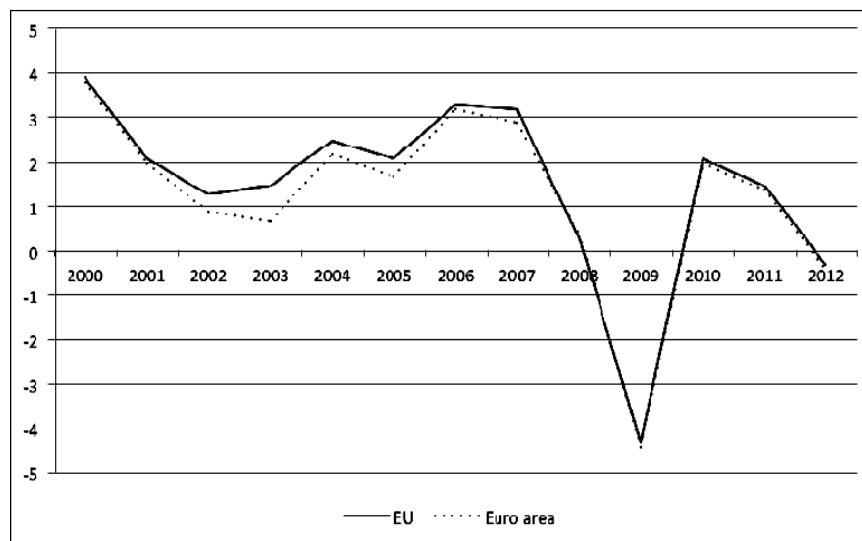


Figure 1: Real GDP growth rates in the EU and euro area 2000-2012

Source: Eurostat

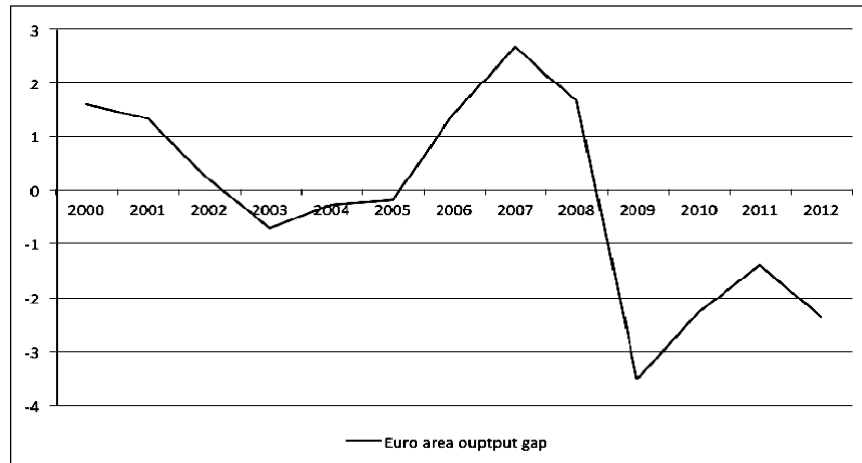


Figure 2: Output gap in the EU 2000-2012

Source: Eurostat

the EU and euro area. A sharp reversal of the earlier positive trend is evident after 2007. Pre and post-crisis data show that after 2008 the average growth rate has been negative, while up till 2007 it was at 2%. The recovery in 2010 was also short lived and in 2012 the entire EU area fell back into recession. These data suggest that the EU has not recovered output lost during the crisis. And now deflation and stagnation are threatening the EU economy. A look at output gap statistics makes this point even clearer. Output gap measures the percentage difference between potential output, i.e. the output which can be produced by utilizing the productive resources of an economy at their "normal" non-inflationary level, and actual output. Figure 2 shows that from 2000 to 2007, the output gap was cyclical, but on average it had a positive deviation of 0.75. After 2008, however, the output gap turned negative, with an average value of -1.58. So, over the last four years the EU economy has been working steadily below full capacity, and did so even when growth rates were positive, as in 2010 and 2011. This is a clear sign of domestic demand shortage in the EU economy. Table 1 supports this conclusion. The EU has not been able to recoup the dramatic drop in domestic demand that occurred in 2009 and at the end of 2012, the accumulated percentage loss in domestic demand compared to 2007 was -3.1%. In terms of individual components, investment (gross fixed-capital formation) made up the largest negative contribution, followed by private consumption. A

slowdown in government consumption is also evident. However, with the exception of 2009, net exports have been making a positive contribution to EU aggregate demand. Reduced domestic demand, rather than a supply shortage, is at work.

Table 1
EU Real Aggregate Demand Components – Yearly Percentage Change
2007-2012

	2007	2008	2009	2010	2011	2012
Domestic demand	3,3	0,2	-4,2	1,6	0,6	-1,3
Private consumption	2,2	0,3	-1,8	1,0	0,1	
Government consumption	0,9	2,2	1,4	0,0	-1,4	
Gross fixed capital formation	6,3	-1,2	-13,0	0,2	1,4	-2,2
Net export	-0,3	0,5	-0,1	1,0	2,3	2,1
Exports	5,6	1,6	-11,7	10,7	6,4	2,2
Imports	5,9	1,1	-11,6	9,7	4,1	0,1

Source: Eurostat, GDP and main components – volumes (nama_gdp_k tables)

Lack of demand has also exacerbated the problem of unemployment. From 2005 to 2007 unemployment was at 16 million. In the five years after 2007, unemployment rose by 10 million, reaching 26 million unemployed at the end of 2012. In the same period, the EU aggregate unemployment rate rose from 7.2% to 11.8%. For people aged under 25 the situation is even worse: youth unemployment had been slowly decreasing before the crisis, but then jumped from 15.7% in 2007 to 21.4% in 2011 – their share of total unemployment thus increasing to above 9% (Eurostat). The drop in GDP explains why, in 2009, the deficit/GDP ratio in the EU stood at a record negative value of 6.9% and the debt/GDP ratio started to rise – to above 90% in 2012.

It is well known that during recessions GDP losses make both deficit and debt/GDP ratios rise. Automatic stabilizers, i.e. unemployment benefits cause public expenditure to expand, while falling GDP lowers tax revenues so that government budgets automatically deteriorate. In addition, during the recent crisis, bailouts of the private banking system by several governments adversely affected public budgets, further worsening the Maastricht fiscal ratios. Ireland is a striking example: the massive bailout of the entire banking sector by the Irish government caused the deficit/GDP ratio to move from parity in 2007 to a huge deficit (-30.9%) in 2009! Consequently, the debt/GDP ratio skyrocketed in four years from 25.1% in 2007 to an unprecedented 106.4% in 2011. A private debt and banking crisis had become a sovereign debt crisis.

The reasons for the accumulation of excessive private debt in Southern European countries and Ireland can be traced to the fact that in a monetary union comprising countries with different rates of inflation, the uniform nominal interest rate set by the Central Bank generates real interest rates which are too low in some country and too high in others. In countries where the inflation rate is higher than the average, low real interest rates stimulate investment, aggregate demand and imports as in Southern and peripheral EU countries who have developed a persistent trade deficit with Germany, the country that financed the boom in demand (particularly for housing) via capital outflows (Dettmann *et al.*, 2012). This process was arrested and reversed when the Greek crisis caused investors to lose confidence in the solvency of GIIPS countries. At that point, the interdependence between the fiscal position of governments and the balance sheets of private banks, the main holders of government bonds, transformed the crisis of a country counting for just 3% of EU GDP into a dramatic self-fulfilling liquidity crisis threatening the stability of the entire Eurozone. As mentioned in Section 1, international investors suddenly realized that they could no longer attach the same risk profile to sovereign debt issued by different EMU countries and a “flight to quality” in favour of German bonds began. As a consequence, the interest spread between GIIPS and German sovereign bonds quickly widened, forcing the public finance of weaker countries onto an almost unsustainable path² until September 2012, when Mario Draghi announced the Outright Monetary Transaction program (OMT), making it clear that the ECB was not going to allow the EMU to break down.

