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Restarting Growth in Europe

Karl Aiginger* and Christian Glocker**

Abstract

European GDP is still below its pre-crisis level. The unemployment rate is higher than before the crisis and higher than in the US. Europe has a current account surplus, lower debt relative to GDP than the US, lower differences between high and low incomes, less poverty and better vocational training and ecological performance. But absence of growth endangers also social and ecological ambitions. Four preconditions for restarting growth are emphasised: better governance, a new strategy for the South, a systemic industrial policy and to make use of the high growth of the neighbour countries. Europe offers- and should go along this path with more determination- an attractive socio economic model emphasizing beyond-GDP goals not prioritized in the US and Asian model. We redefine competitiveness as "ability of a country to deliver Beyond GDP-goals", thus downgrading the current pre occupation of economic policy with cost cutting and show that Europe's competitiveness relative to the US is much better if social and ecological goals are included in the evaluation instead of focussing on labour and energy costs only

Keywords *economic growth competitiveness better governance industrial policy enlargement*

JEL Classifikation *E20, E60, F43, F60 H10, I53*

Introduction and Outline

This article analyses the macroeconomic performance of Europe prior to the Great Recession, in the immediate aftermath as well as in the long run. We report studies explaining the origin of the crisis and how the European economy (with focus on EU-28 and euro zone) performs thereafter, mainly in a comparative perspective with the US. We dwell on the literature but also very strongly on the outcomes of WWWforEurope, a European research program commissioned by DG enterprise, in which 33 European research teams are cooperating under the lead of WIFO in order

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to develop a more dynamic, more inclusive and more sustainable path of growth for Europe. This path needs a new compass, therefore we define competiveness as "ability to provide beyond-GDP goals" and show that Europe performs better according to this definition relative to the US, than if we use GDP or per capita GDP as only yardstick. For restoring growth we analyse the importance of a new governance structure, a strategy to solve the current problems of Southern Europe, the quest and content of a new industrial policy, and the necessity to redefine Europe's role in the globalising world. These are four pillars necessary for restoring growth in Europe

1. The Macroeconomic Performance of Europe

Europe has successfully managed to catch up with the leading US economy after the World War II up to the nineties. GDP per capita and even more GDP per employee and per hours increased faster in Europe for many decades and the gap vs. the US narrowed from 40% to 30% in per capita income In the nineties the catching up process came to a halt and since that the differences have increased or narrowed down in short waves and with differences according to the indicator used. As for the reasons for the inability of Europe to close the remaining gap in income and productivity, the literature (see for instance Aiginger/Landesmann 2002; Landesmann/Stehrer 2006, 2007) refers to (i) difficulties of regions to close the difference to the leading economy if the gap to the frontier economy narrows, (ii) the superiority of the US in two new generic technologies (ICT and biotechnology), (iii) lacking capabilities of Europe specifically important for the lead economy (world class universities and excellence of the innovation system), (iv) the inability of Europe to pursue given strategies (Lisbon, EU-2020), or finally (v) less growth focus of fiscal and monetary policy The financial crisis—with many of its reasons originating in the US—quickly spread to Europe. The US has recovered faster from the crisis surpassing the pre-crisis output by 10%, while European output is about to reach its pre-crisis level in 2015 (Europe looks better for GDP per capita). European performance is better if trade data are used and if the analysis concentrates on manufacturing. Europe has a trade surplus, its share in world trade is rather stable, and the share of manufacturing declines much less in Europe despite a rebound of US manufacturing due to energy-intensive industries. Nowadays the euro is valued higher relative to the dollar than at its start However Europe pays on average higher interest rates for a smaller stock of public debt, and differences across countries are substantial

The financial crisis turned into a debt crisis in the euro area[1] in late 2009, when a new Greek government revealed that official government budget data had been misreported by previous governments Deficit levels turned out to be severely higher than expected. This eroded investor confidence and caused bond spreads to rise to unsustainably high levels. Fears quickly spread that the fiscal positions and debt levels of a number of countries in the euro zone were unsustainable In May 2010, Greece received a financial assistance package from other euro zone governments and the IMF in order to avoid defaulting on its debt Investors became increasingly nervous about public finances in Ireland and Portugal, and, as their bond spreads rose, the two countries also requested European-IMF financial assistance packages that were finalized in December 2010 and May 2011, respectively Spain and Cyprus were two further countries that received financial assistance so far

1.1 Origin and Consequences of the European Debt Crisis

The euro crisis is likely the biggest macroeconomic event in the early 21st century With the recent recession in the United States, it combines the financial roots, the depth of the economic downturn and the slow recovery in the labour market With the rise of China, the euro crisis combines the important role of capital movements and imbalances in the current account The European Union is the largest economy in the world, but it is also the economic region with probably the lowest growth in the years to come

Explaining the crisis is no simple task[2]. There is no single factor that can explain the Great Recession. If there is a minimal consensus about the causes, it can be summarized insofar that the crisis had microeconomic as well as macroeconomic causes, and new products and new institutions in the financial sector played a role. Countries with high credit growth, with specifically high GDP growth and with current account deficits were hit harder, and the crisis had more severe effects in countries with high debt.

The extent of the crisis provides a crucial clue, however. The fact that many European countries succumbed simultaneously suggests that international factors played a key role in the onset of the crisis. On the other hand, the fact that some European countries were hard hit while others were not suggests that domestic factors, that is, factors internal to the debtor countries, also played a role. The inflow of capital and subsequent build-up of public and private debt over the past decade into European peripheral countries was a key factor in the build-up to the current crisis As these countries prepared to adopt the euro and transitioned from national currencies to the euro, their bond spreads fell dramatically, converging to the interest rates paid by the traditionally stronger economies of euro zone "core" countries. The upswing in global liquidity turned out to be essential for all this (CGFS 2011, Bruno/Shin 2013). The environment before the crisis was characterized by an abundance of liquidity and high risk appetite Funds were available for peripheral European

[1] The terms EMU, euro zone and euro area are used synonymously throughout the text, even though, in legal terms, EMU refers to the economic and monetary union chapter in the EU Treaty, which applies to all EU members, albeit to a different extent. In practice, not all EU members have introduced the euro as their legal tender, in accordance with the procedures laid down in the EU treaties.

[2] See Aiginger (2010 A, B, 2011, 2012), Iichy (2013)

countries at very low interest rates, indeed interest rates that were negative in real terms. It seemed that the combination of low interest rates and rapid growth assured that servicing loans in the future would be no problem[3] As a consequence of that government bond spreads did not reflect differences in macroeconomic fundamentals. This distorted incentives, both in the public and the private sectors.

As the public and private sectors in the periphery countries took advantage of access to new, cheap credit, the capital inflows were not always sufficiently used for productive investments in the economy that could generate the resources which to repay the debt with. As a result, debt levels started rising along an unsustainable path. In some countries, this debt was concentrated in the public sector, such as in Greece, where public finances were severely mismanaged. In other countries, debt accumulated in the private sector—such as in Ireland and Spain, which had serious banking and real estate bubbles. The unsustainable nature of these debts was exposed during the global financial crisis of 2008–2009, when capital markets froze up and it became difficult for governments, households, and firms to access new loans and, in particular, roll over existing debt. Additionally, the financial crisis and ensuing recession strained public finances which came as a consequence of the working of automatic stabilizers: government spending increased and tax revenues fell. In some cases, the government assumed private sector debt, perhaps most notably in Ireland, where the government guaranteed bank debt. Some governments verged towards default on their debt.

