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Overcoming the Euro Crisis and Prospects for a Political Union

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Summary: The euro crisis and a new debate about immigration in Europe have undermined support for the EU while the unsolved Greek debt problems as well as the ECB's quantitative easing policy have raised new crucial policy issues. It is necessary to identify the key issues of Eurozone stabilization and to clarify the economic benefits from monetary integration. As regards the economic welfare analysis of the euro, the new model presented shows the benefits of the euro's reserve currency position, namely in the framework of a neoclassical growth model with seigniorage based on international reserve holdings. Discounted benefits are about 10 000 € per capita in a stable Euro area. Thus the benefits are bigger than often considered, at the same time one may raise the question of whether the existing institutional setting of the Eurozone is sufficient for achieving long-term stability and prosperity. As regards the envisaged third rescue package for Greece it is emphasized that a haircut of public creditors along with adoption of a Greek capital levy plus privatization efforts are required to achieve debt sustainability and growth. The traditional interpretation of subsidiarity in the EU is found to be misleading and the vertical division of politics is destabilizing.

Zusammenfassung: Die Eurokrise und die neue Debatte über Migration in Europa haben zu einem Vertrauensverlust in die EU geführt. Zudem hat die ungelöste Schuldenproblematik Griechenlands und die quantitative Lockerungspolitik der EZB neue Politikthemen hervorgebracht. Es ist notwendig die Schlüsselprobleme der Stabilisierung der Eurozone zu identifizieren und hervorzuheben, welche ökonomischen Vorteile eine tiefgehende Europäische Integration hervorbringt. Das neue hier präsentierte Modell zeigt, betreffend der ökonomischen Wohlfahrtsanalyse des Euros, die Vorteile auf, die der Euro als Reservewährung mit sich bringt. Dies wird in einem neoklassischen Modell mit Seigniorage auf der Grundlage internationaler Reservewährungshaltung aufgezeigt. Die diskontierten Vorteile beziffern sich in einer stabilen Eurozone auf ungefähr 10.000 Euro pro Kopf. Somit sind die Vorteile größer als häufig in der Literatur angenommen. Gleichzeitig stellt sich dabei die Frage, ob das existierende institutionelle Gefüge ausreichend ist, um langfristige Stabilität und Wohlstand in der Eurozone zu erreichen. Mit Blick auf das angedachte dritte Rettungspaket für Griechenland bringen ein Schuldenschnitt, eine Vermögensabgabe und Privatisierungsanstrengungen langfristige Schuldentragfähigkeit und Wachstum. Zudem zeigt das Modell, dass die traditionelle Interpretation des Subsidiaritätsprinzips in der EU zum Teil widersprüchlich ist und die vertikale Aufteilung der Politik destabilisierend wirkt.

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1. Introduction

European integration stands for decades of enlargement and deepening which have generated considerable economic benefits for EU member countries. More than 50 years of successful EU integration have thus far been achieved (Tilly and Welfens and Heise 2007) where EU-deepening and EU-widening have been part and parcel of integration dynamics. The euro crisis has brought not only a crisis for the 17 euro area countries in 2010-2013 but has also undermined the political support for European integration and EU institutions, respectively. The Commission survey (European Comission 2013) indicates a marked long-term decline of the share of people supporting the EU. Similarly, the PEW Center Survey (PEW 2013) has shown a considerable decline in support for the EU project.

There is no surprise that support for EU integration has weakened in some EU crisis countries. With an expected economic upswing in the medium term – partly supported by the ECB's quantitative easing policy that started in March 2015 -, political support for the EU is likely to increase once again. It is, however, additionally worrying that political support for the EU integration has also weakened in France and the Netherlands where the referenda on the envisaged new constitution failed in 2005. In the Netherlands, a more EU-sceptical attitude has become visible in 2013/2014 where the euro crisis, immigration issues and other aspects of EU integration play a role.

While Ireland has shown a strong recovery in 2014/2015 and Spain has achieved considerable growth in 2015, Portugal's economic recovery is more modest; Cyprus has phased out capital controls in 2015, however, Greece was then still facing a major crisis. After the Brussels summit of July 12, 2015, there were prospects for a third rescue package for Greece. The surprising fact is that the IMF adjustment programme has not really worked in the years 2010-2014: For a country which had faced a current account deficit ratio of -15% immediately after the Great Recession 2008/09, there are clearly more challenges than to sharply reduce the incredible deficit-GDP ratio of -15.5% in 2009 – representing a massive political fraud that went unnoticed for many months (only after the election that year did the new socialist PASOK government uncover the massive deficit – the European Commission had no idea of this dramatic problem which indicates that the political centre of the EU is rather weak). A massive cut in government consumption was to follow that contributed to lower output, however, the investment-GDP ratio also fell enormously, namely from 25% in 2007 to about 12% in 2014 – obviously largely due to firms losing access to bank credit either because interest rates were following the enormously high Greek bond interest rate or because Greek banks, facing rising exposure to non-performing loans, had cut the supply of loans for most SMEs. Moreover, the haircut on private creditors in 2012 reduces the equity capital of banks and almost € 11 bill. in unused recapitalization funds of the EFSF imply a large gap of credit to the private sector that partly could explain the rather weak performance of Greece.

Section 2 takes at look at the Greek economic crisis and GREXIT aspects while section 3 puts the focus on a new neoclassical growth model with international seigniorage that explains the benefits of a reserve currency in the context of a growing world economy. Section 4 is about broader reform issues and section 5 looks at broader perspectives. The Eurozone is facing some improvements in terms of reforms in some member countries. A

key question is which institutions would have been necessary that the Greek deficit fraud of 2009 would not have been possible so that the country would have faced a deficit-GDP ratio of possibly 6% and not 15.5% - and no Greek drama would have occurred. How can one achieve better governance?

2. The Greek Economic Crisis 2015 and GREXIT Aspects

As early new elections in Greece in January 2015 have brought a new coalition government headed by the left-wing SYRIZA premier, Alexis Tsipras, the Eurozone was facing a new stage in the Greek crisis as the new government does not want to continue the traditional rescue approach that had involved the “Troika” (European Commission, IMF, ECB) with a monitoring function in programme countries that had obtained rescue funding in the Eurozone; the Greek government has declared that it will seek a second debt cut (as 80% of Greek debt is indirectly in the hands of the IMF, the ECB and – most of it – the euro partner countries, such a haircut would imply losses for taxpayers in other euro countries and hence effectively higher transfers beyond the more than 3% of GDP that the Greece already receives). The new Greek government has made some reform promises and will obtain the remaining rescue funds from a third adjustment programme – based on the Brussels summit of the euro countries on July 11 and 12, 2015. The IMF is expected to stay on board – as the German government has emphasized - and the Greek government will get about € 85 bill. in new loans; at the same time reforms in the field of pension reforms, taxation (VAT rates) and modernization of public administration are required, including the creation of a national statistical office that is independent of the political system. € 50 bill. is expected as privatization that will be organized as a special fund from which ½ of revenues will be used for recapitalization of Greek banks – facing sharp problems in the context of a very long recession; ¼ is for debt repayment and ¼ for public investment.

The Greek referendum of July 5, 2015, has resulted in the refusal of the latest offer of the creditor euro countries in the context of an extension of the second rescue package. This was to be anticipated after five years of recession. Greece has experienced a real income decline of 25% in 2010-2014, a slight increase of real income occurred in the third quarter of 2014. However, anticipation of the victory of the left-wing SYRIZA party in the then upcoming elections brought down investment dynamics. Indeed with the Tsipras-led coalition government, established after early elections in January 2015, the investment GDP ratio has further declined. From 25% in 2007 it has reduced to about 12% in 2014 which is a drastic decline. 2015 will witness further reduction of the investment-GDP ratio and of the real GDP. The unemployment rate is also very high – close to 30% in mid-2015. Problems with the banking system will put further pressure on the real economy. The Tsipras government left the negotiation table in Brussels on June 25 and it effectively walked away from some € 17 billion which the country could have obtained in the second adjustment programme. The ESM is expected to give new loans to Greece so that a third rescue package would be realized – based on the Eurozone summit in Brussels on July 11-12, 2015; this will be possible only if the Greek government adopts more reforms.

Alexis Tsipras has argued that the referendum of July 5 – with 61% Greek vote No to the euro partner countries'/the Institutions' proposals - will bring EU integration back to more political cooperation and an approach which would place less emphasis on the role of rules: This, however, is wishful thinking based on an inadequate analysis and similar to the fallacious hypothesis of Mr. Varoufakis, the resigned Greek Minister of Finance, who had argued that Greece would be like Italy, Spain and Portugal. However, the reaction of financial markets with regard to these countries' interest rates on June 25 and 26 – after the collapse of the talks between Greece and the Eurozone partners – has been very small, so that the Varoufakis hypothesis is not valid.

The creditor countries of the Eurozone negotiated with Greece on June 24 without offering any debt haircut; however, this was not convincing in a situation in which the German government had declared that cooperation with Greece would be based on the involvement of the IMF; the IMF, in turn, had already indicated in a report on Greece in late June that a haircut on Greek debt would be needed to achieve sustainable debt-GDP ratios, which is the basis to keeping the IMF on board. The IMF (2015) report, *Greece. Preliminary Draft Debt Sustainability Analysis*, was published on June 26, however the findings were certainly available a few days in advance for all EU member countries. If all IMF member countries knew about a week before June 26 that there is no debt sustainability, why did the offer of the euro partner countries/the Institutions not suggest at least a small conditional haircut on Greek debt? This strategic mistake fuelled – one could argue - the large No majority of the Greek referendum. The fact that the Maastricht Treaty has a 'no bail-out' clause does not exclude the possibility that a technical approach to a haircut could be created (there are, however, also national laws, e.g. in Germany, that make a haircut difficult to adopt); certainly with a strategy to make sure that, from the creditors' perspective, the remaining debt is 'safer'.