The existence of a fiscal and banking union and the rapid intervention of a lender of last resort would have stopped the development of such a liquidity crisis but, as we know, in the EU a federal fiscal union does not exist and the recently approved project for banking union, establishing supranational surveillance (Single Resolution Mechanism) came too late. Furthermore, the ECB still cannot act as a true lender of last resort (like the Fed) because of its institutional mandate, which prohibits the direct financing of government deficits. The strong opposition of German members on the ECB Board to any even limited intervention in the secondary EMU sovereign debt market also explains why, in 2011, early action taken against speculators by the ECB was not very effective and casts doubts on the ability of the OMT program to prevent future systemic financial crisis in the Eurozone (De Grauwe, 2013).

Fear of the effects of moral hazard on public finance explains the resistance of Germany and other ‘core’ EU countries and officials to

any extension of the ECB mandate. The argument is that the monetary bail-out of a deficit country by EMU institutions may weaken the commitment of governments to “sound” public finance. This may be an issue, but in the case of the recent crisis, in our opinion, the constraints of the non-monetary financing of sovereign debt, the interdependence between sovereign debt and bank balance sheets as well as lack of fiscal union, were the problem, and not moral hazard, giving rise to the fragility of the Eurozone (Pisani-Ferry, 2012).

DEBT CRISIS, FISCAL MULTIPLIER AND SELF-DEFEATING AUSTERITY

Ignoring the real causes of the sovereign debt crisis, European authorities reacted with a “country by country” policy of fiscal consolidation (national austerity) along the lines of the Fiscal Compact: government budgets were to be balanced and any country exceeding a 60% debt/GDP ratio would have to bring it down at a steady rate of 5% per year. This pro-cyclical strategy, which neglects the role in the crisis of insufficient aggregate demand is based on two main assumptions. The first is that fiscal consolidation has negligible short-run effects on GDP and that it positively affects consumer and entrepreneurial confidence fostering demand and investments, as in the “expansionary fiscal contraction” hypothesis. The second assumption is that a “house in order” logic perfectly fits the current EU situation. If each country would correctly implement “structural reform” and keep its public finances under control, then the EU as a whole would benefit, making supranational economic policies unnecessary. In our view, both assumptions are dubious and it is not surprising that persistent economic stagnation in the European economy has given rise to a spirited debate on austerity. Academic journals, newspapers, magazines and websites have hosted several articles by leading economists, including Nobel winners such as Krugman and Stiglitz, but here we focus on the academic aspect of the austerity debate.

Amongst those favouring austerity as a means of achieving economic recovery are supporters of the expansionary fiscal contraction view, e.g. Alesina and Ardagna (2010, 2012) Alesina and Giavazzi (2012), Giavazzi and Pagano (1996). They argue that fiscal consolidation (mainly through expenditure cuts) and liberal “structural” reforms aimed at improving competitiveness are necessary to foster economic growth in weaker European countries. In a well-known paper, Reinhart and Rogoff (2010) also suggested that debt/GDP ratios above 90%

hamper average growth rates, making policies designed to reduce debt ratios a “sine qua non” condition for achieving sound economic growth.

In standard Keynesian theory, restrictive fiscal policies will always have a negative impact on GDP because any fiscal restriction will cut aggregate demand and therefore output. Only a policy mix including monetary expansion leading to sufficiently low real interest rates can counteract the negative impact of fiscal austerity. The “expansionary fiscal contraction” argument, on the other hand, relies on completely different theoretical arguments – confidence channel and Ricardian equivalence. In this case, rational agents know that today’s government expenditure cuts imply lower taxes tomorrow. The expectation of future higher disposable income, in turn, increases consumption offsetting government expenditure cuts so that aggregate demand remains constant. Furthermore, the expectation of tax cuts and lower interest rates should increase entrepreneurial confidence in a future “pro-business” environment, fostering private investment (the “crowding in” effect of fiscal restraint). The bottom line is that fiscal consolidation is either “neutral” or “positive” in relation to GDP.

The assumption of agents’ full rationality and the empirical validity of the Ricardian equivalence hypothesis are highly debatable (Ricciuti, 2003); and recently, on the basis of a review of the effects of fiscal consolidation in Denmark, Ireland, Finland and Sweden, Perotti (2011), a former proponent of “expansionary fiscal contraction”, raises doubts about the actual role of restrictive fiscal policies on episodes of GDP growth. In fact, an export boom led by currency depreciation, along with wage moderation, played a major role in allowing these countries to grow. In the case of EMU, member countries cannot exploit the exchange rate depreciation channel and, under austerity provisions, real depreciation on the domestic front is the only way to improve competitiveness. Unfortunately, domestic real depreciation in the absence of exchange rate flexibility means a cut in real wages, which further depresses aggregate demand. It is also not clear where exports from troubled EMU countries should go. Since the introduction of the euro, intra-EMU trade imbalances have grown, with Germany developing a large trade surplus *vis-a-vis* Southern-Europe (Dettmann *et al.*, 2012; Mayer *et al.*, 2012). On average, since 2006 Germany has been running current account surpluses above 6% of GDP (IMF World Economic Outlook Database) and so, in November 2013, the EU Commission called for a review of Germany’s excessive surplus position. The internal markets of EU members are highly integrated and therefore a surge in German domestic demand would help reduce

trade deficit in the GIIPS countries. However, the German government have refused to implement domestic expansionary policies and therefore simultaneous real depreciation in several European countries competing in the same international market is likely to end up in a zero-sum game, where no one is able to significantly increase exports. Only a coordinated expansionary policy managed at the EU level might change this game plan.

As regards the link between debt/GDP level and growth rate, Herndon, Ash and Pollin (2013) showed that the quantitative conclusion of Reinhart and Rogoff (2010) is wrong, due to the omission of available data and spreadsheet calculus errors. Using the same Reinhart and Rogoff data set, they found that public debt had a much weaker impact on GDP.

Another convincing argument against fiscal austerity in times of economic crisis and stagnation is that austerity is a pro-cyclical policy, which is bound to be self-defeating (Calcagno, 2012; Seidman, 2012, Tamborini, 2012). The adoption of fiscal consolidation plans (“shock therapy”) in countries in the midst of economic recession is bound to quickly become self-defeating, particularly when the political target is framed in terms of debt and deficit/GDP ratios and when the adoption of such plans simultaneously occurs in highly-integrated economies such as the EU. Any fiscal consolidation plan simultaneously reduces both the numerator and the denominator of the deficit/GDP ratio and the outcome may actually widen, rather than reduce the ratio, calling for yet another round of fiscal consolidation and so on. Two more effects are at work here to worsen the situation: “coordination failure” effects or negative international repercussions and sustainability effects. When fiscal restraint is simultaneously adopted in integrated economies, recessive stimuli are transmitted from country to country. It is worth noting that according to Eurostat data, in 2009, government expenditure decreased in eight countries, most of them quite small (Bulgaria, Estonia, Ireland, Latvia, Lithuania, Malta and Poland and the UK). In the subsequent year, sixteen EU countries reduced their government expenditure, and in 2011 just six out of twenty-seven countries managed to increase government expenditure. Amongst the major EU economies, Germany was the only one to hike public expenditure, albeit to a small degree (0.5%). These data clearly point to the rapid dissemination of simultaneous recessive fiscal impulses in the EU. The country by country “house in order” policy cannot work because it leads to simultaneous restrictive fiscal policies in countries belonging to a highly integrated area.