The Importance of Domestic Factors

Although capital inflows contributed to the build-up of debt in the periphery, factors specific to each country also contributed to the current crisis. Capital inflows fuelling domestic demand lead to high levels of growth in some countries, but also to excess price and wage inflation. Increasing prices and wages in the periphery reduced competitiveness against other euro zone countries, like Germany, which had pursued policies such as wage restraint that kept prices relatively low and bolstered exports (see for instance Schnabl/Freitag 2011). As a result, the periphery countries started running trade deficits, which were associated with borrowing, particularly from banks in the euro zone "core", especially German banks. The ensuing current account deficits reflected increasing domestic disequilibria in financial as well as goods markets. The demand side disequilibrium was reflected in the fact that savings and investment did not have much in common any more. Increasing current account deficits caused the correlation between savings and investment to vanish. While savings declined continuously, investment soared, financed solely by foreign capital inflows. The demand side disequilibrium of course does not go without a corresponding disequilibrium on the supply side which is, however, more difficult to detect. In fact the supply side disequilibrium comprises a sectoral imbalance, which resulted from the high growth rates and higher inflation rates of peripheral European countries prior to the crisis[4]. In fact, price incentives were the key drivers for this shift in the composition of output: (1) the increase in the price of tradable goods in peripheral European countries relative to the price of tradable goods in "core" European countries triggered a severe decline in external competitiveness and hence in exports, and (2) an increase in the price of nontradable goods relative to tradable goods prices in peripheral European countries caused a shift of production input factors from the tradable goods sector to the nontradable goods sector. In other words, the relative price adjustment of tradable goods prices with respect to trading partners deteriorated the competitiveness and health of the external sector (external balance), while the adverse re-allocation of resources from the tradables to the nontradables sectors worsened the internal balance (see also Estrada et al. 2013). Moreover, this sectoral asymmetry reflects a simple fact: The demand for nontradable goods can only be met by greater domestic production; by contrast, an increase in the demand for tradable goods can be satisfied by imports. The consequences of these sectoral imbalances are chronic trade and current account deficits as they were observed in the peripheral European countries. Although such current account problems had happened in the crisis countries before, they were previously corrected by devaluations. However, membership in the euro zone constrained the ability of the periphery governments to respond to growing trade deficits and domestic imbalances in the goods supply and demand markets. If the periphery countries had not been in the euro zone, they could have reduced their trade deficits through currency depreciation, which would have helped bolster exports to other

[3] An upswing in global liquidity seems to be an important ingredient for an ensuing debt crisis. Similar as with the European debt crisis also the Latin American debt crisis in the 1980s and early 1990s was preceded by an upswing in global liquidity. Ahead of the European debt crisis the upswing in global liquidity was primarily triggered by an increase in non-core liquidity on the liabilities side of financial corporations. Access to the wholesale funding market turned out to be essential here (CGFS 2011; Bruno/Shin 2013). With the Latin American debt crisis, the prior increase in global liquidity was a consequence of the two oil price shocks in the 1970s that raised financial corporations' stock of core liquidity: The oil exporting countries of the Middle East deposited their huge increases in earnings in the international banks operating primarily in the US and Europe. The oil shock therefore contributed to a tremendous increase in the availability of banks' funds, which were used for international credits for emerging market economies. The governments in these countries, many of which had been unable to attract bank loans before, suddenly found that international commercial banks were eager to lend (see for instance Federal Financial Institutions Examination Council 1983 and Devlin/French-Davis 1995). Hence in both cases, abundant liquidity undermined market discipline, this could otherwise have become an important pillar of macroeconomic and fiscal discipline. In this vein, debt crises tend to be closely related—at least of what concerns the international factors—to global liquidity and its cycles.

[4] When overall absorption is high, there is more spending on both tradable and nontradable goods. The higher demand for nontradable goods requires greater production of nontradable goods in order that demand and supply for nontradable goods be in balance. But higher production of nontradable can occur only by shifting resources out of the tradable goods sector and into the nontradable goods sector. Higher overall demand therefore leads to a rise in the production of nontradable goods and a fall in the production of tradable goods (see for instance Sachs/Larrain 1992).

euro zone countries and stem imports[5]. Likewise, the periphery countries could have raised interest rates to slow economic growth in response to a potentially overheating economy. But as members of the euro zone, neither devaluation nor an increase in interest rates was an available policy option for individual member states.

The Role of the Banking Sector

An analysis of cross-border capital flows between 1999 and 2007 shows that the supply of capital from European core economies to peripheral countries was primarily in the form of bank credit, but hardly in the form of stakes in companies or equity capital. In the centre of capital supply were banks of core economies, since the European market for corporate bonds is generally less developed than in the United States. The banking sector in Europe plays therefore a much larger role for the real economy than it is the case in the United States. During the last decade European banks grew on average much faster than their US counterparts. Some have reached a size so big that it undermines some home countries' ability to credibly backstop their national banking system.

A reason for the fast growth of bank balance sheets is due to the emergence of new financial products. Nowadays banks operate differently than in the conventional textbook model (Diamond-Dybvig model). In this model, the asset side of the bank balance sheet comprises loans (for example, in companies or to finance real estate) and financial assets such as government bonds. These assets are mainly long-term and illiquid. The refinancing of these facilities is done in the textbook model primarily through short-term deposits from households. Customer confidence in deposit insurance systems and government guarantees will ensure that these actually short-term deposits stay with banks for a longer term. This model of the financial system has changed dramatically in recent decades. On the asset side, banks securitize a portion of their loans, including real estate, which are then in principle tradable financial assets. This process was observed before the crisis, not only in the United States, but also in Ireland and Spain. For banks the use of such securitization tools creates two risks that traditional banks are not familiar with: On the one hand the securitized and tradable assets are subject to the risk of losses from declining market values. Secondly, there is the risk that the markets for securitized assets turn illiquid if banks want to sell these assets in high volume. In this vein, a "false sense of security" is created because one might misleadingly have the impression that one can sell large quantities of securities at current market prices.

On the liabilities side, next to both equity and deposits from households, modern banks have discovered a further source of funding: the market for short-term borrowings from other financial companies (the wholesale funding market). The two main sources of funding are unsecured borrowings and securities sold with a repurchase agreement (repo). Banks with access to the wholesale market could grow rapidly in the years before the crisis outbreak.

[5] This, of course raised questions concerning the appropriateness of a common monetary policy for individual countries ("one size fits all"), see for instance Nechio (2011).

These technological innovations in the financial sector comprise factors that can contribute to the reinforcement of cycles in asset prices: If real estate prices rise, then the market value of shares held by the banks' securitization of real estate loans rises too. Thus, the volume of financing of banks that use securitized assets for repo transactions increases. Since these assets were of extremely short maturity and hedged through securitization, they enjoyed de facto seniority over ordinary deposits. This encouraged banks in the core of the euro zone to offer funds to banks in the periphery generously. The risk has been passed on to the deposit insurance funds. The higher financing volume of banks in the periphery enabled them to award additional loans in the real estate market. These effects were observed before the crisis, among others, in regional Spanish banks ("las cajas") which were highly intertwined with regional governments. The tight ties between regional banks and regional governments had effects on the distribution of funds: An important function of banks is to decide which projects will be funded. After the traditional neoclassical growth theory, the capital would have to flow from the core of the monetary union to the most profitable sectors of the periphery, that is, not least in the manufacturing sector which is subject to international competition. But this was not the case—the manufacturing sector has shrunk in the periphery since the introduction of the euro. Instead, the capital was invested in less profitable projects in Spain and Ireland, mainly in the private construction and real estate industry. In Greece, Italy and Portugal, the capital was primarily used to finance government deficits.

The inefficient use of economic resources is not a phenomenon that can be observed alone in the European periphery. Modern research shows that poorer countries not only have fewer resources than rich countries, but that they often do not use their resources efficiently. In the case of the European periphery such misuse may have been influenced by two factors: on the one hand the abundance of capital inflows from European core countries triggered a careless use of these funds. Moreover, this abundance reduced the pressure on peripheral countries' governments to implement structural reforms to foster competition, etc. On the other hand, a relatively low level of financial market development of European peripheral countries in conjunction with government intervention concerning the distribution of funds promoted a misdirection of capital to unproductive sectors. This is also the reason why low productive enterprises in isolated sectors in peripheral countries managed to survive for a long time.

From a general point of view, credit growth in the euro zone was not higher than in other industrialized countries before the crisis. However, the access to short-term financing on the wholesale market allowed banks in the periphery a more rapid growth of credit which relied to a large extent on collateral securities, which themselves relied on the securitization of receivables from the less productive part of the economy. This made the euro zone very vulnerable to economic shocks.

Some Lessons from the Debt Crisis

In this vein, one lesson from the crisis is that dangerous imbalances can build up underneath a seemingly tranquil macroeconomic surface, in which inflation had been low and output gaps had been close to zero Sectoral booms, as for instance the boom in the non-tradable goods sector in countries like Spain and Ireland, may lead to an unsustainable composition of output. Equally, financial risks can build up because of the way the real sector is funded (excessively leveraged banks, households and firms; maturity mismatches in assets and liabilities in financial institutions' balance sheets; risky off-balance-sheet items). The effects of these imbalances are highly non-linear. Long and gradual build-ups can be followed by abrupt and sharp busts with major welfare consequences These general remarks should also serve to highlight the striking similarities of the build up of the European debt crisis with that of other countries' crises that had happened before, in particular, the Latin American debt crisis (see for instance Sachs/Larrain 1992; George 2013).