- The IMF itself could offer a conditional haircut. As the IMF's stake is about € 20 bill., one may argue that a haircut of € 10 bill. might be considered - this could be split into two halves so that some conditionality can be attached.
- The euro countries could decide to transform part of the EFSF loans to Greece into a marketable product that would have a market price below 100%. Under very strict conditions, the Greek government could obtain the right to buy back part of this debt at a market price. A formula could be, for example, that for every € 50 bill. privatization there would be a parallel effective debt reduction, Greece must privatize the same amount of government assets, namely in an approach that involves the EBRD, which has broad experience in privatization.
- Greece was facing the problem of a required repayment to the ECB of € 3.5 bill. on July 20, 2015. As regards Emergency Liquidity Assistance funding for Greek banks the European Central Bank was in a critical position, namely that it can give a green light for loans of the national central bank vis-à-vis commercial banks in the country, however, the green light for giving extra liquidity to Greek banks is based on the assumption that the banks have a liquidity problem but are still solvent. Here there is a crucial problem since the potential bankruptcy of Greece could translate into the bankruptcy of the major banks. In mid-2015 more than 1/3rd of the major banks' equity capital in Greece consisted of expected tax refunds from government, but if government is bankrupt, then the value of expected tax refunds will be zero. With the equity capital of banks falling dramatically, the four main Greek banks were likely to be bankrupt within a few days – the ECB in its role as a prudential

supervisor would have closed the big banks and a strong economic collapse would follow in 2015/2016. This perspective motivated the Tsipras government to perform a U-turn after the referendum.

The natural starting point of Eurozone countries/the Institutions in new negotiations with Greece should be to focus on structural reforms, institution building and the issue of debt sustainability: Here, Greece itself has not delivered the promised privatization revenues; Greek government assets were estimated to be more than € 350 bill. in a 2010 IMF Report (Dec. 2010), however, by early 2015, only about 1% had been privatized.

A haircut of € 100 billion for Greece would be a burden to the taxpayer of about 1% of GDP - here assuming that only public creditors are involved. However, an adequate deal would raise the GDP of the Eurozone by at least 0.1% per year, as Greek instability would be removed, so that after a decade, taxpayers' costs would be close to zero. The Greek problems could be solved, however, with Tsipras government cooperation is difficult. It cannot be excluded that Greece will, in the end, leave the Eurozone and massive chaos would emerge in Greece thereafter. The case of Greece shows that a country that does not manage its public debt in a responsible way could experience a massive economic decline and political instability.

The Franco-German leadership, in terms of the management of the Greek crisis, has been rather weak in some points. There was no realistic strategy for stabilizing Greece within a few years. The IMF's forecasts of fast economic recovery in Greece have turned out to be much too optimistic – and thus the disappointment both in Greece and in the euro partner countries was considerable in the second half the crisis period 2010-2015. The key to economic recovery in Greece is higher investment and this in turn requires political stability and a consistent economic policy as well as a stable banking system. The investment-GDP ratio was 27% in 2007, but only about 11% in mid-2015 and it is clear that without rising investment no economic recovery and growth, respectively, can be achieved – and not debt sustainability. Without a haircut on Greek debt through sovereign creditors Greece can neither get access to the capital market nor will interest rates for Greek firms fall below the interest rate on Greek bonds that stood at 20-30% in early 2015; for firms in an environment of slight deflation such interest rates are a massive barrier to investment and hence one cannot expect sustained output growth with a haircut on Greek debt – the latter was broadly refuted by the German government although it had argued that it wants to maintain the IMF on board for a third program (and the IMF had emphasized the need for a haircut). Thus there are strong contradictions.

Given the Maastricht Treaty and its no-bailout-clause, it is clear that Germany – and other euro partner countries – cannot easily give the green light for a haircut which impose losses on taxpayers; from a German perspective the natural starting point for a haircut is represented by the first bilateral rescue package which was organized through the state-owned bank KfW: the federal government gave guarantees for the Greek exposure of this bank. As the first rescue package had been € 110 bill. for all partners of Greece, a haircut of € 50-60 bill. might be possible. In addition to this, one may add a capital/wealth levy of 5% on net wealth that might generate € 20-25 bill. in Greece; such a wealth levy would indeed be adequate since a haircut on public creditors requires complementary Greek measures to achieve a lower debt and the political economy of a haircut within the Eurozone suggests making it clear that the price of excessive deficit/debt policy for whatever country should ignore the Maastricht Treaty will, in the end, be high. With

additional privatization revenues and debt-for-equity swaps, respectively – mainly for renewable energy projects which could contribute to generating export revenues – the overall reduction of Greek debt could be around € 120 bill. (€ 25 bill. from a wealth levy in Greece, € 50 bill. in public creditor haircut and € 55 bill. in debt-equity swaps; Greek public asset value exceeds € 350 bill. according to the IMF, 2010) so that by the end of 2016 the debt-GDP ratio could be close to 110%. This would, in combination with structural reforms, be a way for Greece to regain access to capital markets and to achieve sustained economic growth again. It is noteworthy that the Deutsche Bundesbank (2014) in its Monthly Report of January 2014 has presented some general reflections on the potential role of a capital levy as an one-off policy option to reduce sovereign debt in countries with critically high debt-GDP ratios; indeed, the Bundesbank lists a number of complementary aspects that should be carefully considered, for example the need to implement structural reforms and to have a clear message that the capital levy is an exceptional policy measure – and the levy should be imposed fairly quickly since otherwise the wealthy will be able to evade the capital levy. The conjecture of the German Ministry of Finance, emphasized in the context of the Brussels summit of July 11-12, 2015, that a haircut on Greek debt would be possible only in the context of Greece leaving the Eurozone is inadequate.

If Greece can return to economic growth rather quickly, there will also be a benefit for the Eurozone in the form of higher output growth. This in turn will amount to effectively neutralizing the costs of a Greek haircut on the side of public creditors: higher tax revenues and higher employment in the whole Eurozone can be expected.

There are crucial implications for the governance of the euro area:

- Without a debt brake rule enshrined in national constitutions, the debt dynamics can hardly be controlled. Hence, if the economic role of the supranational government is to increase in the EU such constitutional hardening of the rules will be required – if not, then the Eurozone will one day face the type of regional over-indebtedness that derailed Argentina in 2001.
- If a move towards a political union should be possible in the Eurozone, it will need legitimacy from a Eurozone Parliament which should, inter alia, have the right to run a budget deficit in order to adopt effective fiscal policy – the issuing of Euro bonds should be allowed in Brussels. With a larger supranational fiscal role in a Euro Political Union the expenditures at the national layer should be cut: more than proportionately, since efficiency gains should be expected. The negative spill-over effects from a serious national debt crisis could become rather less significant since a larger supranational fiscal role reinforces the option of letting EU member countries go bankrupt in case that the respective government strongly violates national/supranational deficit/debt rules.
- The number of seats in the European Parliament should automatically adjust in line with the population of member countries so that countries with an increasing population – such as Germany, France or Spain (before 2008) – will receive a greater political weight in the future. This is a useful politico-economic incentive since poorly governed countries with a high level of emigration will lose political weight over time and well governed countries with high immigration will gain political weight. This mechanism works well in the US as a careful consideration of, for example, California's rising political weight indicates.

- Competition intensity in the non-tradables sector should be reviewed by the European Commission and the ECB, respectively: Countries that have weak competition intensity in the non-tradables sector should not be allowed to join the monetary union – hence the accession criteria should be modified in order to avoid getting countries on board whose economy is partly distorted by government and a rigid non-tradables sector. Lack of competition in the non-tradables sector implies relatively high prices in that sector and therefore an excessive size of the non-tradables sector – with the consequence of having a rather small tradables sector and this, in turn, implies a structural current account problem: The current account position is determined by the difference between tradables output and the domestic demand for tradables so that a rather small tradables sector implies a structural current account deficit and lack of international competitiveness, respectively. Corrected for the size of the economy the "true openness" of Greece for trade is rather small – running a regression that corrects for the size of the economy shows that Greece, Italy, Spain and Portugal (plus France and Finland) had a problem in this regard in 2013.

In retrospect, the 2010-14 handling of the Greek crisis was rather inadequate in Athens, Paris, Berlin and Brussels:

- Greek governments have refused any major privatization initiatives; by 2014 only about 1% of government assets had been privatized and many reforms were adopted with great reluctance. The export intensity is only about half of what comparable countries show and Greek authorities were rather reluctant to adopt reforms.
- The French government under president Sarkozy had refused to accept the early haircut for Greece – involving private creditors - proposed by Germany. Only in 2012 a haircut was imposed on private creditors.
- The German government had never considered the option to involve early on the EBRD experts that have supported privatization and institutional modernization in 29 eastern European countries (thus the suggestions of this author were not realized – indeed, in the ministry of finance it was argued that Greece is not part of eastern Europe so that the EBRD could not be involved); moreover, Germany has not pushed for a Marshall-type plan that could have helped to avoid that Greece would suffer from the longest consecutive period of recession – five years – of any modern western country, and it was quite clear from the outset that -25% output decline would undermine the political stability of Greece (three consecutive recession years and -16% in the 1930s destroyed Germany's political system: it brought a majority of politically radical parties in parliament; just as the January 2015 elections in Greece). Ignoring political constraints in a democracy undermines the prospects for economic recovery.
- In Brussels, the Commission's president, Barroso, never publicly criticized the massive deficit fraud of Greece of 2009, when the Nea Dimocratia government tried in vain to buy an election victory – 4% deficit-GDP ratio were notified by the government in spring to the Commission while the true value was 15.5%, as was found out only in mid-2010. After the collapse of Lehman Brothers bank the risk appetite in international financial markets had collapsed and it was totally irresponsible of the Greek government to adopt a 15% deficit-GDP ratio (five times the maximum limit under the European Stability and Growth Pact); the initial debt-GDP ratio in late 2008 was close to 110% and a deficit-GDP ratio of 15% implied that the debt-GDP ratio would increase within the following five years by at least

> 45% if one assumes that it would be possible to cut the deficit-GDP ratio by 3 points per year which typically is considered as a critically high order of magnitude. That such incredible deficit fraud was possible in Greece testifies to a total lack of effective national budget monitoring on the side of the European Commission.

If Greece were, for example, Illinois in the US, it would have been clear in 2009 that Greece would go bankrupt, however the EU is not the US. The fiscal expenditure relative to GDP at the US federal level is 9% for government consumption and including social security it is around 20%, in Brussels it is only 1% (figures for 2013). Bankruptcy in Greece in 2010 would have implied the collapse of government in that country - while the bankruptcy of Illinois would, of course, not mean an end of government presence in Illinois since all US federal programs would still be operational. So there were some arguments that euro partners would help Greece; and in 2010 there still was a considerable risk of contagion as the spreads on bonds of Spain, Italy, Portugal and Ireland – compared to Germany - indicated. The IMF was involved, but the IMF's perception was quite misleading as in 2010 the view was that the recession in Greece would take only one year. By late 2014 it has become clear that both Ireland and Portugal have made considerable progress with economic recovery; Spain has also been recording growth in 2014 and a decline of unemployment. Political systems have faced the entry of newcomers, and this includes not only Greece but Spain (Podemos) and Germany (AfD - which is an anti-euro and anti-immigration party). EU countries thus might head towards more political instability in the future and the victory of populist anti-EU parties in the European elections in the UK and in France in 2014 reinforces the impression about impending political destabilization of the EU.