On the other hand, investors in international financial markets may decide that a drastic effort to reduce government deficits is unsustainable if the impact of that policy on GDP is overly recessive. Paradoxically, in this case interest-rate spreads rise rather than fall, making the goal of fiscal consolidation impossible and also increasing the likelihood of sovereign debt default (Tamborini, 2012). The experience of Greece is emblematic. Greece was having budgetary problems well before the start of the international financial crisis. When the crisis hit the weak Greek economy, the government was forced to ask for help. The response of the EU and IMF was to impose severe fiscal policy restrictions in exchange for financial subsidies. So far, this “austerity” recipe has proven to be a failure. The Greek government has not been able to reach annual targets in terms of deficit/GDP ratio, the debt/GDP ratio has risen sharply and Greece has been in deep recession since 2008, with an average negative yearly growth rate of -4.3%.

The disappointing macroeconomic results of austerity have also revived debate on the actual size of the fiscal multiplier. The entire set of theoretical assumptions in the “expansionary fiscal contraction” view is not actually necessary to justify the usefulness of countries in the EU simultaneously implementing fiscal consolidation programmes. More pragmatically, what really matters is that the fiscal multiplier be, in fact, very small. In this case, the long run benefits of balanced government budgets and low debt should outweigh the small short run negative effects of fiscal restriction. By relying on earlier studies (Aiyagari et al, 1992; Baxter and King, 1993; Ramey and Shapiro, 1998), supporters of austerity policies usually assume that the fiscal multiplier is less than 1 (typically around 0.5) or close to zero, so that the negative impact of restrictive fiscal policy on GDP is relatively small. Unfortunately, recent empirical literature on fiscal multipliers contradicts this (Auerbach and Gorodnichenko, 2012; Barrell *et al.*, 2012; Batini *et al.*, 2012; Blanchard and Leigh, 2013; Cristiano *et al.*, 2011; IMF, 2012). The main findings on the fiscal multiplier can be summarized as follows:

1. the value of the fiscal multiplier differs from country to country and with economic conditions;
2. in “normal” times, when the economy is working around full capacity, the fiscal multiplier is smaller than one and often very close to zero;
3. In periods of recession and stagnation, when the interest rate has bottomed out the fiscal multiplier is greater than one, sometimes even above 2.

Statement 3 describes a liquidity trap wherein fiscal policy exerts the maximum effect on output. In a liquidity trap, the interest rate cannot further decrease so monetary policy cannot offset the negative impact of a restrictive fiscal policy. An expansionary fiscal policy does not crowd out private investments.

In an interesting paper, Coenen *et al.* (2012) tried to estimate the fiscal multiplier for the EU as a whole, rather than focusing on single country multipliers, as is typical in the literature. They use seven different structural models to compute and compare fiscal multipliers in the USA and the EU with and without an accommodating monetary policy. In the case of no monetary accommodation, their first year instantaneous government consumption multiplier ranges between 0.7 and 1 for the US and between 0.8-0.9 for the EU. In the case of an accommodating monetary policy, the multiplier increases to 1.55 (US) and 1.52 (EU). They also estimate the government investment multiplier as 1.59 in the US and 1.48 in the EU. As these findings indicate, in a period such as the current one, fiscal policy would exert strong effects on economic activity and GDP.

The implications of recent empirical and theoretical findings about the size of the fiscal multiplier on the effects of austerity policies are quite clear and the IMF itself has recognized that the economic forecasts on the consequences of fiscal consolidation plans in Europe had been too optimistic and based on overly low estimates of the fiscal multiplier (Guajardo, Leigh and Pescatori, 2011; IMF, 2012; Blanchard and Leigh, 2013).

In conclusion, our discussion suggests that austerity policies and the “house in order” approach are a unilateral response to the problems of the European economy. We stress that the “coordination failure” aspect of the “country by country” approach is part of the problem and that only a supranational approach can overcome it. Moreover, an abandonment of austerity in favour of national Keynesian policies would also be insufficient, in so much as attempts to implement expansionary policy by national governments can work only if they are coordinated at the European level. The time has come, therefore, to clearly move in this direction and in the following sections we show that a few feasible steps may be taken even within the current institutional setting of the EU.

SUPRANATIONAL AGGREGATE DEMAND

From the Lisbon Strategy onward, the employment and stabilization policy of the European Commission has boiled down to nothing more

than a set of recommendations to national governments to reform their labour markets. The tacit assumption is that European aggregate demand is given, or more exactly, it lies beyond the power of the Commission to affect any change.

But consider an opposing view – firstly, the investment function. As Keynes writes in the *General Theory*, “the state of confidence, as they term it, is a matter to which practical men always pay the closest and most anxious attention. ... There are not two separate factors affecting the rate of investment, namely, the schedule of the marginal efficiency of capital and the state of confidence. The state of confidence is relevant because it is one of the major factors determining the former, which is the same thing as the investment demand-schedule” (Keynes, 1973: 148-9). The framework of the inducement to invest is usually considered the horizon of the national economy. Today an accurate analysis of the state of confidence would recognize a distinction between national and international states of confidence. For the European Union, this distinction is crucial: the state of confidence of national businesses is a function of what investors can do in the national economy, in the EU and in the global market. Here the political factor comes into play: confidence levels have political aspects. Consider the state of confidence of US businesses since the end of WWII; the USA has been both an economy of continental size and the leading political power of the Western hemisphere. Consequently international economic stability has long depended on confidence in US monetary, commercial and military strength. It should be clear that the uncertainty factors faced by American and European businesses are quite different: factors include the capability of the US federal government to react to an international crisis. American businesses have much stronger inducements to invest than their European counterparts.

A second observation concerns the Keynesian multiplier. Typically, when a proposal for a European investment plan is put forward, some object that the EU budget is too small to support a recovery plan. This is inaccurate. The European economy is more than the arithmetic sum of national economies. It comprises several national economies plus a supranational government, whose power is not used to the fullest. Consider the Keynesian multiplier: $k = 1/(s + m)$, where s is the propensity to save and m is the propensity to import. If we assume provisionally that the EU economy is closed and that s is the same in every member state, a national government must consider that the value of m (i.e. the propensity to import commodities and services from other member states) in its multiplier is positive. If one national

government finances an expansionary budget, it cannot expect the other 26 governments to do the same. In theory, perfect coordination amongst national governments is tantamount to an expense financed by the European government. But some public expenditure in national investment plans (such as Galileo or the European supergrid of renewable energy; see Section 5) cannot be taken into account, as they are public European goods beyond the reach of national budgets: any national investment plan must take external diseconomies and leakages into account. On the contrary, a European investment plan (amounting to the same total of national expenditures) provides public European goods, which no national government can provide, and yields spillovers into national economies. European public investment has a multiplier of $k = 1/s$ because it would impact all European national economies and kick start some national public investment programmes – of interest to national governments only as part of a pan-European plan (such as hooking up to the European supergrid). Therefore, if the European investment plan concerns European public goods, the impact of the expense is greater, perhaps markedly greater, than the sum of national expenses.