1.2 The Current Status

Five years after the global financial crisis burst and three years after the ensuing European debt crisis, the economic status in Europe is still worrisome Even though the economies show some signs of recovery uncertainty remains at high levels. Record unemployment, depressed disposable incomes and wealth, and high indebtedness in some countries have been weighing on households' behaviour, and the recovery in private consumption is likely to be very slow. Progress on improving cost competitiveness and increasing exports is not yet strong enough to offset depressed internal demand Meanwhile, uncertainty about growth prospects continues to play a role in firms' investment decisions Uncertainty in the corporate sector is not only depressed due to the subdued economic outlook, especially the corporate debt overhang in the periphery is dragging on growth. Compounding concerns about public finances in the euro zone periphery are weaknesses in the euro zone's banking system Many euro zone banks hold "periphery" bonds, and concerns have been raised regarding the sufficiency of bank capital in peripheral countries to absorb losses on the holdings of sovereign bonds should one or more euro zone governments default or restructure their debt The crisis has also triggered capital flight from banks in some euro zone countries, and some banks are reportedly finding it difficult to borrow in private capital markets, causing some investors to fear a banking crisis in Europe that could have global repercussions. The short and medium term economic outlook is hence characterized by low growth rates and unemployment remaining at high levels It is for this reason that more and more economists associate the economic development in Europe with a lost decade similar, as it was the case with the Latin American debt crisis

On the positive side unit labour costs declined in peripheral countries due to wage restraints and there was a moderate acceleration in productivity growth The

peripheral countries are now back in the position they were in 2000 relative to their European partners excluding Germany Relative to Germany, however, unit labour costs have risen ten percentage points faster since 2000[6]. A relative success is also seen in the halving of the double digit current account deficits over the last four years. This success may, however, prove to be short lived given that half of this improvement is due to a reduction in import shares—which will increase again once the peripheral countries resume growth The rebound in the current account is, however, of importance in order to guarantee foreign debt sustainability In line with the improvement in these countries' external position is a corresponding shift in the process of production[7] The decline in the current account deficits is also reflected in the re-emerging correlation between national savings and investment, known as the Feldstein-Horioka puzzle (see Feldstein/Horioka 1980).

So far, the lack of more active fiscal policy is understandable given the large public deficits It is, however, problematic given that the peripheral countries—like regions within a country—cannot devalue their currency The experience of both regional economics as well as the empirical growth literature suggest that active policies (such as policies aiming to attract foreign investments, improve educational attainment, foster R&D expenditures and the support of business start ups and growth) are a necessary precondition for lagging regions to catch up

Public expenditures can be shifted from those with low or negative impact on employment or growth to those with a high multiplier, e g , from bureaucracy to education and innovation. It is often forgotten that the latter—while their supply side effect takes long to work—have a specifically large short run effect on demand, since they have a low import as well as investment content (and large employment content) Shifting taxes from labour to property, or intensifying tax compliance also boost employment and growth without increasing public deficits Structural effects thus can more than outweight aggregate effects and public finance can boost growth in a period of "aggregate austerity" (see for instance Aiginger 2010A, Aiginger 2010B)

6 See Aiginger/Firgo/Huber (2013)

7 A shift from a situation of borrowing to repayment, or at least a declining foreign deficit, also requires a corresponding shift in the patterns of domestic production, which is shift from the nontradable to the tradable goods sector (see for instance Sachs and Larrain 1992) As indicated in IMF (2013) the tradable goods sector is gaining strength relative to the nontradable goods sector in most of the peripheral European countries

2 Looking Deeper: Competitiveness of Europe According to a New Concept

2.1 Re-defining Competitiveness for Rich Countries

Historically, the term competitiveness has been used primarily to draw attention to the cost position of firms or countries. It is still often used today when an economy (or a firm or industry) is challenged by new low-cost competitors. It is this narrow focus on costs that was criticised by Krugman (1994A, 1994B, 1996) as "elusive and meaningless" at the conceptual level and as "misleading or even dangerous" at the policy level, since this interpretation implies that cost reduction is the only effective policy response [8]

The concept was improved in a first step by adding the productivity side to the evaluations (mainly labour productivity) thus arriving at "unit labour costs" as measure of cost competitiveness. In a second step the notion of competitiveness switched from emphasizing inputs to the evaluation of outcomes In policy documents of the European Commission (1995, 1998, 2001, 2007, 2010) and of the OECD (1995, 2011) competitiveness is defined as the ability to provide higher incomes, welfare and employment (see also Grilo/Koopman 2006).

Specifically for frontier countries it is essential to define the potential of an economy with respect to the capabilities creating competitiveness of a high-income economy (like education and innovation) and specifically for changing the growth path towards a more inclusive and sustainable one it is important to measure the success by a broader set of economic goals The large European research project WWWforEurope[9] defines competitiveness as the "ability of a country (region, location) to deliver beyond-GDP goals for its citizens" The term is now closely connected to a welfare assessment in the beyond-GDP literature. It combines an evaluation of inputs or processes on the one hand ("input competitiveness") with an assessment of outcomes and goals on the other ("outcome competitiveness") We apply the concept for comparing Europe with the US, as to show that these concepts make a difference to conventional assessments, which is important if Europe gives greater emphasis to social and ecological goals [10]

[8] To some degree, this preoccupation with costs comes from the origin of the concept of competitiveness at the level of the firm. However, even at the firm level, the theory of the firm and management theory emphasise that success in oligopolistic markets depends on "competitive advantage" and capabilities generated by innovation (Aiginger 2006). Complaints about losing competitiveness focus on wages as the main cost component, but they also extend to high energy prices and taxes.

[9] Aiginger/Bärenthaler-Sieber/Vogel (2013; http://www.foreurope.eu/).

[10] For a similar approach see Ketels (2006) and Ketels/Protsiv (2013)

2.2 The Input Competitiveness of Europe

We now apply the concept to evaluate the income competitiveness of Europe. We start from the traditional assessments of wages and productivity, and then assess production structure and capabilities (revealing strength and deficits), specifically adding indicators which measure the potential of an activating social policy and of ecological ambitions

Price Competitiveness

Wages and per capita productivity are about one third lower in the EU than in the US. The comparison with Japan also reveals a gap, but compensation per capita is about equal in Japan and the euro area. The wage spread is, however, large within the European Union Wages are higher in four small countries (Luxemburg, Denmark, Belgium and Netherlands) than in the US In new member countries they are less than 30 percent of the US level The wage gap Europe vs. the US is even larger for manufacturing, since compensation in manufacturing in the US is about 20 percent higher and in Europe it is only four percent higher than in the total economy [11]

Since the overall productivity gap between Europe and the US is of the same magnitude as the wage difference, the unit labour cost (level) is about equal [12]

Structure and Abilities

Qualitative elements of (input) competitiveness can be derived from the production structure (here we measure the share of sophisticated industries like technology-driven, high-skill or eco industries) or from capabilities (innovation, education, institutions, ecological ambition, social empowerment)

Europe had trailed the US in the sophistication of its *trade structure* for a long time, but by now had caught up in the export structure or even taken the lead if total trade is analysed. The share of technology-driven industries and that of skill-intensive industries is now about equal As far as industries with knowledge-based service input are concerned, the US and Japan have slightly higher export shares than Europe. Europe and the US have equal shares of quality-dominated industries [13]

[11] The wage premium in the US vs EU-27 increases for manufacturing therefore to 65 percent (34 percent for euro area), in manufacturing only Belgium has wages rather similar to the US

[12] The productivity gap is somewhat smaller for Europe than the wage gap for the total economy and larger for manufacturing. This indicates a potential for Europe to increase productivity specifically in manufacturing Looking at the dynamics between 2000 and 2011, wages as well as productivity increased faster in the US for the total economy but marginally faster in Europe for manufacturing

[13] For analysis of industrial structure of European manufacturing see also Janger et al. (2011)

In eco industries and renewables Europe has a higher share than the US, but China and Japan are definitely one step ahead in both types of industries

The structural position of the US is less favourable if trade instead of exports is analysed Since the US imports are rather sophisticated too, the US has a trade deficit in all four types of sophisticated sectors. The US deficit in technology-driven industries amounts to 178 m euro (2011), while Europe enjoys a trade surplus of 101 m euro in this sector The same results—deficits for the US and surpluses for Europe—hold for skill-intensive industries as well as for knowledge-based and quality-dominated industries

Looking at *capabilities*, Europe is still trailing the US and Japan in innovation and education Expenditure for R&D as well as attainment in tertiary education is much lower In R&D it is firms' expenditure which is much lower in Europe; government spending is about equal For total R&D only Sweden and Finland are ahead of Japan and the US

Education expenditure is about the same in relation to GDP, but somewhat less in Japan Pre-school education receives more funds and more children are involved in Europe than in the US Enrolment in vocational and dual programs is about 50 percent in Europe, very low in Japan and rather unknown in the US.