While the four freedoms of the EU single market have delivered considerable economic benefits, the euro crisis on the one hand, and the UK's long established pushing for EU reforms on the other, have undermined the support for EU integration; problems with EU regional and structural policy are also obvious, as empirical findings suggest that 50% of the respective funds have no effect in the recipient regions (Becker et al. 2010). Finding such a large degree of inefficiency in EU policy suggests that any reinforcement of the supranational layer of fiscal policy in the Eurozone should be implemented only after supranational policy efficiency standards in Brussels have strongly been improved. The fact that the European Parliament is not really working on the basis of parties supporting government/the EU Commission, while the smaller half of the parliament stands for a strong opposition – representing strong political competition –, is one of the sources of inefficiency in EU expenditure policies; the European Parliament effectively stands for an almost-all-parties-encompassing informal coalition fighting with the EU Commission over desired compromises: it is like Switzerland, however, without a strong referendum element.

When the Eurozone was created there were plans for a political union to be introduced later, however, the conflicts over the euro crisis makes achieving political consensus on creating such a union very difficult. There also is apparent illusion about the necessary fiscal transfers in a monetary union: In an IMF note, the authors (Tressel and Wang and Kang and Shambaugh, 2014, p. 12) emphasize that over two decades in the US, West Virginia, Mississippi and New Mexico have received net federal transfers of about 2.5 times the respective state GDP, in the period 1990-2009 the state of New York contributed

net transfers – expressed as % of 2009 state GDP – of 87% of its state GDP, Connecticut 106% and New Jersey 150%. The total budget of the EU is one per cent of GDP and less than 0.5% of the EU's GDP stands for annual cross-border transfers. None of the EU countries has ever contributed high net transfers to other EU countries; if Germany and other euro countries would give a green light for a haircut on the public debt of Greece of € 100 bill., this would be 1% of the Eurozone's annual GDP. At the same time, one may point out that this would be a large transfer in favour of Greece, namely € 10000 per capita which is roughly 40% of per capita GDP in 2014. Beyond the special case of Greece, one may argue that intra-euro area transfers are too small for a monetary union with considerable heterogeneity of per capita income and human capital endowment.

The inflation history of EU countries differs considerably and high inflation countries indeed might stand for insufficient ability to balance budgets through adequate tax receipts or expenditures cuts. Jordan (1994) has emphasized that switching to a monetary union in the EU will bring about specific problems for countries where government has relied on relatively large national seigniorage gains as a revenue element: those countries would be likely to face higher deficit-GDP ratios after the start of monetary integration and the overall logic of monetary policy suggested that there was a certain bail-out risk once the monetary union was adopted; and that a fiscal union would be needed in the end to get a stable monetary union.

The fact that the early elections of January 25, 2015 brought a majority for the left-wing SYRIZA party that immediately created a coalition with the much smaller right-wing populist ANEL party has raised new questions in the Eurozone, not least since the new Tsipras government has declared that it will not want to cooperate with the Troika (IMF, ECB, EU Commission) that had informally controlled the implementation of the adjustment programme; and the new government has emphasized that it will seek a new haircut which would involve mainly governments of Eurozone countries and the respective tax payers. The fact that the interest payment-GDP ratio of Greece in late 2014 was close to 5% and thus more than 3 points lower than in 1998 does not suggest that Greece faces an excessive debt burden, but there is the problem that the Troika's adjustment programme for 2015/2016 wants to raise the primary budget surplus-GDP ratio from about 2% in late 2014 to about 5%; and this is rather illusory although Greece's economic growth had recovered in 2014. The fact that radical parties have won the majority of votes in Greece in January 2015 is not really surprising given the fact that the country has faced a cumulated output decline of 25%; in Germany in the early 1930s three consecutive years of recession with a cumulated output decline of 16% were sufficient to bring about a radical majority in the parliament as well – given the historical facts, and taking into account that Germany itself has been the main recipient of US Marshall Plan aid after 1945, it is rather surprising that the German government had not pushed for a European Marshall Plan to help Greece in overcoming its massive Greek crisis which in 2014 became visible not least in very high youth unemployment, rising infant mortality rates and a dramatically declining health insurance coverage of the population. One also may argue that IMF and EU studies suggested output improvements in Greece that were much too optimistic and hence the political disappointment in Greece was considerable. Finally, one may point out the serious problem that the many adjustment elements implemented in Greece had now achieved bringing about a positive growth rate of gross value-added in the tradables sector – in contrast to Ireland (Tressel and Wang and Kang and Shambaugh 2014). One might assume

that export financing problems are part of the explanation of modest Greek export growth in 2010-14 and here the European Commission, based on secret ECB survey figures, could have been more supportive in Greece, Portugal and Spain. It is unclear whether or not the new Greek government and its creditors in the Eurozone will find a compromise in the conflict over Greek debt; but it is fairly clear that the hesitation of Germany's government and of other EU countries' governments to attach as a condition for giving loans to Greece the requirement to swiftly proceed with privatization of the large government assets in Greece – and to involve the EBRD in such efforts – was a policy pitfall (Welfens 2012 and Welfens 2013a).

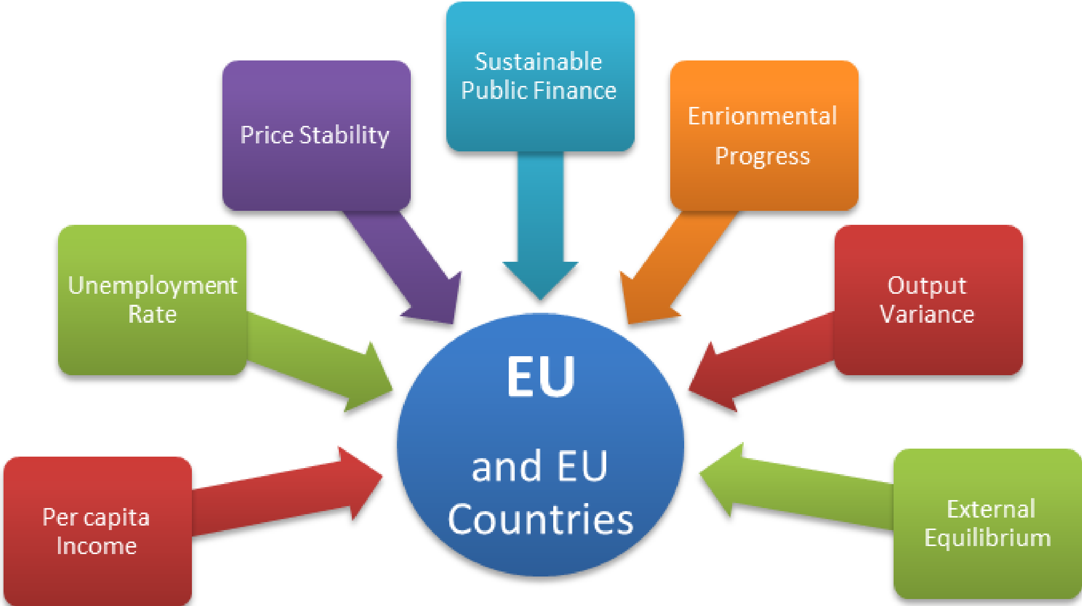
As regards the Eurozone, the prospects for higher output growth have improved in early 2015, as the ECB has announced a broad quantitative easing programme for fear of deflation. December 2014 (-0.2%) and January 2015 (-0.5%) already showed deflationary pressure in the Eurozone and inflation rates in the first half of 2015 – prior to the massive decline of oil prices – had continued to decline. With the ECB rate at 0.05% at the end of 2014, it was clear that the European Central Bank would adopt some form of QE sooner or later. QE is basically open market policy and the Branson model, designed for a small open economy, suggests that there will be two key effects: a depreciation of the currency and a fall of the interest rate. While the Eurozone is not a small open economy, one may nevertheless use the Branson model as a simple point of analytical reference: The depreciation will stimulate net exports of goods and services and the fall of the interest rate will stimulate investment at least in the southern Eurozone countries – in Germany and France, the long term interest rates had already been very low in 2013/2014, mainly due to spillover effects from the US and British QE programmes on the one hand and apparent safe haven effects on the other. As the US and the UK have phased out QE programmes in 2014, the unnatural appreciation of the Euro has started to reverse in the middle of that year and 2015 should bring a considerable depreciation of the euro vis-à-vis the Dollar. The two key effects of the ECB's QE policy, which aims at buying sovereign bonds and commercial bonds for € 60 bill. per month between March 2015 and September 2016 (or even beyond), should be stimulating growth in Eurozone countries and bringing down interest rates in the US and indeed worldwide. A medium term improvement of the Eurozone's current account will bring about an appreciation – hence a smaller depreciation than in the first stage of QE - and a dampening of the initial fall of the interest rate if one follows the analytical logic of the simple Branson model. Moreover, there will be side effects of the QE policy – including potentially high future government pressure on the ECB to stick to a low interest rate policy. Also, a side effect will be that the interest expenditures relative to GDP will fall by about 0.3 points by end of 2016 if one assumes an average interest rate of 3%: As the ECB will then hold government bonds equivalent to slightly more than 10% of GDP of euro countries, the Eurozone governments effectively will pay interest payments to the ECB which, however, will record higher profits that in turn will be distributed – at least partly – to the owners of the ECB, read: member states of the Eurozone. Rather low oil prices, QE and the announced expansionary fiscal policy in the form of higher infrastructure expenditures (0.8% of GDP over three years as emphasized by the new Juncker Commission – projects will, however, mobilize mainly private funding) could raise output of the Eurozone and help to bring down the debt-GDP ratios. It is clear that more structural reforms are necessary in many Eurozone countries to

bring about higher growth rates of technological progress and economic growth, respectively.

While euro crisis dynamics in 2008-2014 were fairly obvious, one should not overlook that the first decade of monetary integration had worked rather well, possibly except for the problem that governments in Spain, Portugal, Greece and Italy were not wise enough to use the massive reduction of the real interest rate to put more emphasis on debt reduction and to combine such policy with an increase of VAT rates designed to stimulate net exports through putting a tax brake on potentially excessive increases of consumption; part of higher VAT revenues could have been used to give stronger government support for private sector innovation dynamics. For various reasons – and adopting a broader policy perspective - it should be useful to take stock of the EU economic policy goals and to consider reforms necessary for generating long-run net economic benefits for all EU countries.