Of course, Europe is not a closed economy, but open to international trade and the movement of international capital. Any policy to spur aggregate demand should therefore take into account that 15% of EU GDP is imported (the US economy has more or less the same percentage of foreign trade). Hence, a European investment plan can have a sizeable impact on European income and employment. Moreover, if it were possible in the future to coordinate the European recovery plan with American recovery and that of other countries, the real impact on growth would increase.

After investment, the second constituent part of aggregate demand is consumption. Consumption is a function of disposable income. Here we should note only that the present European economic crisis – exacerbated by austerity policies – has brought with it a serious drop in income and high rates of unemployment and poverty. The tax burden has shifted from capital to labour, due partly to indirect tax increases and to the fact that since 1999, labour productivity has increased faster than average wages (ILO, 2013: 48). As a consequence, labour's share in national income is reduced (ILO, 2013: 41-49), real demand is weak and recovery is difficult. "Weak demand is not the result of a lack of competitiveness brought on by onerous labour regulation or excessive business taxes. Businesses will not invest unless they are confident that there will be demand for whatever it is they produce" (Tilford,

2012: 3). This comment suffices to show that the problem cannot be tackled by instituting quick reforms only; it requires a new approach to taxation, which should become a EU concern. In short, the structure of the national welfare state, within which a modern employment and wage policy is worked out, should be reconsidered (see Section 6).

Before concluding this section, two points should be clarified. The first is the relationship between the short and long run. In 1923, Keynes said that “in the long run we are all dead,” though Chapter XII of the *General Theory* is devoted to long-run expectations, as investment theory cannot be built on the short-term. Below we take the European Commission’s “Europe 2020” plan as the framework for proposing a policy of supranational investment. The Commission Plan is of course founded on the long term, because Europe faces challenges that require coherent policy measures over decades. Even now we are living in the long run. Launching a judicious plan of public and private investment without considering long term horizons is unthinkable. But this is not a rejection of short term and anti-cyclical policies. A government can always choose to advance or postpone a given investment project in response to unexpected events.

The second point concerns the disputed question of deficit spending. It is certainly true that after the breakdown of the Bretton Woods system many national governments misused Keynesianism for electoral reasons, causing an upsurge in national debt. In the aftermath of a sovereign debt crisis, fiscal consolidation is necessary. But consolidation does not mean permanent austerity. Fostering aggregate demand does not necessarily require a deficit spending policy. The core of Keynesianism is not deficit spending. After WWII, the broad support of national governments in the USA, Europe and Japan for Keynesian policies was based on the consensus that a policy should be able to bring together the interests of capital and labour. In democratic capitalist countries, Keynesian policies for growth and employment worked well during the Bretton Woods era. In the wake of this century’s worldwide financial crisis, it is essential and possible to introduce policies bringing together the interests not only of capital and labour, but also of public and private finance in order to spur sustainable development within a supranational framework. This paper makes some proposals, which would open the way for the European Commission (or, rather, the future European federal government) to raise money in private financial markets so as to finance its “Europe 2020” plan, preferably without deficit spending.

AN INVESTMENT POLICY FOR RECOVERY AND SUSTAINABLE DEVELOPMENT

European recovery could be brought about by an external stimulus such as growth in international trade. Or it could occur because one or more national governments are able to reverse the trend. In recent decades sluggish growth – fast in some countries, stagnant in others – has been a European hallmark. Here, we propose a short-run European recovery policy as a first step toward sustainable development.

The first problem a European federal government would have to face is the depressed state of confidence of its business community, social partners and citizens. To improve this bleak view, the federal government would have to propose a bold recovery plan, whose size and novel contents would show that the European economy can compete on a level playing field with other leading world economies. The European Union would have to declare its will to become a global player by, for example, taking a single seat at the IMF. The confidence of “practical men”, as Keynes says, has a political aspect.

European political will and a European economic plan are both lacking today; but “Europe 2020” (EC, 2010) can be taken as a useful starting point. The main targets of “Europe 2020” are: 75% of the population aged 20-64 should be employed (69% in 2010); 3% of EU GDP should be invested in R&D (under 2% in 2010); “20/20/20” climate/energy targets should be met; the share of early school leavers should be under 10%; at least 40% of the younger generation should achieve tertiary education; 20 million fewer people should be at risk of poverty (80 million in 2010). In order to achieve these targets, seven flagship initiatives are planned.

We will not discuss the entire “Europe 2020” plan, but will point out some shortcomings and suggest some alternatives. Declaring the European Council as “the focal point” for implementing the proposed strategy is the plan’s main shortcoming. Once again, the error of the “open method of coordination” adopted for the Lisbon strategy has reared its ugly head. This method, which allows “free rider” countries to do as they please, dooms the plan to failure. A certain degree of coordination between national economic policies in the European Union is necessary, owing to the size of national budgets compared to the EU budget. But the European Commission should try to play its role fully as a “catalyst” of national economies: without a firm coordinator, coordination fails.

The coordination problem may be highlighted by looking at the “Connecting Europe Facility” (CEF) – a crucial component of the

“Europe 2020” plan included in the MFF 2014-2020. The CEF sets out a policy framework for investment in three sectors: transport, energy and telecommunications – essential to complete the single market. Moreover, investments in key infrastructures can boost Europe’s competitiveness and sustainable development. The Commission says: “the crisis has shown that infrastructures are crucial for Europe’s economic future.” (EC, 2011a: 1).

What is the cost of the original CEF project? The energy sector (electricity highways, gas transportation, smart grids, cross-border carbon dioxide networks) requires an investment of one trillion euro by 2020. The transport sector is hampered by missing links and bottlenecks, while the use of more efficient services in multimodal combination must be encouraged. Cost is estimated at over 1.5 trillion euro for 2010-2030. For telecommunications networks, the removal of digital bottlenecks is a key objective. The estimated cost is 270 billion euro, 50 billion from private sources. Therefore the total cost of the CEF will reach 2.72 trillion euro if the 2030 transport sector horizon is maintained, or 2 trillion by 2020.

The CEF project is crucial for European recovery, reversing a long-running trend of decreasing public investment. An EIB study notes: “Total governments investment as a ratio to GDP fell from almost 5% in the 1970s to less than 2.5% at the turn of the century” (Wagenvoort *et al.*, 2010: 27) and investments have continued to decline post-crisis. The relationship between public investment in infrastructure and growth is another important factor. As noted in a study sponsored by members of the European Parliament, there is “a strong correlation between the declining government investment ratios and declining rates of economic growth during the last three decades. The eurozone has now become a low-growth zone, no doubt caused in a significant way by the decision of its member governments to cut back on public investment” (Haug *et al.*, 2011: 60).

Now let’s face the problem of the size of the recovery plan. Any effective recovery plan must administer a positive shock to the confidence level of European public opinion: its size must demonstrate the political will of the federal government to reverse the declining trend and to provide a long term policy for sustainable development. Moreover, the plan’s magnitude should be adequate to fill the demand gap left by the crisis, which we estimate at 3.1% of EU GDP. Achieving this goal does not, however, necessarily mean investing this amount. Two related effects should be considered. The first is the Keynesian income multiplier, which according to the estimates reported, should

currently be one or greater than one. Secondly, as stated earlier, an investment in European public goods has a greater multiplier effect than do national multipliers; additionally, monetary policy in Europe today provides more liquidity than the business demand for credit, so that a crowding-out effect, caused by increased interest rates, has to be ruled out. Finally, we can rely on a positive crowding-in effect, namely that public investment may induce private investment. According to one study: “the likelihood of the crowding-in effects of productive public investments is higher in countries with a more stable macro environment” (Romp and de Haan, 2007: 27-8). It is not possible here to provide an econometric evaluation of the European crowding-in effect because all research to date has been devoted to national economies and not to the European economy as an integrated market with European public investments (Afonso and St. Aubyn, 2008).