For productivity-enhancing elements (Bock-Schappelwein et al. 2009) of the social system like active labour market policy[14] and social expenditures on children (and family and disability)—Europe spends more. Social benefits on sickness and health care are about the same in Europe and the US; they are lower in Japan and much lower in Switzerland [15]

Europe leads in most indicators on environmental ambition Tax revenues from environmental taxes are three times higher in the EU-27 than in the US The share of organic farming is higher, as is the share of eco patents and recycling rates

As far as institutions are concerned, the EU has stronger regulated labour markets and stricter business regulation. Governance indicators show better "voice and accountability" and better corruption control for Europe, but lower regulatory quality and less rule of law In all indicators Switzerland excels, Japan is behind Europe and the US with the exception of corruption control

14 For active labour market policy double the money is spent relative to Japan and four times relative to the US, it varies more than 10 to 1 between Denmark and UK (as well as new member countries)

15 Disability benefits are much higher as are social benefits for children and family, so that total social expenditure is higher in Europe Benefits on sickness and health care vary between less than 5 percent in many new member countries and more than 10 percent in Ireland and the Netherlands The EU is not able to exploit the potential of its well educated female workforce; the female employment rate is 64 percent, still four percentage points lower than in the US and 12 percent lower than in Switzerland. Sweden and Denmark have female employments rates higher than 75 percent, it is about 50 percent only in Italy and Greece

Summing up Europe succeeded to catch up with the US in the "sophistication" of industrial structure and has a trade surplus in many sophisticated industries, while the US deficit in technology-driven industries is large and increasing But Europe is still behind the US in many aspects of innovation and education, specifically at the high end of these systems.

2.3 Output Competitiveness Old and New; Comprehensive Indicators

The differences between the traditional approach and that emphasizing socio-ecological goals is also to be seen for outcomes. The *traditional* output indicators report a lead by the US: GDP per capita (less in GDP per hour)[16] and employment rates are higher, unemployment is lower Limits to Europe's lead in the set of traditional indicators exist, since public deficits and debt levels are higher and the current account is negative in the US.[17]

Table 1

Labour Costs and Productivity Relative to the US, 2011

	Compensation per employee		Output per person employed		Unit labour costs	
	Total economy	Manu-facturing	Total economy	Manu-facturing	Total economy	Manu-facturing
	US = 100				Levels (wage share)	
EU-27	70 0	60 8	74.7	59 9	0 584	0.680
United States	100.0	100.0	100 0	100.0	0 593	0.544

Source: Eurostat (AMECO), WIFO calculations; Aiginger/Bärenthaler-Sieber/Vogel (2013).

16 GDP per capita at PPS is 50 percent higher in the US than in EU-27 (40 percent vs euro area), EU-27 is also trailing Japan (10 percent) and Switzerland (42 percent). GDP per capita at PPS in China is one fourth of Europe. The countries with highest GDP in Europe (Switzerland outside EU-27 and Netherlands and Austria inside) have about 15 percent lower per capita income than the US

17 Budget deficits and debt are much higher in the US and in Japan as compared to EU-27; The current account is deeply in the red in the US, all other regions have surpluses, the largest relative to GDP in Switzerland, followed by Japan; EU-27 current account is balanced, with deficits in the south and large surpluses in Sweden, the Netherlands, Germany and Denmark

Table 2

Export Structures and Trade Balance, 2011

	Export structure (shares)				Trade balance (mn euro)				
	Technology driven industries	High-skill industries	Knowledge-based services	High RQE	Technology driven industries	High-skill industries	Knowledge-based services	High RQE	Manu-facturing
EU-27	34.2	28.5	19.6	52.1	101,173	165,938	12,008	304,250	261,594
United States	32.0	23.2	22.3	45.0	−177,993	−79,886	−33,874	−192,297	−367,757

Source: Eurostat (Comext), UNO (Comtrade), WIFO calculations; Aiginger/Bärenthaler-Sieber/Vogel (2013). RQU (revealed quality elasticity) = share of industries where quality, not price defines the competitive mode (Aiginger 2006).

Table 3

Incomes EU vs. US, 2011

	GDP at PPS	Net national income	Net disposable domestic income	Household final consumption expenditure
	Per capita data US = 100			
EU-27	65.5	63.1	53.5	52.9

Source: Eurostat (AMECO), WIFO calculations; Aiginger/Bärenthaler-Sieber/Vogel (2013).

For *beyond-GDP goals* the picture is different. The US still leads in the *"income pillar"*, even more if we switch from per capita GDP to household income. The results for the "social pillar" are mixed. Europe definitely leads in the "ecological pillar".

Concerning the *"social pillar"* Europe leads in equity as well as in poverty prevention, but the US has lower youth and long-term unemployment. Poverty is much higher in the US as compared to the European Union, mainly since the reduction of poverty through social transfers is one third less. Along the same line indicators on income distribution show less difference between high and low income levels in Europe. The long-term unemployment rate, the youth unemployment rate as well as the gender gap are definitely larger in Europe than in the US. This is a severe sign that labour markets do not work perfectly in Europe in spite of high expenditure on active labour market measures. The employment gender gap is about one third larger in Europe than in the US.

Within the *"ecological pillar"* the emissions of carbon dioxide are much lower and energy efficiency much higher in Europe, the share of renewable energy is larger as is the share of organic farming.[18]

2.4 Summing Up

As far as outcome competitiveness is concerned, traditional assessments show Europe trailing the US in GDP per capita. This is also the case for GDP per hour and employment and unemployment, however, to a lesser extent. Adding fiscal sustainability as well as the ability to cover imports by exports yields a more favourable result for Europe. If we switch to the new perspective of beyond-GDP indicators, Europe is still trailing in the "income pillar" (the distance to the leading US household income is even larger than for GDP per capita), but Europe is leading according to many indicators for the "social pillar" (inclusion, poverty prevention) and practically in all indicators for the "ecological pillar". Thus competitiveness of Europe is better if it is evaluated relative to the beyond-GDP goals than if we use the traditional indicators only. And Europe leads in life expectancy, one of the most comprehensive indicators for overall well being.

18 A substitute for evaluating "beyond-GDP Welfare" by a plethora indicators is to look out "comprehensive indicators" which indicate overall well-being. Life expectancy at birth is higher in Europe than in the US. Survey respondents in the US report life satisfaction as well as a good work-life balance more frequently. As far as happiness is concerned Europe reports rather low happy life years.

3. Restarting Growth

This section discusses several proposals that are considered essential for the extent to which growth can be restored in European periphery countries in particular and the Euro area as a whole in more general

3.1 Better Governance

Despite numerous changes in economic governance, Europe has failed to reverse the momentum of economic uncertainties The economic, social and political damage is already considerable with the economies in crises countries being dragged into recession, soaring unemployment and elevated euro scepticism. The original set-up of the EMU proved incapable of ensuring long-term stability in a sub-optimal currency union, specifically in the aftermath of the financial crisis. The principle causes of the euro area's instability are the following: (i) the hope that the monetary union would by itself spur convergence, turned out to be overly optimistic In fact Estrada et al (2013) document that, among others, there is strong evidence of convergence towards low inflation rates in euro zone countries over the past two decades, though that convergence tends to be unrelated to the monetary union itself since it has been experienced by most advanced economies. Moreover, the single monetary policy was not adequate for both core and periphery countries and triggered asymmetric cyclical effects (see for instance Nechio 2011). (ii) Fiscal rules could not prevent deficits and debt from being too high in "good times" and rising dramatically during the crisis. Moreover, despite the no-bail out clause, the risk of sovereign default of individual member states was neglected The misperception of risks by financial investors allowed inappropriately low interest rates to develop in some countries. This in turn fuelled credit-driven demand and asset price bubbles. The absence of a lender of last resort for states resulted in a self-reinforcing fiscal crisis. The euro zone has a common monetary policy and currency, without creating a fiscal union, and therefore it does not have a centralized budget authority or system of fiscal transfers across member states Possibly, under a tight fiscal union, a central budget authority could control spending in different euro zone member states, and use fiscal transfers to smooth out asymmetric shocks within the euro zone. (iii) Decentralized, diverse and insufficient banking regulation and a lack of trust and transparency led to a fragmentation of financial markets during the crisis and a fatal link between states' and banks' solvency.