The fact that Greece as a small country was able to put enormous pressure on its partner countries in 2010-2015 and that the Greek government would – in the case of the Tsipras coalition government – almost not really govern at all in the first half of 2015 (and allow government arrears to increase all the time) raises critical issues: for Greece and for the EU/the Eurozone. With the Tsipras government declaring that it was not backing the compromise of Brussels of July 12/13 the situation in Greece politically was worse than in Poland in 1989/1990 when the new Masowiecki government – with Balcerowicz as the minister of finance – was facing the challenge of systemic transformation. Moreover, the series of governments with modest progress in economic reforms in Greece suggests that the country needs a new constitution. At the same time one may argue that the EU has so many goals of economic policy (see the subsequent graph) that it cannot deliver on its long list.

Figure 1: Policy Fields in the EU



The perception of EU integration success is obviously related to several key variables:

- Per capita income development: economic integration is expected to contribute to economic catching-up and, based on empirical evidence for 13 EU countries, this has indeed been the case (Jungmittag 2006);
- The unemployment rate: this rate is strongly related to labour market institutions and an adequate mix of fiscal and monetary policy. Hofer and Pichelmann (1999) have shown that EU single market dynamics have reinforced labour market clearing in the EU15 countries, but there is evidence that insider-outsider problems persist;
- Price stability: in the EU the creation of the euro area in 1999 brought major change in the sense that in the group of initially 11 euro countries a low inflation rate was achieved by means of the rather consistent monetary policy framework of the European Central Bank. The ECB has, however, neglected issues of fiscal sustainability and overemphasized the view that individual countries' economic performance should not be considered as relevant. However, as long as there was no supranational euro bonds, the ECB should have been very concerned indeed by fiscal developments and excessive deficits in individual euro countries – the crucial policy field of open market policies would naturally involve buying bonds of individual euro member countries or of all euro countries at the same time. However, the ECB publications of 1999-2010 show a benign neglect of fiscal policy sustainability issues. At the same time the European Commission refrained from looking into monetary policy issues – almost no publication can be found from the Commission on ECB Monetary Policy. Thereby the Commission overlooked the potential problems of open market policies.
- Sustainable public finance: the Stability and Growth Pact had defined, in a pragmatic approach, that a maximum of 3% deficit-GDP ratio and a maximum of a 60% debt-GDP ratio should be respected by euro countries. However, this pact was not enforced by the Commission – within the first twelve years about 70 cases of excessive deficit/debt could be observed. Germany and France were among the early sinners and the respective governments obviously did not understand that a lack of sticking to the Pact would imply that the deficit and debt limits enshrined would henceforth no longer be respected in a broader context.
- Environmental progress: In this field, the EU should be responsible for cross-border environmental problems, however, this normative principle is not really implemented since the supranational policy layer has no right to impose environmental taxes on emissions. This points to policy efficiency problems in the European Union.
- Economic stability – as measured by output variance (and political stability; the latter could be proxied, for example by the number of countries with early elections – but political stability to a large extent is related to economic stability). Here the euro area has a problem since the initial institutional setup does not allow an optimum policy mix: While monetary policy is supranational, fiscal policy is almost exclusively organized at the national level – the ratio of national government consumption to GDP amounts to about 20% in euro countries, the supranational (EU) expenditures relative to GDP are just 1% and are absolutely not representative of an expenditure structure that is suitable for counter-cyclical fiscal policy.
- External equilibrium: Here the euro area should have defined what external equilibrium should mean for a monetary union. In a situation in which one or more euro member countries should lose access to international capital markets – due to

> confidence problems and excessive national deficit/debt dynamics – the commonly favoured view of the aggregate current account balance of the euro area became doubtful from an analytical point of view. By contrast, in Germany, the Stability and Growth Law of 1967 requires that the government achieves external equilibrium along with price stability, full employment and adequate and stable economic growth; this Law should urgently be adjusted to take into account the new institutional setup in the euro area. For other EU countries similar consistency problems should be considered.

The inconsistency between national economic policy and supranational policy is one of the key problems in the EU and the euro area. However, rising political support in favour of anti-EU parties, visible in almost all EU countries since the euro crisis started in 2010, is also a challenge. The growing anti-EU sentiment is, to some extent, also reflective of a lack of clarity about the economic benefits of EU membership and, with the euro crisis, new doubts have emerged in many EU countries. One key aspect of the euro crisis, which raises doubts about the EU, is the fact that such relatively small countries as Greece, Portugal and Ireland – each standing for only about 2% of the EU's gross domestic product – were able to cause so much instability and confusion both in the euro area and the EU.

The role of relevant orders of magnitude is often not really understood. This holds for a number of the confusing contributions to the euro crisis – not least by some economists – but it also is relevant in the context of investment in information & communication technology (ICT); since absolute prices of ICT investment goods have continued to fall over many years the ratio of real ICT investment to real GDP is much higher in the US, Germany and other OECD countries, than the ratio of nominal ICT investment to nominal GDP. Since about 2005, that ratio has started to decline in many countries, while the ratio of real ICT investment to real GDP continues to increase (Welfens and Perret 2014) – and so does the share of ICT investment in total investment. As regards the US, looking at the ratio of total nominal investment to nominal GDP underestimates the relevant ratio of real investment to real GDP by almost 3%; for unclear reasons the Commission has stopped pushing for further ICT innovation and investment dynamics. At the same time the Barroso Commission adopted a programme, Europe 2020, with heavy emphasis on sustainability, but there is no truly common EU energy policy and instead Germany, Sweden, the UK etc. all pursue their own renewable energy programmes which, however, are often inconsistent with the EU single market. Can this problem be sorted out by better coordination among 28 EU member countries, or should the supranational policy layer have more political and economic clout in energy policy instead?

To what extent should one believe in benchmarking and open coordination policy which is often emphasized? Is this voluntary benchmarking not often an excuse to adopt some of the weakest standards in the EU (e.g. in the field of privatization policy there are more than ten post-socialist eastern European member countries on whose experience Greece could have drawn – but less than 10 privatization specialists are active in Athens and the EBRD, with experience of privatization in 30 countries, was kept out of the Greek problems in 2010-2013)? Is the EU a club of countries with rich experience in many policy areas but slow and poor learning in many other policy fields? Are the institutions of the EU and the euro area such that Europe can effectively cope with new challenges such as globalization, global warming or the rise of China?

It could be argued that the euro area has not solved the problem of implementing deficit rules in any meaningful way and that the solution lies in a political euro union with different institutions and much higher expenditures – following the principles of fiscal federalism. At the same time, the European Commission should stop undermining the policy autonomy of EU member countries in certain fields; it is hoped a future euro area government, whose attention would be absorbed by big international issues, would keep out of many traditional political battle fields (including the regulation of bananas and oil carafes in restaurants). Finally, arguments will be presented that show that euro benefits are higher in a functional economic and monetary union than traditionally thought; and that the introduction of euro bonds – in two possible variants – could be an easy way to solve many problems at the same time: a) to stimulate credits to the private sector, b) to reduce interest payment expenditures of euro countries, c) to reinforce the role of the euro as an international reserve currency, d) to provide a simple option for quantitative easing of the ECB if needed and e) to reduce the policy burden of the ECB. The tax rate of a political union could be 1-2 percentage points lower than it is now in the euro area provided that there are efficiency gains in the overall administration of the Eurozone and that the interest expenditures relative to GDP will be lower than otherwise. This, however, is not a strong incentive to create a euro political union since shifting economic and political power from the national to the supranational level clearly reduces the power at the national level – and hence parliaments of member countries have no clear interest in contributing towards a Euro Political Union unless there are improvements of political career opportunities for leading politicians at the national level. One incentive to be considered on the way to a political union could be to offer politicians from the national layer the chance to become a member of a well-paid advisory group for the supranational Euro Parliament. The political economy of switching to a Euro Political Union is complex; given the high national debt-GDP problems shifting national debt – equivalent to a certain percentage to GDP – to the supranational level might be considered, but this will work only if there is supranational taxation.

3. Economic Analysis of Euro Dynamics, Benefits and Problems

3.1 Calculating the Benefits from the Euro: A New View and a Growth Model with International Seigniorage

The euro crisis was interpreted by many EU sceptics as meaning that monetary integration could not deliver the economic benefits promised before the start of the euro area and the European Central Bank. This, however, is a misreading of monetary union, at least to the extent that it should not be difficult to really implement the Stability and Growth Pact in a revised institutional setting. The euro benefits could be even larger than promised by the European Commission in its study One Europe – One Money. A key benefit, that has not been much considered, is related to the euro's role as an international reserve currency. The view of Chinn and Frankel (2008) that the share of the euro in global reserves might overtake the share of the US dollar is interesting, however, after the euro crisis this view is

not very convincing – at least not until the euro crisis has been solved in a sustainable manner.

While the potential benefits of the euro are large, there are also some specific risks associated with the financing structure of the EU. The ratio of banks' assets to GDP in the US is close to 100%, but the respective ratio in the EU is about 350% and the true equity capital of EU banks is only about 2% if one defines equity capital on a narrow base (Schoemaker and Peek 2014). This implies that a rather small, EU-wide, negative shock could seriously destabilize the European banking system. Contingent bonds ("Coco Bonds") have been suggested by the Liikanen Group in the EU as a means to cope with potential banking instability. This instrument should be introduced on a broader scale so that Coco Bonds become more firmly established. Contingent bonds are automatically converted into equity once the equity capital of the respective banks falls below a critical level. The 'too big to fail' issue, relating to big banks, is still a key problem for the EU and the euro area, respectively, but the start of the EU banking union in November 2014 will help to cope with this problem as a cascade of responsibility has been established which should help to reduce recourse to taxpayers' money on the future. There is, however, a pitfall with Coco Bonds: Banks in the UK and the Eurozone are allowed to hold such bonds, but in such a setting Coco Bonds do not contribute much to getting specific banking risk out of the banking sector.