Some further observations may be made. The recovery plan should comprise both the CEF investment and investment in research and innovation for the long term challenges Europe is facing: e.g., projects such as *Copernicus* (Global Monitoring for Environment and Security), a joint satellite system, or research on graphene a new multipurpose material are supported by the European Commission in order to push the European economy to the technological frontier. Similarly, intensively-funded public research in the USA, in some cases dating from WWII, fostered a cultural environment that led private entrepreneurs to come up with new information technologies and digital communication systems. Today, Schumpeter’s entrepreneur will need more than a sound credit system and a competitive market, a solid public system of innovative research is also necessary to sow the seeds for private growth. Our finding is, therefore, that the Horizon 2020 plan should allocate 90 billion, and not the 70 billion proposed by the Council (see Appendix). Funding scientific research and new technologies is the best way “to make Europe the most competitive and dynamic knowledge-based economy in the world” as set forth in the Lisbon Strategy.

One objection may be immediately raised in light of the above: How is a European recovery plan of this scope possible with the EU budget at only 1% of GDP? The easy answer had usually been the illusory coordination of individual national plans with the Commission acting as advisor. We suggest an alternative. The bulk of financing should come from the European budget, with none or only a minor share coming from national contributions, so that the Commission can fully act as a catalyst for national investment plans. Suppose the

Commission asks national governments to finance 0.5% of EU GDP with national government contributions – for investment plans of national interest – and the Commission finances the plan with 1.5% of GDP from Europe’s own resources. This is possible if innovative financial instruments made available by Public Private Partnership (PPP) are used cleverly (EC, 2011b). Of these financial instruments, project bonds are probably the most interesting and are especially suited to finance the CEF investment project, which has a private and public dimension. The investments are profitable only in the very long run (20-30 years) and risky, especially in the first phase of their life. Private companies would not, therefore, easily attract finance in the credit market at an acceptable interest rate. Moreover, the European bond market is unaccustomed to financing infrastructure projects. Nevertheless, some institutional investors – pension funds and insurance companies – need long term assets to match their long term liabilities. Thus, European infrastructure could be financed with project bonds, as long as they are considered safe and profitable. Project bonds “are issued neither by the European Union nor by Member States governments. They are private debt, issued by the project company. The Europe 2020 Project Bond instrument would enhance the credit standing of private entities that need to raise private funds for infrastructure projects they promote. By addressing capital market investors, the Project Bonds Initiative opens up a further avenue for project sponsors to attract funds. The EU budget contribution will be capped *ex ante*” (EC, 2011c: 5). Here is an example of how the financial mechanism works: the Commission provides a certain amount of money from the EU budget to cover the risk to the EIB, while the EIB covers the remaining risk, which should be no higher than 20% of the investment. The multiplier effect would be around 15-20. The aim of this mechanism is to upgrade private investment, whose 80% share is considered senior in case of default. EU institutional guarantees would permit the company raise funds in the capital market at a lower interest rate than typical bank loan rates.

In theory, project bonds could finance the recovery plan: in effect 10% of the present EU budget could finance 1.5% of GDP for infrastructure investments. However, this simple calculation is not practicable. As noted in a study (Dhéret *et al.*, 2012: 8-10), project bonds: “are not the silver bullet and are not necessarily suitable for all sectors and every type of project. Galileo is a case in point. The EU originally planned for a consortium of companies. But ... the Commission had to admit that a PPP was not the best solution for this project, given that

the high level of technological risk was liable to produce significant cost overruns Therefore, the programme is now entirely owned, sponsored and funded by the EU." Accordingly, the European plan should include not only the CEF, research and innovation projects, but also social initiatives to boost consumption and employment in the short run. The financial effort of the EU will be accepted and supported by its citizens if it produces more jobs rapidly.

MORE SOLIDARITY FOR A SUPRANATIONAL COMMUNITY OF CITIZENS

The European Union budget is often thought of as a supplementary fund for national budgets rather than a means to provide public goods to citizens, and during European elections future European policies and taxation receive scant attention. Nonetheless, the Commission has attempted to foster policies in favour of citizens' rights and welfare. A glance at the EU website leaves the viewer amazed by the variety of policies for social and territorial cohesion and for citizens' rights. These initiatives were made possible thanks to the Lisbon Treaty and the Charter of Fundamental Rights (CFR). The Preamble of the Charter reads: "the Union is founded on the indivisible, universal values of human dignity, freedom, equality and solidarity; it is based on the principles of democracy and the rule of law."

Greater solidarity between states and among citizens in the EU would be welcome. This is not a plea for more trans-national monetary transfers. The question of a transfer union was hotly debated during the sovereign debt crisis and is now enshrined in institutions and rules, while comprehensive reform for the creation of a fiscal union is under way. This reform could lead to a new model of fiscal federalism (Montani, 2013). Here we consider policies which can increase both the solidarity and the purchasing power of the European citizens.

The degree of solidarity within a supranational community of citizens is different from the degree of solidarity within a nation state. In Europe, the rudimentary institutions of the modern welfare state were created in the nineteenth century. Today they underpin a specifically European identity. The welfare state guarantees basic services to citizens – health care, pensions, education – by seeking to mitigate differences based on wealth, gender or culture. The inevitable costs are covered by national taxation: it is a system that ensures solidarity among citizens within the same nation. This degree of solidarity is not found amongst citizens of different nations, as the debate during the sovereign debt crisis made plain. Here, we argue

that a European umbrella – based on European public goods – protecting national welfare states, is both necessary and feasible.

An overarching safeguard is required for at least two reasons. Firstly, globalization places the very survival of the national welfare state in Europe at risk. The main threat is the erosion of the fiscal base through the mobility of international capital. Secondly, the concept of wealth itself is changing. In the past century the idea of social progress corresponded roughly to stronger welfare institutions; social progress today, however, has evolved into a quality concept, which is no longer measured by a single quantitative index (GNP), but should also include qualitative markers. A Report (Stiglitz *et al.*, 2009: 14) on social progress notes: “Increasing ‘output’ is more a matter of an increase in the quality of goods produced and consumed than in the quantity.” European wellbeing has a multicultural and multinational aspect, which can be better administered at the European level.

We propose adjusting allocations in the MFF 2014-20 under two headings. The first heading is the European Globalisation Adjustment Fund (EGF) created in 2006 to provide support to workers made redundant as a result of trade liberalization. The aim of the EGF is to reintegrate workers into the labour market providing services such as job-search assistance, career guidance, outplacement assistance, tailor-made training and the promotion of entrepreneurship. But the EGF does not finance passive social protection measures, such as pensions, disability or unemployment benefits, which are the responsibility of member states. The EGF adds the solidarity of the EU to the support provided by member states at national, regional and local levels.