Plenty of significant and far-ranging reforms on the European level carried out over the last three years aimed to strengthen EMU governance They have kept the euro afloat and the euro area in one piece and avoided the alternative scenario of a break-up, competitive devaluations and protectionist national responses However, the measures taken did not alleviate the concerns of financial investors about EMU's sustainability. The pressure on deficit countries remains high, with their economies in recession and unemployment reaching record levels Excessive austerity without being counterbalanced by growth and employment measures threatens to damage social and political cohesion as well as the economic prospects of future generations. As a consequence of that, the failure to provide a long-run perspective for the EMU severely undermines political support in both creditor and debtor countries Crisis politics has triggered widespread discontent over the road embarked upon by the EU and its member states At policy level, the decision to bail out countries and to impose structural adjustment programmes on them has pitted creditors and debtors in opposition to each other At a constitutional level, some measures may also be regarded as being in potential conflict with EU treaties and national law The decision-making system has become more complex in the public's perception and its accountability less clear The increasing apathy concerning political issues on the European level can be seen well by the anti-EU populist parties being on the rise. This background of weak legitimacy represents a huge obstacle to laying the ground for more sustainable governance in the EU. A weak sense of identification with Europe and of Europe-wide solidarity runs counter the logic of deeper integration

Recent governance changes in EMU have produced a blurry picture of technocracy and inter-governmentalism The crisis has seen a growing lack of trust in the Community method. The ESM treaty only gives a consultative role to the European Commission. The European Parliament is largely sidelined from the European Semester The pivotal role of the European Council in designing an inter-state insurance system and in deciding on its use gives the impression of an EU governed by EMU's biggest countries.

This new institutional balance is further complicated by the unsolved and unclear relationship between the EU countries and the developing EMU institutions. Further integration in EMU will raise these tensions even more Ad-hoc measures increase the tendency of the decision-making system to become more complex and difficult to manage Intergovernmental arrangements will possibly interfere with Community institutions The integrity of the single market could be damaged by specific regulatory arrangements necessary to coordinate policy in the EMU Any deeper integration can create stress between Euro-ins and Euro-outs.

The need for further changes in EU governance to restore stability is widely accepted, as a break-up of EMU would possibly come along with economic and political costs. Hence, the option of a smaller, though possibly, more optimal monetary union is therefore not considered here Still, the exit of a member state might happen as a consequence of crisis mismanagement or national choice; however, EU leaders should not view it as a strategic policy option

3.1.1 Short-Run Measures

In the short run, a more assertive response is needed to overcome the immediate crisis and get euro area countries back on the track of growth This, however, will

not be sufficient: for the measures to be credible to financial markets and supported by the public, European policy makers have to provide a long-run perspective of a stable EU that guarantees high employment and well-being. To achieve this, the shortcomings of the EMU have to be addressed and corrected (see Aiginger et al 2012 for a deeper discussion)

In particular, short-term stabilization requires improving the double track of insurance and adjustment, which has characterized euro zone crisis resolution for the last couple of years. On the insurance side, central institutions need to counterbalance the different business cycle positions of member states On the adjustment side, symmetrical and joint efforts are necessary to facilitate a return to a stable growth path. These measures should create incentives for deficit countries to carry through the painful adjustments by minimizing their social and economic implications In this context, reducing interest rates is, among others, an important ingredient as it gives deficit countries more time to implement necessary reforms in order to re-gain competitiveness and to reduce imbalances without running the risk of being rapped in a deflationary spiral

The beefed up insurance adjustment strategy implies a greater extent of burden-sharing, at least temporarily Member states would have to increase their contribution to the ESM and extend their joint guarantees for public debt. Surplus countries would have to brace themselves for potential financial losses. Reducing imbalances requires higher demand in surplus countries Stimulating growth at national and EU level would necessitate changes in the structure of taxes and expenditures.

Most of these measures can be taken without any changes in the treaties of the EU Policy innovations, such as (i) stimulating demand in surplus countries (ii) technology transfers so as to boost productivity in deficit countries (iii) reducing income inequalities so as to stimulate consumption (iv) accepting divergent target inflation rates still leave some policy space for this strategy However, the mood in surplus countries is very much opposed to supporting deficit countries—either by transfers or by stimulating their own domestic demand

3.1 2 Long-Run Measures

A long-run strategy needs to address the flaws of European integration. Even more importantly, it has to build on a plan for Europe to be convincing and get the necessary political support This plan should be in line with a new development strategy which enables a transition to high levels of employment, social inclusion and environmental sustainability, taking into account the dynamics of an ageing society in a globalised world

The elements of a long-run strategy follow directly from the problems inherent in the present design, which have surfaced in the last decade Key elements in this context are the cases for a banking union and tighter fiscal interaction among euro zone countries in the longer term (consider Thillaye 2013 for further details).

3 1.3 Banking Union

Before the global financial crisis burst, the sub-optimality of the common currency union was beyond perception Financial institutions benefited from free capital mobility and operated with ease across countries Hence credit went where it was in demand and portfolios became increasingly more internationally diversified The smooth functioning of the interbank market supported this development There were side effects, though, such as large capital flows within the euro area and the associated build-up of public and private-sector imbalances But, by and large, the financial architecture based on a single currency and common market, and national-based financial safety nets, bank supervision and regulation seemed to keep the euro zone on the path of long run growth

However, the crisis uncovered the tensions inherent in this sub-optimal institutional arrangement Private borrowing costs rose with the sovereign's, imparting pro-cyclicality and impairing monetary transmission and hence the effectiveness of monetary policy This amplified financial fragmentation and financial market volatility, and thus exacerbated the economic downturn This adverse dynamic resulted from the inability to control local interest-rate conditions, and an architecture that strengthened the link between a country's banking, real and public sectors. In hindsight, it is evident that, in good times, banks grew in many places to a scale that overwhelmed national supervisory capacities, while in bad times, they overwhelmed national fiscal resources This fact results directly from the highly pro-cyclical behaviour of bank balance sheet adjustment (Adrian Shin 2008). It is also clear that, in the existing architecture, if a sovereign's finances are sound, then its backstop for its banks is credible But if they are weak, then its banks are perceived as vulnerable as well and, therefore, face higher funding costs (see for instance Acharya et al. 2012)

In this environment, a banking union comprising a central regulator and an EMU-wide resolution fund could break the link between the twin exposure to indebtedness of banks and sovereigns Furthermore, it prevents the fragmentation of financial markets and deposit flight from one part of the currency union to another A single regulatory and supervisory framework would help contain systemic risks and curb the moral hazard attendant with common backstops and safety nets In this context a single resolution mechanism with adequate backstops would isolate and address elements of financial sector weakness The common safety net would help prevent retail deposit runs that could overwhelm the capacity of any one country.

3 1 4 Tighter Fiscal Rules

The European debt crisis has depicted how sovereigns can be repudiated from financial market access altogether, and how public and private borrowing costs can differ widely within the union, despite a common monetary policy. It has also shown the extent to which contagion can set in, with deep recessions in some mem-

ber states with severe spillover effects on to the rest of the union members While it was recognized that countries joining the euro area had significant structural differences, the launch of the common currency was expected to create the conditions for further real convergence among member countries. The benefits of the single market were to be reinforced by growing trade and financial links. This was considered as essential for making economies more similar and subject to more common shocks over time (Frankel/Rose 1998) At its inception, it was thought that the euro area would at most face moderate country-specific shocks, made rare by a common commitment to fiscal soundness in an environment which was characterized by an economic moderation (see for instance Galí/Gambetti 2009) In fact, not only have there been larger and more frequent idiosyncratic shocks but also more idiosyncratic policies (e g., Greece) For instance, many countries did not build sufficient fiscal buffers in good times, for which Spain in fact is an exception. Moreover, spillovers from idiosyncratic policies were not sufficiently taken into account Worse, the coupling of domestic fiscal and banking risks, together with extensive financial linkages across countries, turned country-specific shocks into systemic ones, as there were no existing mechanisms to deal with such shocks.

In this context, the assumption that these cross-country shocks would be best addressed through a common monetary policy turned out to be deceptive Instead, country-specific shocks have remained frequent and substantial (Pisani-Ferry 2012)

The consequences of these shocks have been compounded by weak fiscal policies in some countries Moreover, the European fiscal governance framework was too loosely implemented to ensure the appropriate management of public finances over the cycle. Government failure and political interference became especially evident when the Council decided to hold the Stability and Growth and Pact's procedure in abeyance for the two largest countries of the euro area in 2003.

3.1 4 1 Improving the Economic Resilience by Fiscal Integration

Although the first step to dealing with country-level fiscal problems must be larger national fiscal buffers, the size of shocks and their capacity to freeze up markets suggest a role for a euro zone wide insurance mechanism In dealing with idiosyncratic as well as common shocks, fiscal integration can be that mechanism which could guarantee that shocks are contained—of course providing an ex ante framework for enforced fiscal discipline and temporary transfers and hence for more policy certainty. Far from undermining market discipline, insurance with strict ex ante rules could be an improvement over the current situation, where the credibility of the no bailout clause has been undermined by ad hoc responses to systemic stress[19].