Benefits of the Euro

Potential economic benefits of euro integration – assuming a functional institutional setup of the Eurozone - go beyond what has been calculated by various earlier studies that have mainly emphasized the reduction of transaction costs and the elimination of exchange rate risk and the rise of price transparency in the EU single market. The economic benefits related to the role of the Euro as an international reserve currency are crucial. Let us consider that the global currency reserves are about € 6000 bill. (in 2013) where the euro could have a market share of 25% - it was close to this figure before the euro crisis and since then the market share in the global foreign reserves of central banks has slightly declined. Let us assume that, following the analysis of Eichengreen (2012) for the US dollar, the difference between the global yield of investment is 2-3 percentage points higher than the interest rate paid on foreign reserves. Taking up the lower bound estimate of 2 percentage points the economic benefit for the euro area is equal to 0.25 x 0.02 x € 6 000 bill. = € 30 bill. per year; or about 0.3% of the euro area GDP. This is the amount of "free imports of goods and services" that the euro area countries can obtain from the rest of the world. The present value of this advantage is – based on a real interest rate of 3% - (100/3) x € 30 bill. = € 1 000 bill., or about 10% of the euro area's GDP of € 9 500 bill. in 2012. Dividing € 1 000 bill. by 330 million people in the euro area the per capita life-time benefit is roughly € 3 000, only from the reserve-holding aspect. The euro's market share increased from 18% to 25% between 1999 and 2009, a stable and successful monetary union could increase its global market share to about 40% in the long run; in the years of the euro crisis the market share of the € in global reserves has slightly declined. Taking into account other benefits from saving transaction costs and from enhanced innovation dynamics, plus financial economies of scale, the benefits of the euro could be close to 1% of EU GDP which translates, at a discount rate of 3%, into a positive lifetime welfare effect of the euro of € 10 000 per capita. One should, however, emphasize that such benefits can only be achieved in the context of a stable euro area. A euro area in which

fiscal discipline cannot be imposed on euro member countries will not be able to deliver the benefits calculated here – the institutional setup needed for a stable euro area which imposes fiscal discipline will be described later. A modified neoclassical growth model with international seigniorage based on the reserve currency status of the currency is presented subsequently. As regards an analytical framework for a growth model with international seigniorage, a rather simple neoclassical model allows more light to be shed on the benefits of the euro.

3.2 A Neoclassical Growth Model with International Seigniorage

A critical part of the economic benefits of the currency of a big monetary union is related to its role as an international reserve currency. This holds true for both the US dollar and the euro. Let us consider a simple model where country I is the home country and its currency is an international reserve currency. Country I has a production function

(1) $Y=K^{ß}(AL)^{1-ß}$

where Y is output, K, A and L denote capital, knowledge and labour, respectively; $0<ß<1$. Nominal foreign currency reserves of the central bank held abroad (Country II) are denoted by R*, in real terms – expressed in units of Country I – the reserves are R*/P. It is assumed (with δ denoting the capital depreciation rate) that the difference between the net marginal product of capital $ßY/K - \delta$ is equal to $\Omega'r'$ where r' is rate of return which the reserve currency country pays on the government bonds held by Country II; the parameter Ω' exceeds unity so that the net marginal product of capital exceeds r'. It will be assumed that r' is indeed rather low, namely that there will be a permanent positive difference between the net marginal product of capital and r'. Hence we have the following equilibrium condition for the goods market: savings $S=sY$ $(0<s<1)$ plus the imputed benefit $(ßY/K - \delta - r')R^*/P$ from foreign reserves holdings is equal to gross investment $dK/dt + \delta K$ (K is capital, t is time).

(2) $dK/dt + \delta K = sY + [(ßY/K - \delta - r')R^*/P]$

This equation is reflecting goods market equilibrium in an open economy – a country whose currency has the status of a reserve currency – can finance a permanent current account deficit which is given by the square bracket term (effectively this term represents foreign savings that affectively accrue to the reserve currency country); for simplicity one may consider this term as reflecting the real value of imported capital goods that effectively are obtained for free from Country II – if we assume that Country I can create additional amount of reserve currency at zero marginal costs.

Let us assume that the gap

(3) $(ßY/K - \delta - r')= \Omega >0$

and that it holds

(4) $R^*/P=\varphi^*Y$

where φ* is a policy parameter of Country II; the government/central bank of Country II wants to make sure that reserves are sufficient to buy at any moment a share φ* of the

output of Country I (the reserve currency country). The term (ßY/K - δ - r')φ* thus stands for a permanent current account deficit position of Country I, which is effectively the direct benefit of enjoying the privilege of having the status of a reserve currency.

Based on a production function $Y=K^{ß}(AL)^{1-ß}$, we get (with a constant growth rate a of knowledge and a constant population growth rate n; and y':= Y/(AL)) in a modified neoclassical growth model the following equation for the accumulation of capital (with k':= K/(AL))

(5) $dk'/dt = (s + \Omega\varphi^*)k'^{ß} - (a+n+\delta)k'$.

Thus the steady state capital intensity (# denotes steady state) is

(6) $k'\# = ((s + \Omega\varphi^*)/(a+n+\delta))^{1/(1-ß)}$

Hence, the reserve currency will enjoy a higher steady capital intensity than without the position of a reserve currency. Moreover, the level of output per labour in efficiency units (y') will also be raised through the reserve status of the currency (e' denotes the Euler number):

(7) $y'\# = ((s + \Omega\varphi^*)/(a+n+\delta))^{ß/(1-ß)}$

Hence, per capita income y:= Y/L in the steady state is given by a simple expression which clearly is raised through the term $\Omega\varphi^*$ in the numerator (with A_0 denoting the initial level of knowledge; subsequently t is the time index):

(8) $y =((s +\Omega^*\varphi)/(a+n+\delta))^{ß/(1-ß)} A_0e'^{at}$

As regards the order of magnitude, one should consider that s= 15%, Ω= 3% and φ*=100% implies a considerable increase of the steady state per capita income – related to the reserve currency status: Denoting $\Omega\varphi^*$ as a fraction s' of s (hence $\Omega\varphi$= s's) we can write (with the approximation $\ln(1+s') \approx s'$):

(9) $\ln y \approx (ß/(1-ß))[(\ln s + s') - \ln(a + n + \delta) + \ln A_0] + at$

If $\Omega\varphi$/s increases by one percentage point, real per capita income will increase by a percentage of 0.01ß/(1-ß), or an increase of per capita output of 0.5% if ß is assumed to be close to 1/3 (a typical number for many OECD countries). Hence, if the gap Ω increases from 2% to 4%, the ratio $\Omega\varphi^*$/s increases by 13.3 percentage points and hence the real per capita income level of the steady state will rise by 0.7 percent = € 166.70, if the annual per capita income in the euro area is assumed to be € 25 000. It should be noted that the status of the euro as an international reserve currency would be reinforced if true supranational euro bonds could be introduced within a stable fiscal framework – that is if the debt-GDP ratios would be kept in a range that brings about at least strong A ratings of government bonds for a synthetic euro bond (composed of government bonds from all euro member countries where ideally such bonds would be backed by government assets).

The implicit assumption made here is that the free import obtained through the reserve currency status is used for additional capital accumulation and that there is no effect on the progress rate. If, however, the progress rate a is endogenous and a is related to the share of R&D expenditures relative to GDP the rise of y'# in the steady state would also imply a higher a# in the steady state. Since the variable a figures also the denominator of the expression for the level of the growth path of y':= Y/(AL) and y, respectively, will transitorily decline for some time, but clearly the growth rate of output in the steady state

would increase. Moreover, there could be positive international technology spillovers so that a rise of a could also raise a* in Country II. Such spillovers could be expected the more two-way foreign direct investment has taken place in the past, that is, the more active multinational companies are on both sides.

3.3 The EU Crisis and Financial Market Instability Problems

3.3.1 Enlargement Problems, Complexity and Cohesion

The EU has, to some extent, a history as an elite project and this aspect seems to have become more important since the 1990s. This perception has partly emerged in the context of EU eastern Enlargement, which means that the EU of 28 countries in 2014 is much more complex – and thus more difficult to understand – than the EU15 before the eastern enlargement started on May 1st, 2004. The communication efforts of the European Commission have not increased in keeping with the rising complexity of integration.

If enlargement leads to an economic 'catching-up' in relatively poor new member countries, achieving political consensus at some point could become easier in the Community – despite the rising number of member countries; the assumption made here is that with a rising convergence of per capita income (at purchasing power parity) achieving consensus will become easier since the similarity of political preferences are typically positively linked to the similarity of per capita income positions. Here, the EU structural funds and the cohesion fund have not only an economic function but a political function as well, provided that such funds stimulated economic catching up of regions and member countries, respectively. The Euro crisis has been a considerable setback, not only in terms of economic cohesion but it has also undermined political decision-making in the EU, since achieving consensus has become more difficult on the back of transitory income divergence across euro area/EU member countries.

Given ongoing economic globalization and the rising role of technology and multinational companies for economic growth, the EU should not simply emphasize locational competition and system competition in the European Union. One should consider more active benchmarking and better regular reports on innovation systems and innovation dynamics. DG Macro should be encouraged to analyse in much more detail the Schumpeterian dynamics of EU countries and the role of such dynamics for growth, structural change, trade and foreign direct investment. Product innovations are no less important than process innovations.

It is noteworthy that the real demand for money can be shown to be a positive function of product innovations since the marginal benefits of liquidity will be raised if more product innovations become available in the market. Empirical research for EU countries is straightforward here.

Since 2014 – i.e. since the full mobility of capital and labour has been introduced for Romania and Bulgaria - immigration within the EU has become a new hot issue, particularly in some prospective destination countries. Here it is quite important to point out that destination countries are not only facing the challenge of an influx of unskilled labour, but typically skilled workers (including physicians, scientists, software experts etc.)

are also coming. Western EU countries are free to cope with immigration from Eastern Europe not only by supporting the integration of immigrants; but they could also tap EU funds to finance projects in eastern European EU countries.

Finally, part of the euro crisis management in 2010-13 has been rather poor. People often feel that the standard principles of EU/euro policy are no longer respected and this creates uncertainty and frustration in the broader public.

3.3.2 The Euro Crisis and the Transatlantic Banking Crisis

The Stability and Growth Pact was not credible in the euro area during the first twelve years: Neither the deficit-GDP ratio of 3% nor the 60% debt-GDP ratio could be enforced. Small euro countries with high debt-GDP ratios were rather vulnerable to the Lehman Brothers bankruptcy of September 15th, 2008; governments of countries such as Greece and Portugal, with high foreign debt-GDP ratios should have immediately adopted a twin-pronged policy of budget consolidation and improving international competitiveness, but the governments in Athens and Lisbon did just the opposite.

The chronology of the euro crisis that erupted in May 2010 can be summarized by four key elements (Welfens 2012).