Funding shortages have been a major problem for the EGF. In 2011, in the midst of the crisis, with 25 million unemployed, • 77.5 million was paid to 16,870 redundant workers targeted for assistance. The average aid per worker was • 4,597 (EC, 2012a). We propose utilising the legal framework of the EGF, transforming it into a European Employment Stabilisation Fund (EESF), in order to deal with emergencies that individual EU member states are not able to handle through their economic stability mechanisms. The EESF would provide aid to redundant workers more automatically and more generally than the present EGF. The macroeconomic function of stabilisation should not be confused with the distribution function: if the displaced worker finds a new job the Fund can be refinanced. It is a temporary transfer union. The macroeconomic function of stabilizing the economy should be centralized at the European level because of externalities. “In an open economy, some proportion of the net local government

expenditure will flow through into higher net imports, so the benefit of such expenditure will partly benefit non-residents, whereas the local government will in general have to impose the higher future taxes (to service the higher debt) solely on residents. The consequence is likely to be that governments in small, open economies are likely to feel incapable of undertaking as much stabilization as would be optimal if all externalities were to be internalized" (Goodhart and Smith, 1993: 423).

Within this theoretical framework, and considering that the 2008-2012 economic crisis caused about 5 million job losses, the new EESF could require • 90 billion for the MFF 2014-20, based on average aid of • 6,000 for 5 million people for 3 years, assuming that the unemployment emergency ends within three years. The EESF should provide European solidarity in cases of economic downturn for extraordinary short term unemployment.

The second framework heading to change is the Economic, social and territorial cohesion policy. The European Commission allocation of • 336 billion was reduced by the European Council to • 325.1 billion; we propose an increase to • 369 billion. This allocation finances the European Social Fund (ESF), the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the Youth Employment Initiative and Aid for the most deprived. All these funds are crucial for fostering employment, new jobs and new investment. The Commission says: "cohesion policy is an important expression of solidarity with the poorer and weakest regions of the EU, but is more than that." In light of the recent crisis, unemployment and persistently high rates of poverty call for effective EU action. It is essential "to accompany growth enhancing investments in infrastructure, regional competitiveness and business development with measures related to labour market policy, education, training, social inclusion, adaptability of workers, enterprises and entrepreneurs and administration capacity." (EC, 2011e: 11).

An increase in funding is justified for four reasons. The first is that the • 2.5 billion in aid to the deprived is woefully inadequate in the wake of the crisis. At the time of the Commission's proposal, there were 80 million people at risk of poverty; in 2012 the total had risen to 120 million. The second reason is that the Youth Employment Initiative – • 6 billion allocated within MFF – is likely to be insufficient. According to the 2013 Annual growth survey, EU youth unemployment stands at 5.52 million – in a depressed economy the allocated funds will not suffice to create millions of jobs. The third reason is to strengthen

territorial cohesion, essential for environmental, cultural and social initiatives. For instance, poor air quality and other environmental problems often result from inadequate local administration. Innovative technologies for a resource-efficient economy are often a source of new jobs. Local communities are also crucial for the expansion of social services and improvement of the quality of life. There is a rising demand for personalised care and professional social services. The size and rapid growth of these sectors (double the overall employment rate) suggest they will remain a key driver in providing jobs in the years to come. Local communities also play an important role in contending with social exclusion and poverty, often aided by volunteers. “Some 100 million EU citizens make a positive contribution to their community offering their time, talent and money too. Volunteering empowers individuals and helps create stronger communities, providing services to the excluded. It also fosters new skills, civic responsibility and enhanced employability” (EC, 2011f: 28). The European Commission should support these volunteers through the creation of a civilian service, especially for young people. The fourth and last reason is the urgent need for a minimum wage, as requested by the European Parliament. Apart from Italy and Greece, a minimum wage has been established in every state of the Union, albeit often without coordination and at a very low level. A European legal framework could represent a strong bulwark against the widening gap between rich and poor, caused by globalization and the financial crisis. A minimum wage pushes up pay for workers at the bottom and reduces inequality. Moreover, a minimum wage should be accompanied by a more inclusive EU policy. The Union should effectively “ensure a decent existence for all those who lack sufficient resources” (CFR, 34, 3). Comprehensive reform aiming at a society based on citizen’s rights would create more jobs and solidarity among Europe’s citizens.

THE EU FISCAL GAP AND THE EU BUDGET

Before looking at the EU budget as an instrument of economic policy, we ought to examine its place in the European Union system of public finance. Indeed, the European Union runs a very peculiar system of multilevel finance. If we compare the EU fiscal system with that of other multilevel systems, the uniqueness of the EU becomes clear: in all federal states the lion’s share of financial revenues is raised by the federal government – the exact opposite occurs in the EU, where the nearly all financial revenues are raised by national governments. In the jargon of fiscal federalism this abnormality is called Vertical Fiscal

Imbalances (VFI). And since 85% of EU budget revenues derive from national governments, the EU finds itself unable to provide adequate services and public goods (as mandated by the Treaty) to European citizens. European VFI is negative. This imbalance has crucial political consequences: the subordination of EU budget management and budget policies to the will of national governments, and hence, the subordination of the European interest to national interests.

Any measurement of negative VFI in the EU would require an in-depth study. Here we observe that there is a dual imbalance – expenses and revenues. The MacDougall Report (1977) stated that the size of the EU budget should be 2-2.5% of GDP in a pre-federal phase, excluding European defence expenditure. A subsequent Report (1993), sponsored by the European Commission, stated that the size of the EU budget should be at least 2% of GDP. Therefore, our provisional conclusion is that the negative VFI of the EU is at least 1% of GDP. The EU should double its budget to provide more public goods and services to its citizens because too many unproductive and inefficient expenses are located within national budgets. The VFI for expenses is of course a consequence of the lack of European revenues; this despite the fact that the European Parliament has often demanded genuine European resources.

If our European recovery policy plan of 2% of GDP is feasible, 0.5% should come from national expenses. The remaining 1.5% of GDP should be financed by the EU budget, provided that our alternative MFF is taken into account (see Appendix). For our purposes, we set the yearly average MFF budget at 137.1 billion: 1% of GDP at 2011 prices. Broadly, the alternative proposal includes two headings: public investment and social expenditure. The first heading – CEF investment – is the most important, due to the project-bond multiplier of 15-20. In effect, with 8.57 billion to dispose of annually for the CEF in the EU budget, investments of 171.4 billion can be financed, i.e. 1.25% of GDP, if the multiplier is 20. A multiplier of only 16-17 would finance an investment plan of a little more than 1% of GDP. Expenditure for Horizon 2020, GMES and Galileo should also be added. The remainder can be financed under the heading of social expenses, i.e. the Economic, social and territorial cohesion funds and the Employment Stabilisation Fund, whose 3-year total is 90 billion (0.66% of annual GDP). If needed, the entire European Employment Stabilisation Fund, functioning as a buffer, can advance some finances, grouping its outlay in one or two years.

These calculations must obviously ignore the political and administrative difficulties involved in changing the MFF and the

inevitable time required for the experimental phase of project bonds (EIB 2012). A serious fiscal reform of European public finance for a new legislative framework, like the one suggested by the Spinelli Group, would take years. Therefore, in the transition phase, a federal bond issue of at least 1-2% of GDP might be necessary. According to the French Treasury (Trésor-éco, 2013: 8), if financed with its own resources, a budget of 2% of EU GDP could take on 20% of the stabilization efforts of national budgets. And, if the power to issue federal bonds is granted, the budget can also stimulate substantive demand, especially new investments.

There is, however, a drawback in our EESF proposal. The proposal is based on a rule of thumb: a given amount of euro to short run unemployed people. That said, a precise calculation is provided by Bénassy-Quéré (2013: 14). According to her calculations based on a budget of 2% of GDP: “relying on automatic stabilization would lead to limited stabilization of asymmetric shocks within the euro area. The only way the euro area budget could have a significant impact on GDP fluctuations would be to allow for discretionary fiscal policy financed by [federal] bonds at the euro area level.” However in our proposal the great thrust for stabilization comes from investments financed by project bonds.