[19] In this context, a focus on policy rules rather than on discretionary measures is also to be preferred in order to contain the inconsistency of (optimal) policy plans (Kydland/Prescott 1977).

Yet, even if market discipline could be an important complementary element to prevent future crises, it will take time to establish its role in tranquil times In the interim, fiscal union will also mean stronger enforcement powers by the centre

3 1 4 2 Elements to Consider for a Fiscal Union

The ultimate scope and shape of the fiscal union will remain a matter of social and political preferences. But to address the gaps identified above, four elements seem essential: (i) instruments of debt mutualisation, such as euro area bonds up to a certain limit—they are likely to create a large and liquid market of low-risk assets by which they guarantee the sustainability of financing cost for public investment; (ii) a lender of last resort for governments prevents self-fulfilling liquidity crises in EMU member states; (iii) a limited transfer of fiscal sovereignty to a central authority reduces the possibility of free-riding by individual member states; (iv) a debt restructuring scheme for insolvent governments clarifies the course of action and the risks for investors ex-ante, and finally (v) an automatic transfer regime that could cushion asymmetric shocks and smooth business cycle divergences within the euro zone countries

3.1.5 Attenuating the Fiscal/Financial Nexus

In the aftermath of the crisis, restoring confidence is and remains the top priority. The "longer uncertainty is allowed to linger, the greater the damage to confidence" (Eichengreen 2010) In this vein, we should not go on with business as usual as long as the roots of the financial and European debt crisis have not yet been eliminated of which the fiscal/financial nexus comprises a key element.

Government support for the banking system in times of financial distress has characterized an important feature of the environment in which financial markets match savings with investment for a long time (Alessandri/Haldane 2011). The prospect of financial support from either the central bank or the fiscal authority supports the resilience of the financial system towards adverse shocks, however, it may also promote excessive risk-taking if not restrained by prudential policy and adequate regulatory standards. The last decade witnessed an unprecedented upswing in capital flows This development was particularly strong within euro area countries, in part due to the politically-motivated integration of financial markets of these countries. As a consequence of that, bank balance sheets reached a size to challenge the supportive capacities of several governments to guarantee credible fiscal backing. In turn, this development undermined the ability of some euro area member states to credibly backstop their national banking systems by purely fiscal means and gave rise to the fiscal/financial nexus linking the solvency of banks and that of the corresponding sovereign.

Consider the case in which a country refrains from the possibility of financial repression and capital controls At some point this country will be trapped in a situa-

tion where it simply cannot credibly backstop its own financial system any longer. Indeed, a country reliant mainly on its own fiscal resources will likely sacrifice financial integration as well as financial stability—which is what we currently observe in the euro area, because markets will then assess financial risks along national fiscal and financial lines.

The financial/fiscal nexus comprises the factor that lies at the centre of the European debt crisis. In essence it provides a useful theoretical outline for understanding the unexpected long term consequences of rapid financial market growth, as well as the reforms needed to promote the resilience of the financial system while also preserving financial market integration. This fact motivates the proposal of a banking union and tighter fiscal ties for countries in a currency union. One has to be aware of the fact that once financial market integration within a union arrives at an elevated level, one cannot sustain all of the following three at the same time: (i) a resilient financial system, (ii) a pronounced degree of financial integration, and (iii) independent national fiscal policies. To clarify the point, consider the following situation: When the resources of the fiscal authority are limited relative to the potential problems at hand and the option of unlimited monetary financing from the central bank is unavailable, then the credibility of government support quickly turns questionable. Once a credibility deficit emerged, it renders the financial system less resilient, thereby pushing upward pressure on the probability of a crisis occurring, which would make official intervention necessary. This, however, further impairs national governments borrowing conditions, which in turn further promotes the fragility of the financial sector, and so on. If, at some point, a government is trapped in a downward spiral of this form and decides to intervene, then this intervention has two adverse effects that both offset any stabilization efforts. First of all, financial markets are likely to revise downward their assessments of government debt sustainability. This in turn creates losses for sovereign debt holders, in particular banks as they are usually the primary debt holders. Second, market actors appreciate that the government is left with even fewer resources to implement further stabilization measures that might become necessary in the future (limited fiscal space). The result may be a continuation and even worsening of the initial crisis, in an accelerating downward spiral. This "vicious circle" has been at work in several countries during the current euro crisis.

There is increasing empirical evidence for this conjecture. Demirgüç-Kunt and Huizinga (2010) use a sample of banks involving many countries over 2007–08 and show that bank stock prices fall and CDS prices rise when the fiscal balance worsens. They interpret this as evidence which shows that fiscal weakness creates expectations of greater losses for bank shareholders and creditors. As De Grauwe (2012), has underlined, one factor making the fiscal/financial downward spiral especially virulent in the euro area is the unavailability of monetary financing at the member-state level that might allow countries with their own central banks to avoid insolvency. Analogously, sovereign debt crises can be self-fulfilling as borrowing rates rise in expectation of default, thereby making default more likely. In principle,

such multiple equilibria can exist even at low levels of debt. A very high interest rate can make even a low level of debt unsustainable and thus be self fulfilling. But multiple equilibria are more likely when debt is high; then, even a small increase in the interest rate can move the government from solvency to insolvency. The potential for multiple equilibria is also greater when the maturity of the debt is short and rollover needs are greater: if most of the debt has to be rolled over soon, it is more likely that current investors will worry about future rollovers, leading them to be reluctant to roll over today; or, looked at another way, debt maturity and the deficit's size determine the pace and severity of the crisis. Because of the financial-fiscal interactions just described, however, the range of conditions in which self-fulfilling and mutually reinforcing banking and debt crises are possible may be quite broad. Furthermore, a banking crisis, by forcing the government to issue more debt on the market, will speed the pass-through of market default expectations to the government's interest bill. In the euro area, the absence of monetary financing for government deficits may raise the chances of self-fulfilling debt crises.

3.1.6 Policy Steps Taken in Response to the Crisis

Addressing gaps in EMU architecture could help prevent crises of such magnitude in the future, while at the same time supporting current crisis resolution endeavours. Euro area countries are already acting to correct one deficiency in the Maastricht treaty—the vesting of micro- and macro-prudential policy with national authorities. As a consequence of the crisis, fiscal and economic governance has already been strengthened in the form of including the "Six-Pack" legislation, "Two-Pack" regulation and the Fiscal Compact. In addition, the European Commission and the President of the Council were asked to identify proposals "to develop a specific and time-bound roadmap toward a genuine Economic and Monetary Union", taking into account the possibility of tighter fiscal ties, in order to strengthen the irreversibility of the Economic and Monetary Union. However, the sheer size of bank balance sheets suggests that the euro area must also confront the financial/fiscal trilemma (Obstfeld 2013): the costs of banking rescues may now go beyond national fiscal capacities. Thus, plans to reform the euro zone architecture must combine centralized financial sector supervision with some centralized fiscal backstop to deploy deposit insurance and finance bank resolution.

The idea of greater fiscal integration is, however, not a new concept: it was already developed in the 1970s in the famous MacDougall report (European Commission 1977). Yet, political backing for a clear roadmap remains elusive, with views on the shape of a fiscal union differing widely among euro area member countries. Some argue in favour of greater solidarity between member states, while others point to the need to strengthen national fiscal policies as a first priority to prevent further stress. There is also a concern that any debt mutualisation would lead to moral hazard, sapping members' motivation to undertake prudent domestic policies in the future.

3.1.7 Country Coverage

A banking and a fiscal union are key elements to consider for a new economic governance structure for the euro area, given the financial fragmentation, stresses, high public sector debt levels and deposit flight from one part of the currency union to another. While tighter financial and fiscal ties are desirable, they raise more complex issues, not least the interaction of multiple central banks and sovereigns. Such interaction has consequences for the lender of last resort function and the relationship between monetary, fiscal and, in particular, macroprudential policies. Potentially different access to backstops or safety nets, such as the ESM that is currently available only to euro area members and not to EU member countries, adds to the complexities. It is, therefore, prudent to proceed first with a euro-area banking union, albeit with an option to opt in for non-euro-area EU members and with adequate governance safeguards for those who wish to stay out.

Risk-sharing is an important element in this strategy. Debt mutualisation would probably raise the borrowing costs of surplus countries, but as the introduction of EMU shows, the upward shift for surplus countries might be small. A banking union and an automatic fiscal stabilization mechanism might turn into a regime of permanent redistribution from creditor to debtor countries if imbalances are not contained.

Such a strategy faces formidable political challenges. Opinion surveys show that the majority of European citizens are fiercely opposed to any form of fiscal centralization. A common perspective must therefore reconcile the conflicting demands for more democracy and more sovereignty, which currently prevail across Europe. Ignoring these political dynamics will only encourage euro scepticism and ultimately lead to Europe's undoing.