- The Transatlantic Banking Crisis – with its peak in the form of the collapse of the US investment bank Lehman Brothers on September 15th, 2008 – made investors more risk-averse, so that countries with high debt-GDP ratios or high deficit-GDP ratios were bound to face increasing problems in refinancing government debt in international capital markets: This author had already warned in a previous book, Transatlantische Bankenkrise (pp. 158-159: Transatlantic Banking Crisis), that a euro crisis was a likely scenario for the EU after the transatlantic banking crisis.
- The Greek government's deficit policy during the election year of 2009, when the government notified a deficit-GDP ratio of 4% to the European Commission while the true figure was about 16%, is considered a politically motivated deficit fraud which was bound to lead to a very difficult problem: Not only was the deficit-GDP ratio of 15.6% far removed from the maximum deficit-GDP ratio of 3% enshrined in the Stability and Growth Pact of the EU, but experience shows that a deficit-GDP ratio cannot be reduced by more than a few percentage points per year and therefore Greece, already having a debt-GDP ratio of 110% in 2008, was facing bankruptcy and a loss of access to international capital markets in 2009. Greece obtained a multilateral rescue package from Euro partner countries which one may consider as an adequate policy intervention only in combination with sufficient privatization efforts by the Greek government. The government of Greece should have embraced the challenge of privatization: According to an IMF report of December 2010 the government's assets clearly exceeded government debt, but the privatization efforts were dismal, less than 1% of assets were privatized in 2010-2013.
- Ireland, crisis country No. 2 in 2010, stands for a different policy pitfall: The government there did not implement the EU Banking Directive – risk diversification was ignored as a key principle in Ireland's major banks; and prudential supervision agencies did not intervene, instead so-called 'light regulation' was applied. The result was that Ireland's banks suffered sky-high losses in 2008/09 and the Irish government was more or less forced to save major

Irish banks through the injection of capital and nationalization, respectively. The massive costs of saving banks translated to a deficit-GDP ratio of close to 32% in 2010, 2/3rds of which was accounted for by the government's bank rescuing costs. Ireland obtained more than € 60 billion in rescue funds, but the European Commission and Euro partner countries did not even require an independent inspection report before giving such a large rescue loan to Ireland.

- Portugal became the third crisis country (in 2011) and had to obtain funds from the Euro rescue fund EFSF. Italy and Spain also faced a certain destabilization as interest rates of these countries strongly increased which partly reflected a higher risk premium. The interest rate conversion of the euro area's first decade thus gave way to interest rate diversion. Germany, considered – along with France – to be a safe haven country, attracted very high capital inflows so that the interest rate is unusually low. Welfens (2009) argues that the German government's saving on interest rate expenditures is close to 1% of GDP and the low interest rate has raised private investment. Structural adjustment in crisis countries has made progress (Heise 2013). Cyprus also faced serious problems and had to impose capital controls for two years; depositors with more than € 100 000 had to contribute to bank restructuring in Cyprus.
- With the banking union in place since early November 2015, the Eurozone, institutionally speaking, is in a better position than previously, since the ECB has become the prudential supervisor of the major banks in the Eurozone countries while the rules in banking supervision have become more streamlined across EU countries. The European Court of Justice's decision in June 2015, that the ECB's intervention option OMT programme (possible intervention in favour of a Euro country – still enjoying access to the capital market - with an adjustment programme with the rescue fund ESM) is legal, also reinforces the range of instruments that the ECB has for stabilization. However, the ECB is in a strange position in the field of Emergency Liquidity Assistance, which became increasingly critical as a life-line for Greek's banks in June 2015 (with a level of about € 90 bill., 1/8 below the peak in 2013); the leading banks of Greece had effectively become nationalized during the crisis of 2012 since the haircut imposed on private investors erased part of banks' assets, namely those held in the form of Greek government debt; it is strange that the EFSF rescue fund effectively gave the Greek government new funds to nationalize the major banks – this is like rewarding politicians for their misbehaviour in deficit policies. It was only on June 28th 2015 that Greece imposed capital controls.

One may criticize the non-privatization of government assets in Greece and call for the European Bank for Reconstruction and Development in London – with vast privatization experience in post-socialist eastern European countries – to be involved in a joint privatization effort between the government in Athens and European partner institutions. Rarely has a country that has lost access to the capital market so hesitantly considered privatization options than all the Greek governments in 2010-15 (e.g. the old airport of Athens stood idle for a whole decade and was only then privatized – political economy aspects explaining the lack of privatization dynamics). With that finding one may argue that the most important reform to adopt in Greece would be a new constitution.

As regards the IMF, it is noteworthy that it has a long record of always overestimating economic recovery in the adjustment scenarios for Greece in 2010-2014. From this perspective, the IMF has reinforced transitorily the recession in Greece, namely by

undermining economic confidence in a setting with repeated economic disappointment on the side of firms, government and private households. While the IMF is a powerful international organization it is not generally very careful in its work. The International Monetary Fund may be criticized, for example, for the pitfalls in its Financial Sector Assessment Program (FSAP) which looks into the financial sector of IMF member countries: the IMF's analysis of Ireland of 2006 which argued that there were no problems in the financial sector of Ireland was obviously quite misleading (such misleading also occurred in the case of Switzerland).

The increasing role of the EU summits/euro summits is considered as problematic, since the summit diplomacy visibly restores the role of national policy makers at the EU level while the role of the European Commission is marginalized. One should consider several proposals for overcoming the euro crisis (Welfens 2012):

- As a practical measure, all of the ministries of finance of EU member countries should share the same software and the European Commission should be allowed to look into the digital budget process so that the policy of deficit fraud that has occurred in Greece in 2009 could not be repeated. The European Commission did not understand before the end of 2009 what really had happened in Athens and tardy policy responses may indeed be considered as part and parcel of the euro area problems.
- Massive and rapid privatization in Greece should be organized as a political venture that should draw on the experience of eastern European EU countries. It seems, however, that the Greek government is not interested much in getting international support for broad privatization and the German government was reluctant to consider the involvement of the EBRD in 2010-2013. It was only in late 2014 that the governments of several Euro countries started to put adequate emphasis on the EBRD as an institution to be involved in privatization in Greece.
- The most important issue is the question of how to make the deficit limits of governments credible. Here, only a political euro union would be a success - promising institutional modernization that could help to implement deficit limits and to regain long-term stability. A political euro union would mean that in future Brussels would stand for higher government expenditures (currently 1% of GDP), including infrastructure expenditures and defence, so that the supranational policy layer would largely be responsible for counter-cyclical fiscal policy. A narrow interpretation of the "principle of subsidiarity" (the supranational policy layer should only assume tasks which cannot be fulfilled equally well at lower policy layers) is refuted; only a bigger role of supranational expenditures in certain policy fields would generate the stronger interest of voters in EU policy – the long-term decline in the voter turnout at European Parliament elections could thus be reversed; and certainly there are good reasons why one should have a supranational fiscal policy for which infrastructure expenditures would naturally play an important role. It is, however, unclear what could motivate Germany, France and other countries to give more power to Brussels. The European Parliament plays a strange role in the political radicalization of several countries: The German political research group Forschungsgruppe Wahlen (dealing with elections and voters' behaviour) has argued on the basis of surveys that voters in Germany do not understand what the relevant political topics at the supranational layer really are – 1% of GDP expenditures in Brussels is too small to really matter in the eyes of voters – and hence there is some propensity of voters at European elections to vote

in favour of small and radical parties (see e.g. the UKIP results in 2014); with funds obtained for the supranational votes received, the anti-EU parties/radical parties can then proceed to enter the national political arena and thus undermine the role of middle-of the road parties. That such a setting of political self-destabilization in the EU should urgently be reformed is quite obvious.

The euro has been an institutional innovation in the EU and, with the ECB, it has been a success in the first decade: Low inflation, job creation and considerable growth were achieved by almost all euro countries. The shift to low real interest rates in EU cohesion countries in 1999-2007 has stimulated capital accumulation, but also a strong rise of wages and unit labor costs, respectively; in particular, a strong rise of wages in the non-tradables sector/the public sector in Greece, Portugal, Spain and Italy could be observed and this wage lead of the non-tradables sector has contributed to a worsening of the current account-GDP ratio; in a small open economy, the current account position is simply the excess supply of the tradables sector and, with a non-tradables sector that has grown strongly, the excess supply of tradables sector was bound to shrink. A high current account deficit, in turn, implies a rise of foreign indebtedness. Governments in cohesion countries should have refused to allow strong wage increases in the public sector and could also have raised the VAT rates in order to dampen domestic absorption so that the current account would have increased. The opportunistic behaviour of several small euro countries and the lack of political leadership in the monetary union have undermined the stability of the euro. One should not overlook the fact that Germany and France have also shown rather limited respect for the Stability and Growth Pact in 2003/04 and this has certainly undermined the credibility of the Pact. Both countries have enjoyed, during the period of 2010-2013, specific benefits as safe-haven countries, so that interest payments of government were lower than normally the case. However, one also should consider that France has a specific problem with its high minimum wage while Germany's way to promote renewable energy is quite doubtful – and both problems are related to fiscal deficit problems:

- The French minimum wage legislation is such that firms get a wage subsidy for workers who get paid the minimum wage – close to € 22 billion or roughly 1% of GDP; the wage subsidy (26%) is a strange complementary effect of a rather high minimum wage in France (€ 9.43 in 2013, € 9.53 in 2014). The fiscal effects of minimum wage legislation have long been overlooked. Effectively, the high French minimum wage brings about not only a high youth unemployment rate in many regions of France, it also implies through the associated 1% deficit-GDP ratio that the "specific debt-GDP" ratio (considering only this part of the deficit) of France would be 66.7% in the long-run if one assumes a trend output growth rate of 1.5%; the worsening of the French rating and higher real interest rates are a high price which France under normal capital market condition would have to pay for a rather unsophisticated system of minimum wages. While a modest, and regionally differentiated minimum wage, can generate favourable economic effects, a rather high uniform minimum wage rate can have high social costs that are imposed on both current and future generations; if there is high male youth unemployment political – and religious – radicalization is one of the potential problems to be expected.
- Germany's promotion of solar and wind energy as key renewables is characterized by a policy which pays a fixed feed-in tariff for a twenty year period – an approach

which gives no adequate incentive for innovations. There are no significant innovation effects according to a recent study (EFI, 2014); at the same time it is obvious that Germany's energy-intensive sectors are bound to shrink if electricity prices should strongly increase (IHS, 2014) – e.g. if the exemptions from the renewables surcharge for major exporters have to be phased out as a consequence of the Commission taking Germany to the European Court for the illegal effective subsidization of firms. Households all pay a surcharge on the electricity bill (this is an implicit subsidy), the EEG-levy; as regards firms, small firms have to pay the full renewable energy levy while big firms in the tradables sector are exempt from the surcharge which in the view of the Commission (and probably most economists) amounts to a regime with an explicit subsidization of big exporters. The overall amount of feed-in tariffs paid per year in 2013 was close to € 20 billion – for solar and wind electricity with a market value of € 2 billion plus a market value of greenhouse gas emissions avoided of less than € 0.5 bill. - and it could reach about 1% in 2015/2016; the present value of the 20 year-subsidization scheme in 2013 was close to 10% of Germany's GDP. This feed-in tariff scheme, which has no link between the feed-in tariff and the market price, is highly inefficient and distorts the EU single market (the European Commission has offered Germany exemptions from the surcharge for 67 sectors while demanding that all companies should pay at least $1/5^{th}$ of the standard surcharge which only shows how weak the position of the Commission is) a more intelligent system probably could generate the same effects at half the subsidy. If the current implicit subsidy scheme has to be scrapped and all renewables feed-in payments would have to be paid by explicit government subsidies, Germany's government would face a structural 1% deficit-GDP ratio from the promotion of renewable energy alone – in an institutional setup in which the Fiscal Pact allows a structural deficit-GDP ratio of only 0.5% of GDP (and Germany's Constitution only 0.3% structural deficit at federal level and 0% at the regional level – the latter as of 2020). The current German feed-in tariff scheme will collapse if the European Court – as expected - should decide that EU exporters of renewable energy also should be entitled to obtain the same feed-in tariffs as producers of solar and wind power in Germany; this is expected from the pending case of a Danish renewable energy firm that exports electricity to Sweden and wants to obtain the Swedish feed-in tariff which so far only renewable energy producers in Sweden can obtain. Here one can clearly understand that national energy policies which are not in line with the EU single market cause considerable inefficiencies.

One cannot therefore overlook the fact that not only the governments of certain small countries have conducted strange economies policies. Germany and France, as well as Italy and Spain, stand for euro countries that should adopt more consistent economic policies. It is also fairly obvious that the ECB's monetary policy cannot be a substitute for economic policy contradictions and excessive deficit-GDP ratios of euro countries.

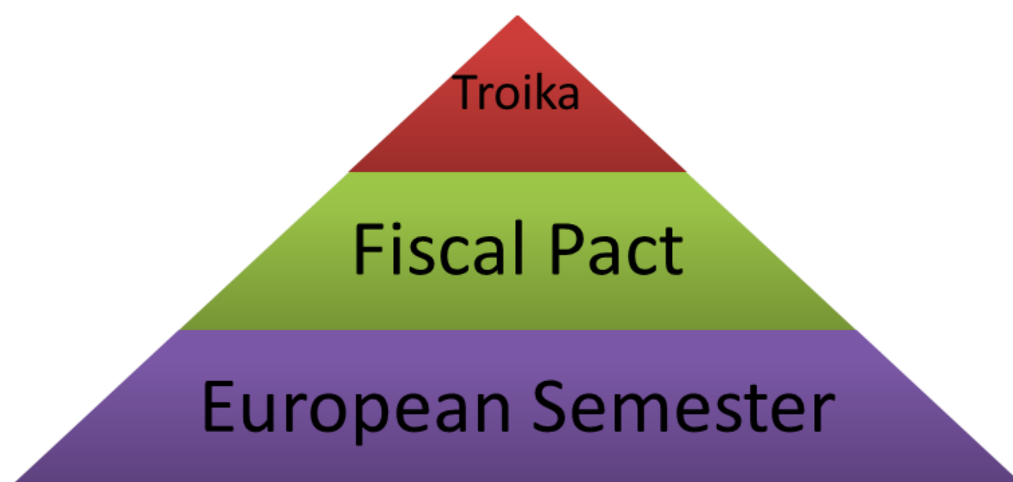
3.3.3 OMT Programme of the ECB and the Verdict of the German Constitutional Court

The September 2012 OMT programme of the ECB has calmed international capital markets: The European Central Bank has announced that it would create the option for an unlimited buying of the government bonds of those crisis countries which had concluded an adjustment programme with the permanent EMS rescue fund; the relevant maturity

should be one to three years and the OMT would be open only for countries which still enjoyed access to capital markets. The German Constitutional Court has declared the OMT to be unconstitutional and has passed the case to the European Court of Justice. Unfortunately, the euro area is like a US without federal government bonds – and one cannot easily determine how the US government and the FED would act in a situation with a debt crisis in several states. Obviously Germany's Constitutional Court largely followed the arguments of the invited expert Hans-Werner Sinn (Sinn 2013), head of the publicly financed Ifo Institute; Sinn called, in the Frankfurter Allgemeine Sonntagszeitung (September 11, 2012) for Germany's government and the German Central Bank to boycott the European Central Bank, an EU institution with full democratic legitimacy – this would not really have suggested that the constitutional court would invite the head of the Ifo Institute to testify in a policy case of the ECB; Sinn's call for a boycott goes beyond the role of a scientist; at least following Critical Rationalism.

The key elements developed in the euro crisis management by the EU are the Troika (IMF, ECB plus EU) as a joint actor for programme countries, the adoption of the Fiscal Pact – with a maximum structural deficit-GDP ratio of 0.5% - and the European semester. The problem, however, is that the IMF is increasingly unwilling to be active in the stabilization of euro countries and the Fiscal Pact, in its present form as a treaty outside the EU's Lisbon Treaty, is not really enforceable. Moreover, the 0.5% structural deficit limit of the Fiscal Pact (adopted by 25 EU countries; not the UK – with a delay in the Czech Republic) is potentially inconsistent with the 3% deficit-GDP limit in the Stability and Growth Pact. Thus it is quite difficult for the general public and investors to understand which deficit-GDP limit is relevant in the respective euro country and this creates new political risk which could translate into a higher risk premium in capital markets; with the effect of reduced investment spending per unit of GDP. It is unclear whether or not the new European Semester will bring more budgetary discipline.

Figure 2: Elements of Fiscal Problem Solving in the Euro Crisis



4. Dynamics of EU Economic Integration and Challenges for EU Economic Deepening

EU economic integration has reinforced the intra-EU network of trade and foreign direct investment. This has contributed to specialization gains and has helped to exploit economies of scale as well as stimulated Schumpeterian innovation dynamics. EU deepening - including Economic and Monetary Union – has reinforced the economic benefits of integration in the first decade, however, the crisis years of 2010-2013 have raised serious concerns about the stability of the euro area. The basic idea of an Economic and Monetary Union was to reinforce the benefits of the EU single market by reinforcing competition and by reducing the nominal and real interest rates in almost all euro countries so that a large welfare gain could be generated. However, the first five years of the euro did not show much improvement in the economic policy of member countries (Posen 2005) and the poor policy reaction of many euro member countries to the Transatlantic Banking Crisis and during the critical year 2009 – after the bankruptcy of the Lehman Brothers bank in 2008 – is part of a lack of professional orientation in the fiscal policy of some euro countries. A special problem associated with real income decline in 2009-2013 in euro crisis countries is not only the rapid rise of unemployment but the rising economic divergence associated with the economic divisions within the euro area and the EU, respectively. Since the cost of achieving political consensus in a group of countries is a positive function of the international income per capita variance, the economic crisis is also associated with a potential political crisis. The large cost of the euro crisis for the EU countries and the "euro club", respectively, clearly suggests that the type of euro crisis of 2010/2011 should definitively be excluded in the future.

Another key EU challenge is the relationship between the internet and the integrity of people – and the attacks of national secret agencies against what should be the "natural digital rights" of everybody, namely digital integrity on the internet in the European Union. The internet has created new loopholes relating to human rights and until now there is no Digital Bill of Rights in the EU. The European Commission and the European Parliament should take the initiative to declare it illegal for the secret service of EU member countries to do what the British GCHQ agency apparently did via a special unit, the JTRIG: *"Among the core self-identified purposes of JTRIG are two tactics: (1) to inject all sorts of false material onto the internet in order to destroy the reputation of its targets; and (2) to use social sciences and other techniques to manipulate online discourse and activism to generate outcomes it considers desirable. To see how extremist these programs are, just consider the tactics they boast of using to achieve those ends: "false flag operations" (posting material to the internet and falsely attributing it to someone else), fake victim blog posts (pretending to be a victim of the individual whose reputation they want to destroy), and posting "negative information" on various forums."* (The Intercept 2014)

It is clear that no individual EU country could deal with the new global privacy and integrity challenge of the internet age. Digital human rights should be defined and defended in Brussels. In Brussels political actors have been kept busy between 2008-2013 with a bewildering range of issues that had to be faced – but sometimes are not fully understood.

4.1 Social Market Economy Facing Increasing Long-Term Financial Instability?

After the US banking crisis and the Transatlantic Banking Crisis rising criticism has been voiced against the Social Market Economy in OECD countries since the financial sector has been the key impulse for economic instability and the Great Recession of 2008/09, respectively. A second wave of criticism is directed against the Economics profession – very few economists anticipated the US banking crisis; among the very few exceptions (probably less than 0.1% of US economists) was Rajan (2005) who explained, in his paper for the Jackson Hole conference of central bankers, why financial innovations were doubtful and brought instability risk for the financial system. The key innovation was in the form of the originate and distribute model: banks give loans to private households and firms in Stage I, shortly after this the bank creates an asset-backed security (ABS) consisting of a broad portfolio of these loans and sells this ABS in the capital market – without effectively having to worry much about the 8% equity capital requirement of the Basel I/II regulations the bank can then launch a new round of giving loans to the private sector or to government. This financial innovation with ABS clearly weakens the incentive of bankers to carefully evaluate borrowers' ability to repay the loan so that there is a bias for the average loan quality to deteriorate considerably. Rajan (2005) also emphasized the fact that remuneration schemes of banks were quite similar across OECD countries and the pressure to beat the top benchmark created even more pressure for streamlining investment behaviour of bankers – so a herd mentality was encouraged. The central bankers of most OECD countries present at the Jackson Hole Meeting of 2005 did not greet Rajan's paper with interest or gratitude about the intellectual enlightenment – most central bankers simply did not want to consider the new risks that had emerged in the context of financial innovations. Bad news was not welcome.