To conclude, federal bonds would find underwriters without difficulty if presented as a crucial means for a European recovery policy. It should be clear that a federal bond issue does not mean structural deficit spending, but an emergency measure to overcome negative VFI and asymmetric shocks. With a suitably-sized budget, the EU does not need deficit spending policies to launch a recovery plan in the short run or a sustainable development plan in the long run.

APPENDIX
Alternative Multiannual Financial Framework 2014-2020
(Commitment Appropriations in billions of euro – 2011 prices)

<i>A</i> <i>Heading</i>	<i>B</i> <i>EC MFF</i> <i>2014-20</i> <i>(2011</i> <i>proposals)</i>	<i>C</i> <i>Council</i> <i>MFF</i> <i>(2013</i> <i>proposals)</i>	<i>D</i> <i>Authors'</i> <i>proposals</i> <i>2014-</i> <i>2020</i>	<i>E</i> <i>Difference</i> <i>between</i> <i>C and D</i>
Connecting Europe Facility ¹	50	29.3	60	30.7
Horizon 2020 ²	80	70	90	20.0
GMES ³ (Copernicus)	5.9	3.8	5.9	2.1
Galileo ⁴	7	6.3	7	0.7
Economic, Social and Territorial Cohesion ⁵	336	325.1	369	43.9
EGF – EESF ⁶	3	1.0	90	89
			Total	186.4
			as % of EU GDP 2014-2020	0.19%

Notes: ¹ Investment in infrastructure to complete the trans-European energy networks, the trans-European transport network and pan-European ICT services.

² Horizon 2020 will closely link key sector policy priorities such as health, food security and bioeconomy, energy and climate change. The European Institute for Technology will be part of Horizon 2020, bringing together the three sides of the knowledge triangle – education, innovation and research.

³ Copernicus comprises a set of services, which collect data and provide information using satellites and terrestrial sensors to observe the environment and natural phenomena occurring on the planet. Copernicus improves citizen security and is a driver for economic growth and employment.

⁴ Galileo is a system of 30 satellites, replacing the American GPS.

⁵ The heading includes funds for regional convergence, transition regions, economic competitiveness, territorial cooperation, social cohesion and outlying, sparsely populated regions.

⁶ The authors propose using the legal framework of the European Globalisation Adjustment Fund (EGF) for the creation of a new European Employment Stabilisation Fund (EESF).

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Notes

1. Some economists espoused the view that the EMU crisis was caused by a balance of payments crisis in GIIPS countries. As stated in the paper (Montani, 2013), our view is that the so-called balance of payments crisis was caused by the imperfect construction of the EMU: in 2010, if NCBs and the European banking system had been able to use a marketable – or transferable – European asset instrument such as EU federal bonds, the capital flight from GIIPS to safe havens would have been much less alarming. The main task of the Central Bank in a monetary union is to provide liquidity in order to avoid systemic risk and the ECB did this without providing “a massive bail-out, a fiscal measure that does not constitute monetary policy” as Sinn and Wollmershäuser (2011: 3) say. Their analysis is based on the Target2 system in order to calculate surplus and deficit balances among EMU countries. But, in relation to this approach, we are persuaded by the observations of the President of the Bundesbank (Weidmann, 2012): “If Euro-area monetary policy were centralised at the ECB, there would be no Target2 balances; however, this would not inherently alter the risks associated with providing liquidity.” Indeed, without engendering price stability, the task of the ECB is to provide central bank money to solvent bank for sufficient collateral. Of course, “the risk remains rooted in the nature and volume of the liquidity provision” – as Weidmann says – and “any losses sustained by the ECB would have to be borne jointly by all Eurosystem central banks, irrespective of the size of their Target 2 balance.”
2. Simple debt arithmetic shows that government debt is sustainable when the interest rate is equal to or smaller than the rate of growth of GDP. On the other hand, when the interest rate is higher than the rate of growth, the debt/GDP ratio keep increasing and the burden of debt may eventually become unsustainable (Domar, 1944). Expectations of further increases in the debt/GDP ratio may in fact precipitate a self-fulfilling sovereign debt crisis regardless of any specific threshold of the debt/GDP ratio because investors may no longer be willing to purchase government bonds, assessing the likelihood of government default as too high.

References

- Afonso A. and St. Aubyn M., (2008), *Macroeconomic Rates of Return of Public and Private Investment. Crowding-in and Crowding-out Effects*, ECB Working Paper Series, No 864.
- Aiyagari S. Rao, Christiano L. and M. Eichenbaum, (1992), “The Output, Employment, and Interest Rate Effects of Government Consumption”, *Journal of Monetary Economics*, 30(1), pp. 73-86.
- Alesina, A. F. and S. Ardagna, (2012), “Large Changes in Fiscal Policy: Taxes versus Spending” in *Tax Policy and the Economy*, edited by Jeffrey R. Brown, vol. 24, Chicago, University of Chicago Press, pp. 35-68.
- Alesina, A. F. and S. Ardagna, (2012), “The Design of Fiscal Adjustment.” *NBER Working Paper Series*, w18423.

- Alesina, A. F. and Giavazzi F., (2012), "The Austerity Question: How is as Important as How Much", *www.voxeu.org*, April 13th.
- Allard C., Koeva Brooks P., Bluedorn J. C., Bornhorst F., Christopherson K., Ohnsorge F., Poghosyan T., and IMF Staff Team, (2013), *Toward a Fiscal Union for the Euro Area*, SND/13/09, Washington, September.
- Arestis, P., (2012), "Fiscal Policy: A Strong Macroeconomic Role", *Review of Keynesian Economics*, Inaugural Issue, pp. 93-108.
- Auerbach, A. J. and Y. Gorodnichenko, (2012), "Measuring the Output Responses to Fiscal Policy." *American Economic Journal: Economic Policy*, 4(2), pp. 1-27.
- Barrel, R., D. Holland and I. Hurst, (2012), "Fiscal Consolidation Part 2. Fiscal Multiplier and Fiscal Consolidation." *OECD Economic Department Working Papers*, (993), pp. 1-42.
- Batini, N., G. Callegari and G. Melina, (2012), "Successful Austerity in the United States, Europe and Japan." *IMF Working Paper*, WP/12/90.
- Baxter M., R. G. King, (1993), "Fiscal Policy in general equilibrium", *The American Economic Review*, 83(3), pp. 315-334.
- Bénassy-Quéré A., (2013), "No euro budget without eurobonds" in *Reconciling Governance and Model. A Five-fold Narrative for Europe*, Madariaga Foundation, pp. 11-16.
- Blanchard, O. and D. Leigh, (2013), "Growth Forecast Errors and Fiscal Multipliers." *IMF Working Paper*, WP/13/1.
- Blyth, M., (2013), *Austerity, the History of a Dangerous Idea*, New York, Oxford University Press.
- Calcagno, A., (2012), "Can Austerity Work?", *Review of Keynesian Economics*, Inaugural Issue, pp. 24-36.
- Christiano, L., M. Eichenbaum and S. Rebelo, (2011), "When Is the Government Spending Multiplier Large?" *Journal of Political Economy*, 119(1), pp. 78-121.
- Coenen, G. et al. (2012), "Effects of Fiscal Stimulus in Structural Models." *American Economic Journal: Macroeconomics*, 4(1), pp. 22-68.
- De Grauwe, P. (2013), *Design Failures in the Eurozone: Can They Be Fixed*. LSE 'Europe in Question' Discussion Paper Series.
- Dettmann G., (2011), "A View on Global Imbalances and their Contribution to the Financial Crisis", *Birkbek Working Papers in Economics & Finance*, 1102.
- Dettmann G., Möbert J. and Wiestroffer C., (2012), "Bilateral Current Account Rebalancing in the EMU", *Intereconomics: Review of European Economic Policy*, 47, pp. 257-264.
- Dhéret C., Martens H., Zuleg F., (2012), *Can Public Private Partnerships (PPPs) Lever Investment to Get Europe out of the Economic Crisis?* EPC Issue Paper No 71.
- Domar, E.D., (1944), The "burden of the debt" and the national income, *American Economic Review*, 34 (4), pp. 798-827.
- EC, (2010), *Europe 2020. A Strategy for Smart, Sustainable and Inclusive Growth*, COM (2010) 2020 final, Brussels.