The above stated proposals concerning a different governance structure are to improve the economic resilience against future crisis. They will hardly have an impact on the existing debt overhang, which currently poses the biggest drag on the economic recovery in Europe. Sticking purely to crisis resolution measures on the country level could bring about a deterioration of the situation in the periphery in the form of debt deflation (*Fisher* 1933). This could result in an episode of prolonged stagnation. In contrast to this, a policy based on the mutualisation of the stock of existing debt could again blur the risk environment across European countries—similar as it was the case with the introduction of the euro as the common currency—which could reduce peripheral countries' incentives to restore competitiveness and fiscal sustainability. Hence, as a consequence of these tradeoffs, dealing with the debt overhang will remain a delicate policy issue.

3.2 A New Strategy for Southern Europe

3.2.1 Disequilibria Limit Growth and Increase Uncertainty

European growth is suffering from large disequilibria revealed and aggravated by the financial crisis. Economic output has decreased by 10.3% (2008/2012) from pre-crisis level in southern Europe, figures matching or surpassing decline in the Great Depression of the twenties of the last century. Unemployment increased to 21.7% and debt to GDP to 122.2% (2012). Periphery countries before the crisis had experienced a bumpy but all in all successful catching up in GDP per head with Europe, but had missed continuously to upgrade the structure and capabilities in the nineties as emerging economies and new member countries took over their role as low-cost producers. They furthermore lost price competitiveness since wages increased, while productivity did not catch up, thus losing half of its manufacturing sector and accruing large deficits in current accounts.

After the crisis the periphery countries reluctantly and pressed by the creditor countries ("troika") went for internal devaluation, lowering costs and reducing employment. These strategies succeeded insofar as relative unit labour costs are now back to the level in 2000 as compared to most European countries (not relative to Germany which went for a low-cost strategy itself) and current accounts are balanced. But GDP still did not recover up to 2013, and unemployment and debt are at unsustainable levels without a sign to decline. In this situation a new economic strategy is necessary. This new strategy could contain ten elements according to Aiginger/Firgo/Huber (2013) and has to have three actors.

3.2.2 Ten Pillars of a Reform Strategy

A Proactive Agenda is Needed

Today the periphery countries are completely stuck in reverse gear. The overarching goal is to increase the stock of savings and to cut deficits. There is no sign of a proactive component, no vision about what should be done to develop new industries and services, to create and support competitive firms and help clusters to grow.

Strategies have to be Empirical Based, and Nationally "Owned"

The strategy applied, has to be nationally owned, this means that the government of a country develops a strategy in the interest of its own country, and not because an outside organisation demands the reforms. A strategy developed by international experts is often more heavily opposed than a home grown strategy (and it is different from a nationally developed strategy). This does not mean that the strategy can ignore some limits (e.g., in public debt), but within these limits there is room for manoeuvre.

A Strategy Starts from a Vision
Where a Country Wants to be in 2030

Based on the analysis of its present status, the first step for planning reforms should be to develop a vision where the country wants to be in 20 years, after the consolidation process. The vision essentially has to come from the country itself, taking into account the goals of Europe, such as those outlined in Europe 2020, and also the challenges of globalisation, new technologies, welfare reforms, climate change and ageing

An Active Component in the Consolidation Period
is Necessary and Feasible

It is essential that short-run measures are designed with the perspective of longer run goals and the position a country will take in the globalising world of tomorrow Public expenditure should be shifted from administrative expenditure (preventing activities and business starts) to growth promoting expenditure; taxes should be shifted from those specifically negative for growth to those less negative for growth and employment

To Complement "Internal" Devaluation
by Boosting Productivity

It is important for European periphery countries, which have lost competitiveness, to undergo some internal devaluation (making production cheaper as to boost exports). But it is not sufficient to cut wages, specifically if the low increase in productivity was the reason for rising unit labour costs The forward-looking part involves reforming administration, increasing tax compliance, and using the European Structural Funds more intensively and more effectively

Help from Surplus Countries
Cannot Only be Financial Transfers

The periphery has regained competitiveness to the level of 2000 relative to all European partners with the exception of Germany. Disequilibria have to be eliminated from both sides, especially if one country applies a low cost strategy—usually not fitting for a country with high income in the past

Reform of Innovation System, Education, Regulation

The southern periphery countries suffer from closed shops, low product market competition, regulated labour markets with insider/outsider problems, large administrative costs, and an abundance of rules and restrictions for doing business Reducing these barriers would have a similar effect to internal devaluations

Structural funds were underused by periphery countries due to administrative failures Funds were channelled into large tangible infrastructure such as highways

and airports The funds should be fully exploited and rechanneled into industrial zones, business start-ups, and training and retraining. There is still the danger that the pro-active component of the June meeting ("130 bn €"—growth compact) is once again used for large projects, which have a low impact on production and exports.

The Southern periphery countries have low expenditure on R&D, and consequently a low output for innovation. Innovations in very small firms are reported, but these firms do not grow into medium sized firms.

Closing the Export Deficit
and Changing Attitudes to Globalisation

It is incredibly surprising that the southern periphery countries have export shares 10 percentage points lower than landlocked countries and that globalisation is seen as a threat and not as an opportunity Historically periphery countries led the way in the globalisation process Other European countries at the periphery have much higher exports in general and, in particular, to non European countries and a positive attitude to globalisation (Ireland, Sweden) The southern European countries could be the bridge between Europe and the dynamic economies in the Black Sea Area, in the Arabic World and North Africa, and (at least Portugal and Spain) to South America and Asia. The existing harbours have the potential to become logistic centres for imports as well as industrial areas for export intensive industries

Upgrading Tourism

Income from tourism is stagnating relative to GDP and receipts are lower per tourist than in other European countries. The southern periphery is losing shares in the world tourism market and makes no use of the chances from an ageing society in Europe, and the opportunities from health tourism

The Periphery Could Become a Centre for Alternative Energy

The economies are still based on the imports from oil, gas and on the use of coal They could, however, become a specific centre for developing alternative technologies, where these are "going down" on their cost curve. The use of solar or wind energy would be much easier in these countries than in most other European countries. Portugal is moving in this direction

3 2.3 Summing Up

Some necessary conditions for restarting growth have been achieved, specifically in Portugal, Spain and Greece Labour costs are back in line with productivity, external deficits closed or at least narrowed But to restart growth new firms have to be established, foreign capital has to be attracted, and capital which has been parked abroad has to return Red tape has to be eliminated, the potential of global markets

and of renewable energy have to be tapped A strategy has to be developed indicating in which industries a competitive advantage is given or can be developed A new industrial policy and inward foreign investment is needed, maybe some industrial zones of the Chinese style are a solution (where not low taxes but less bureaucracy can make Southern Europe more attractive; see Aiginger et al 2012)

3.3 Towards a New Systemic Industrial Policy

The share of manufacturing is declining in Europe, specifically in nominal terms and in the share of employment. This tendency is specifically pronounced in the United Kingdom and France, in the UK the financial sector is now definitely larger than manufacturing, in both countries the current accounts are deeply in the red (now larger than in Southern Europe). In many countries' large firms have become net creditors, investing much less than the cash flow would allow, surplus is used for financial investments At the same time new and innovative firms are credit restrained, since the financial sector shuns risky investments (in the real sector, clandestinely returning to risky financial transactions).

A new industrial policy should not be a mere revival of old industrial policy and specifically it should avoid its past failures It needs to be broader, greener, have less focus on specific firms and be better interlinked with other policies and societal goals [20] The new ideas about a future oriented industrial policy can be best summarised by trying to define a "systemic" policy, and given that industrial and innovation policy are about to merge, at least for developed countries, we could actually call it a "Systemic Industrial and Innovation Policy" (SIIP)

A future-oriented industrial policy has to start from the challenges revealed by globalisation and from the financial crisis. It has to be based on research and education, and needs to merge with innovation policy. It has to encompass small as well as large firms, and promote close ties between firms and universities and cooperation between firms and universities (clusters) The education policy needs to be able to provide equal opportunities at the outset as well as promoting lifelong learning Innovation systems are superior if they actively draw from the common international knowledge pool, thus integrating international researchers and also migrants and newcomers is important The manufacturing sector remains competitive if an economy is open to imports and inward FDI so that it can make use of the division of labour along the value chain. A new industrial and innovation policy fosters competition and grasps the advantages of globalization. An eagerness to understand different cultures, languages and business attitudes are all essential

Summing up, industrial policy has to be systemic in the sense that it is derived from the goals of the society as a whole If the welfare function of a European citizen places a high value on rising incomes, social inclusion (less wage dispersion), regional equilibria, a stable financial system and sustainability, then industrial policy has to promote these goals e.g., by shifting innovation towards social and ecological innovation, while keeping competitiveness and the potential for rising incomes Furthermore, industrial policy should make use of those forces which promote change, and foster higher incomes, such as competition and globalisation Thus a Systemic Industrial Policy is pulled by vision and pushed by competition (see figure 1).