- EC, (2011a), *Establishing the Connecting Europe Facility*, COM (2011) 665, Brussels.
- EC, (2011b), *A Framework for the Next Generation of Innovative Financial Instruments – the EU equity and debt platforms*, COM (2011) 662 final, Brussels.
- EC, (2011c), *A Pilot for the Europe 2020 Project Bond Initiative*, COM (2011) 660 final, Brussels.
- EC, (2011d), *Proposals for a Regulation of the European Parliament and of the Council Establishing the Connecting Europe Facility*, COM (2011) 665, Brussels.
- EC, (2011f), *The European Platform against Poverty and Social Exclusion*, Luxembourg.
- EC, (2012b), *Towards a job-rich recovery*, COM (2012) 173 final, Strasbourg.
- EC (2012a), *Report on the Activities of the European Globalisation Adjustment Fund in 2011*, COM (2012) 462 final, Brussels.
- EC, (2012b), *Towards a job-rich recovery*, COM (2012) 173 final, Strasbourg.
- ECB, (2012), “Euro Area Labour Market and the Crisis” in *Monthly Bulletin*, No 10, October, pp. 69-80.
- EIB, *An Outline Guide to Project Bonds Credit Enhancement and the Project Bond Initiative*, Luxembourg.
- European Council, (2013), *Conclusions (Multiannual Financial Framework)*, 7/8 February, Brussels.
- Fiorentini R. and Montani G., (2012), *The New Global Political Economy. From Crisis to Supranational Integration*, Cheltenham, Edward Elgar.
- Giavazzi, F. and M. Pagano (1996), “Non Keynesian Effects of Fiscal Policy Changes: International Evidence and Swedish Experience.” *Swedish Economic Policy Review*, 3, pp. 67-103.
- Goodhart C. A. E. and Smith S., (1993), “Stabilization” in *European Economy. Reports and studies*, No 5, pp. 417-455.
- Guajardo, J., Leigh, D. and Pescatori, A., (2011), “Expansionary Austerity: New International Evidence”, *IMF Working Paper*, WP/11/158.
- Haug J., Lamassoure A., Verhofstadt, (2011), *Europe for Growth. For a radical Change in Financing the EU*, Brussels and Paris.
- Herndon T., Ash M., and Pollin R., (2013), “Does High Public Debt Consistently Stifle Economic Growth? A critique of Reinhard and Rogoff”, *Political Economy Research Institute Working Paper Series*, 322.
- ILO, (2013), *Global Wage Report 2013: Wages and Equitable Growth*, International Labour Organization, Geneva.
- IMF, (2012), “World Economic Outlook.” Washington, October 2012.
- Jordà O., Taylor A. M., (2013), “The Time for Austerity: Estimating the Average Treatment Effect of Fiscal Policy”, *NBER Working Paper Series*, w19414.
- Keynes J. M., (1973), *The General Theory of Employment, Interest and Money*, in *The Collected Writings of John Maynard Keynes*, Cambridge, The Royal Economic Society, vol. VII.
- Mayer T., Möbert J. and Weistroffer C., (2012), “Macroeconomic Imbalances in EMU and the Eurosystem”, *CESifo Forum Special Issue*, January 2012.

- McDougall D. *et al.*, (1977), *Report of the Study Group on the Role of Public Finance in European Integration*, Voll. I-II, Luxembourg, Commission of the European Communities.
- Montani G., (2013), "The Cost of Fiscal Disunion in Europe and the New Model of Fiscal Federalism", *Bulletin of Political Economy*, vol. 7 (1), pp. 39-68.
- OECD, (2013), *Addressing Base Erosion and Profit Shifting*, Paris.
- Perotti, R., (2011), "The "Austerity Myth": Gain without Pain?" *NBER Working Paper Series*, w17571.
- Pisani-Ferry, J. (2012), The Euro Crisis and the New Impossible Trinity. *Briegel Policy Contribution*, 16.
- Ramay V. and M. D. Shapiro, (1998), "Costly Capital Reallocation and the Effects of Government Spending", *Carnegie-Rochester Conference Series on Public Policy*, 48, pp. 145-195.
- Reinhart, C. and Rogoff, K. S. (2010), "Growth in Time of Debt", *American Economic Review: Papers & Proceedings*, 100.
- Report of an independent group of economists, (1993), "Stable Money, Sound Finances. Community public finance in the perspective of the EMU", in *European Economy*, No 53.
- Ricciuti, R., (2003), "Assessing Ricardian Equivalence", *Journal of Economic Surveys*, No. 17, pp. 55-78.
- Romp W. and de Haan J., (2007), "Public Capital and Economic Growth: A Critical Survey" in *Perspective der Wirtschaftspolitik*, pp. 6-52.
- Seidman, L., (2012), "Keynesian Stimulus versus Classical Austerity", *Review of Keynesian Economics*, Inaugural Issue, pp. 77-92.
- Sinn H-W. and Wollmershäuser T., (2011), *Target Loans, Current Account Balances and Capital Flows: The ECB's Rescue Facility*, CESifo Working Paper, No 3500.
- Spinelli Group, Bertelsmann Stiftung, (2013), *A Fundamental Law of the European Union*, Bielefeld, Verlag Bertelsmann Stiftung.
- Stiglitz J. E., Sen A., and Fitoussi J. P., (2009), *Report by the Commission on the Measurement of Economic Performance and Social Progress*, Paris.
- Tamborini R., (2012), "Market Opinions, Fundamentals and the Euro-sovereign Debt Crisis", *University of Trento, Department of economics*, WP 10/2012.
- Tilford S., (2012), *Economic Recovery Requires a Better Deal for Labour*, Centre For European Reform, November.
- Trésor-éco, (2013), *Un budget pour la zone euro*, Lettre No 120, Paris, October.
- Wagenvoort R., de Nicola C., Kappeler A., (2010), *Infrastructure Finance in Europe: Composition, Evolution and Crisis Impact*, in EIB, 2010, *Public and Private Financing of Infrastructure. Evolution and Economics of Private Infrastructure Finance*, EIB Papers, Vol. 15, No 1.
- Weidmann J. (2012), "Origin and Meaning of the Target2 balances," *Frankfurter Allgemeine Zeitung and Bundesbank* (13 March 2012).
- Zeza, G., (2012), "The Impact of Fiscal Austerity in the Eurozone", *Review of Keynesian Economics*, Inaugural Issue, pp. 37-54.