20 See Rodrik (2011), Johnson (2009), Großschädl (2012), Aghion/Boulanger/Cohen (2011), Aiginger (2007, 2012).

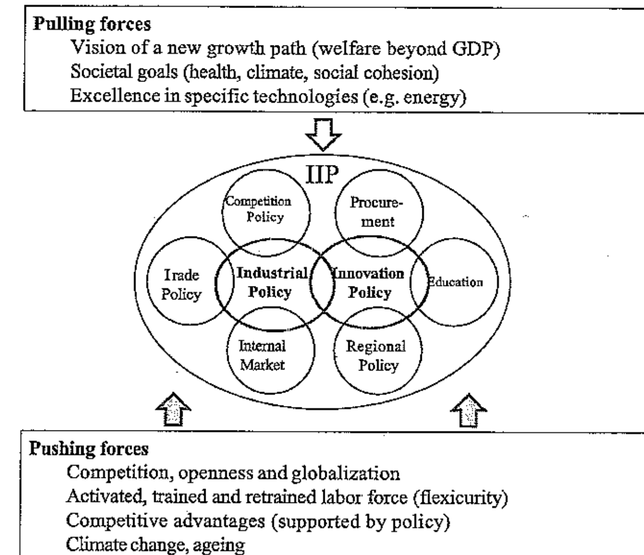

Figure 1: The Systemic Industrial and Innovation Policy (SIIP) in a Nutshell

3.4 Enlargement and Vision of Europe's Position in a Globalised World in 2050

Europe has to solve its internal problems, but should not forget that the world economy is extremely dynamic and globalisation and shifts of economic power goes on. The world will be very different from now in 2050 and Europe can play a role in this world only if it continues to enlarge by inviting its neighbours and by providing a vision of a socioeconomic model which is attractive for countries catching up And let us not forget that Europe always had been successful if it had a great idea, and stagnant if it concentrated on internal problems, national specifics and internal quarrel

The euro Area currently produces 17% of the world economic output. The EU in its current scope[21] has a share in world GDP (at purchasing power parity) of 24% and is the largest region by economic output, slightly ahead of the US. However, the EU is today growing less than the US and China and will be surpassed by the US, China and India up to 2050 Europe's share will plummet to 14% (India is forecast to produce 18%).

However, if Europe would extend to its closer neighbours it could stay well ahead of the US and if it can build a region with its larger neighbourhood it could stay in par with China the largest region Close neighbourhood includes European countries currently not members of the EU (Switzerland, Norway, countries at the Balkan) and North Africa and Black Sea area, a wider neighbourhood would include several post Soviet countries and maybe even Russia. This region would produce 28% of world GDP, the same share as China is forecasted, higher than US (15% plus some percentages since we would have to include Canada and Mexico)

Inviting the neighbours to build a larger European region does not necessary mean membership; it could be special trade contracts Specifically attractive would be a multi-tier cooperation with maybe ten stages, where countries can chose as many as possible with the goals to add new topics of cooperation over time.

Table 4

Shares of Regions in GDP 2010/2050

	2010	2050	2010/2050
	Share in GDP in%[1]		% p.a.[2]
Eurozone	17 4	9 5	1 5
EU -27[3]	23 8	13 8	1 7
EU plus wider neighbours[4]	*30 0*	*28 0*	*2 5*
France	3 4	2 0	1 8
Germany	4 8	2 1	0 9
USA	23 0	15 1	2 0
China	16.1	27 9	4 5
India	6.4	18.0	5.8

[1] 2005 PPPs —[2] Growth of world GDP p.a 3 1% —[3] OECD members —[4] Estimated
S: OECD Economic Outlook No 93—June 2013—Long-term baseline projections

Besides internal reforms in governance and preference for an ample variety of cultures, the concept of a wider Europe needs a vision of the European socioeconomic model Currently several socioeconomic models exist in Europe (Scandinavian, continental, Anglo-Saxon) which share some common features but are divided by others (Aiginger/Guger 2006, 2013).

21 EU-27 resp EU-28

4. Summary: Restarting Growth is Necessary and Feasible

Restarting growth in Europe is a necessity. Economic output as measured by real GDP is 2014 still below its pre-crisis level; according to current forecasts predict that GDP in the euro area will reach its pre-crisis level in 2015, seven years after the start of the Great Recession; In 2014 Output is 8% higher in the US as compared to 2008 and about 60% in China Unemployment has risen to two-digit level in Europe, nearly 50% higher than in 2008.

We have carved out four preconditions—pillars of a strategy—for restarting growth:

- A new strategy for southern Europe which is "owned" by the southern European countries, not formulated by creditor countries or the "troika" The southern countries (and to some extent Italy and France too) should develop a strategy for the competitiveness of the country in 2030. The strategy should build on competitive advantages, on improved capabilities (education, innovation, and institutions). The location of Southern Europe (and also its history) suggests it should built on a revitalised industrial base, an excellent logistic for exports to Mediterranean countries and to distant destinations in the globalised world Quality tourism as well as renewable energies should play an important role. The nationally developed strategy has to be supported and monitored by the European Union. The European Union should increase existing funds but also restructure them to encourage entrepreneurship, new jobs and new firms instead of large infrastructure projects Creditor countries should stimulate domestic demand in line with the beyond-GDP goals of greater inclusiveness (lower unemployment and elimination of low wage sector) and ecological excellence (reducing emissions instead of lobbying for permissive standards, exceptions from emission trading and low energy prices).
- A better European governance should address the deficiencies of the current institutional framework which were exposed in the course of the European debt crisis. The key feature of a new governance structure should be to improve the economic resilience of the member states of the European community. In this respect, tighter fiscal ties and a well formulated macro-prudential policy framework on the European level—possibly in the form of a banking union—are key aspects to be considered. In all the proposals considered, the issue of risk sharing comprises a key element. It is sometimes hypothesised that financial costs would systematically fall on those countries which maintain a stronger tradition of fiscal discipline and a more prudent macro-prudential policy stance However, with a risk-sharing mechanism in place over a sufficiently long period, all current euro area members would benefit from transfers at some point in time.

- A new industrial policy which is systemic insofar as it combines innovation and education with openness and competition. A new industrial policy should focus on energy efficiency and renewables and develop and promote exports low emission technologies. The European Steel industry should foster projects for ultra low carbon technologies, a strategy to make Europe technology leader here should be a priority in European research programs, while at the same time a revitalized emission trading increase the cost incentive to switch to new technology and higher energy efficiency. Reducing the gap in R&D is more important and forward looking than reducing energy prices and complaining that the climate goals will not be reached
- An enlargement strategy should offer neighbour cooperation, association agreements and the perspective of membership. A Europe constrained to the current euro zone will lose shares in world output and markets and is predicted to have a share in world GDP of less than 10% in 2050. Together with its neighbour countries Europe is a region growing faster than the US and will have a world market share of about one third, approximately par with China. Extending the borders of Europe and extending invitations to neighbours need on the one hand a mere coherent and stable Europe, and on the other hand a vision of a common European socioeconomic model which is different from the US model and the Asian model, but in line with preferences of people with higher incomes and with concepts of beyond GDP

Of course these four strategy elements are not sufficient for restarting growth. There are many more elements of a new growth strategy. Public expenditures should be restructured according to the growth and employment content e g., more should be spent on education and innovation, less on bureaucracy, military and for subsidies. Taxes should be lowered in general and specifically taxes on labour. Taxes evasion should be fought; taxes on property and public bad can be increased. Taxes on the real sector should be reduced; those on short-run financial transactions (including those with tax shelters and offshore firms) should be increased

Restarting growth is necessary and feasible. But new growth should not be more of the same and not achieved by cost cutting. The new growth path should be in line with a model reducing emissions significantly (absolute decoupling); It should be in line with the EU 2050 energy roadmap, implying a strong increase in energy efficiency and a rising share of renewable, as to reduce carbon dioxide by 80%. It should also reduce unemployment and income differences. A socioeconomic development path for an open and enlarging Europe will be in line with the preference of people within and outside the current European Union. It needs beyond GDP goals as yardstick and a new definition of competitiveness. Applying these new yardsticks, the differences in performance between Europe and the US are smaller, and restarting growth in Europe is easier and more sustainable

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