Six notes are adequate here:

- Due to the originate and distribute model, the higher risk was no longer visible in banks' balances but it had often remained within the banking sector, since the buyers of the ABS were subsidiaries fully owned by banks: The special purpose vehicles (SPVs) organized by banks which typically gave minimum equity capital to the SPV – but a large credit line so that the SPV gets a top rating and can thus refinance the buying of ABS by issuing commercial paper at low interest rates – did not only face a largely hidden asset quality problem (unless managers really want to know about the asset quality) but also faced a maturity mismatch in the sense that they had financed buying long term ABS through short term commercial papers.
- The solution to the problem is to introduce taxation that gives an incentive to managers and bankers in the financial sector to think more about long-term realistic rates of return on equity – governments should impose a tax on the variance (or the coefficient of variation over a rolling five year period) of the rate of return on equity (Welfens 2009 and Welfens 2011).
- With the expansion of information & communication technology (ICT) funds, banks and insurance companies have launched a myriad of complex papers as financial innovations; for most of these papers there are no standard markets and hence no market prices, the value of the paper is based on complex formulae of

which a typical big bank will use several thousand. It is noteworthy that for about 80% of the papers that banks in the euro area redeem at the ECB there is no market price. This is a situation which is doubtful and obviously quite in contrast to the principles of a market economy. Nobody seems to care about this strange situation and the problems with financial innovation dynamics.

- The solution to the problem obviously would be the introduction of standardization of financial market products and the launching of a kind of patenting procedure for a certain group of highly innovative services and papers, respectively; moreover, the central banks of OECD countries should not accept papers without a market price as collateral and this then would put adequate incentives on banks to stop wildcat financial innovations.
- The potential instability problem related to financial markets is likely to become worse in the long-run – and more frequent – in mature market economies: This is due, firstly, to the rising ratio of wealth to income in OECD countries; that ratio has increased from about three in 1950 in western European market economies to about five in 2000; wealth accumulation and wealth management naturally involves banks and funds, including unregulated hedge funds; secondly, the quality-securing mechanisms in financial markets are weaker than in goods markets where exit and voice (to use Hirschman's concepts) are two key elements to cope with weak quality – if firm i offers weak quality, consumers will switch to alternative suppliers with higher expected quality, and if all or most firms offer only weak quality the consumers could publicly complain and thus make quality problems in a certain sector known in the whole society; this in turn will put pressure on firms to improve quality; thirdly, the share of intangible capital in total assets of mature industrialized market economies is rather high (World Bank 2011); and the valuation of intangible assets naturally is more complex than that of machinery and equipment or real estate. The share of intangible assets in OECD countries was 81% in 2005, while the respective share in low income economies was 57% (total per capita wealth in low income countries: US-$6 138; for the OECD: US-$ 588 315 US-$; global average: US-$ 120 475).
- Governments should encourage the creation of voice in the financial sector and the diffusion of test results of the quality of financial services – e.g. in Germany, in 2012, a test of the *Stiftung Warentest* (public foundation on product testing) revealed that a standard investment case of a typical household brought worse results than before the banking crisis: An EU directive is desirable which requires regular testing of banks' services and mandatory publication on the home page website of the banks tested and on a special EU consumer website – the latter would stand for virtual EU deepening which is a dimension that has been neglected so far.

It would be wise if the OECD and the European Union would pick up the challenges described. Simply following a business-as-usual strategy is likely to be a recipe for future disaster. As regards the European Union, the European Commission could put the topic of Sustainable Innovation Dynamics of Market Economies on both the research agenda and the policy agenda, and financial market innovations would be a natural element of this. Picking up key topics and issues in a timely fashion is a testament to political leadership and there is no reason why the EU should not be able to deliver in this field; in the US vested financial market interests might discourage policy initiatives along the line

suggested – a joint transatlantic task force could also be useful (not least in the context of the Transatlantic Trade and Investment Partnership initiative).

4.2 Deepening the European Union?

The European Union faced a crisis from 2010-2015: However, not only is the euro crisis lingering on in the form of an unsolved Greek debt crisis but the general support for the EU institutions has declined in almost all countries; in some countries this EU confidence shock is rather modest in the sense that trust in national political institutions has declined even more so (Merle 2013). However, the latter is also a problem for EU integration since the weak national governments are hardly willing and able to transfer power to Brussels for EU deepening; in fact rather opportunistic national political behaviour could be such that national policymakers will try to further trim the EU budget and take power back to the national level. Ongoing pressure from the British government for such a taking back of power from Brussels was visible in 2013-2015. The basic prerequisite for Brussels to become a stronger player in Europe again is that a strong economic upswing is achieved and that the European Commission and the European Parliament can come up with convincing fields of EU deepening; such deepening is not likely to be a realistic option if the supranational policy layer is not giving back some policy fields to the EU member countries. From an economic perspective the field of agricultural policy could be shifted to the national policy layer, however, it is not clear that all EU countries would support such a move. A deepening of the European Union can only become a viable policy option if a change in the vertical division of labour would bring major economic benefits such that the income tax rate could be reduced in all EU countries – and if an EU income tax were to be introduced, the aggregate income tax rate would have to be reduced. The key arguments for giving more power and government expenditures to the EU can be expressed as follows:

- Shifting defence expenditures to the supranational level could allow a saving on military expenditures, since a supranational government will be in a better position when buying military equipment than national defence ministers in individual EU countries.
- Shifting infrastructure expenditures – particularly for international projects – would allow not only savings on costs but also achieving the critical mass of government expenditures in Brussels that is necessary to pursue an anti-cyclical fiscal policy.
- The stabilization gains from a genuine EU fiscal policy could be considerable as one could realize a better policy mix and hence reduce the variance of output.
- The Lisbon Treaty allows the greater cooperation of a smaller group of member countries willing to consider EU deepening. Given the many opt-outs realized in the Maastricht Treaty – for the UK and Denmark – and in the Stability Pact – for the Czech Republic and the UK – there is a risk that the EU project becomes increasingly opaque for the people in the EU and for the world at large.

Even if one can present several arguments for EU deepening and a greater role of the EU, it is obvious that many counter-arguments and alternative aspects may be considered:

- There is no broad political support for EU deepening in most EU countries; e.g. the UK government would rather like to get power back to the national policy layer.
- There is a growing wave of anti-EU political parties in many EU countries.
- None of the six EU founding countries has taken the initiative for EU deepening and this implies that even among the most experienced EU countries there is almost no political will to shift more power to Brussels.
- The principle of subsidiarity has been interpreted in a way that allows the national policy layer to maximize political influence in a way that is partly not in line with dynamic efficiency considerations – one important aspect is that voter turnout would be much higher if government expenditures and tax issues were more important in Brussels than in the current regime with government expenditures of only 1%.

The debt crisis of several EU countries is often considered as standing for a particular burden on future generations. This, however, is only partly adequate a view since the younger generation is rather mobile in Europe and many young people could decide to escape from higher future income taxation by emigrating to other countries; the main burden of adjustment in a period in which policy wants to reduce the debt-GDP ratio is likely to fall mainly on retired people as, typically, pensions are cut. Facing strongly ageing populations in Spain and Italy in the period 2020-2050 the political resistance to cut the debt-GDP ratio will, however, be high as pensioners represent an increasingly large share of voters in these two countries. While the debt crises of Greece, Ireland and Portugal each represented about 2% of euro area GDP in 2011, a debt crisis in Italy and Spain would cause much bigger problems for the euro area. Implementing a debt brake in each EU country – ideally enshrined in the national constitution – thus seems to be a crucial challenge.

Some EU countries have rather high government expenditure-GDP ratios. To some extent this might reflect inefficiency in the government; but in Scandinavian countries and France there is also the particular role of large public social security systems. The opportunities to trim government expenditure-GDP ratios in principle are rather big in the field of retirement schemes; e.g. government could give tax incentives for more private retirement savings and reduce public pension schemes. However, the Transatlantic Banking Crisis has largely undermined the trust in private retirement savings and the nationalization of private retirement schemes in several eastern European EU countries also has undermined the trust of people in private retirement schemes. The unusually low interest rates in OECD countries in the five years after 2009 also create problems for making private retirement savings more attractive.

Democracies rarely embrace sweeping institutional reforms in good time; it is often only in the context of the adjustment pressure of a crisis that major institutional changes are considered and launched. This does not necessarily mean that one will have to wait for a new EU/euro crisis which would trigger broader institutional reforms. In any case it would be useful to have a blueprint for consistent politico-economic reforms in the EU. Here the European Commission could have an important role and complementary scientific analysis can be useful for creating a stimulating, broader discussion among the general public. The economic costs of Non-Political Union could be very high and here the economic analysis could make an important contribution. Basically one would combine insights from

Computable General Equilibrium Models – here the existing models would at first have to be upgraded in a way that the four economic freedoms of the EU can adequately be taken into account. So far, standard CGE Models (e.g. Mirage from CEPII) are good for analyzing trade liberalization, but capital flow liberalization – this should also include foreign direct investment flows and the activities of multinational companies, respectively – could only be analyzed within an enhanced model; this also holds for labour mobility effects. There is an additional challenge in the sense that one would have to build at least a three country model, namely Country I and II for covering EU integration and Country III as a big outsider country (rest of the world); the combination of Country I and II has to be flexible in the sense that Country II should reflect the case of a small open economy – with no repercussion effects of integration on I – or alternatively a large economy with integration repercussion effects. Additionally, it would be useful to consider the macroeconomic effects within the existing Quest Model of the European Commission.

EU deepening could be achieved in a five stage approach:

a) Stabilization of the euro area and adjusting the institutional setup towards higher credibility of fiscal discipline;

b) At the same time the development of a growth-enhancing policy in all EU member countries – this includes some active benchmarking, particularly in the use of information and communication technology; ICT technology should also be used for making EU decision making (Commission, Parliament etc.) more transparent; here the development of innovative apps for citizens is crucial

c) Creation of a group of euro countries willing to cooperate more intensively within the framework of the Lisbon Treaty; creation of euro bonds, possibly as covered supranational euro bonds.

d) Shadowing of supranational fiscal policy through strong unconditional fiscal policy cooperation of euro countries.

e) Creation of a Euro Political Union on the basis of referenda in all euro/EU countries.

A decade might suffice to implement some stages. There are few prospects for successful deepening if the EU is not going to adjust its main policy focus: More democracy, higher economic efficiency in regional/structural EU policy and a much stricter implementation of EU/euro policy principles are required. Early on it is necessary to calculate the resource-saving effects of a euro political union. As regards economic sanctions for non-compliance with fiscal rules, euro countries should put, upfront, part of their foreign reserves into a special EIB account; serious non-compliance, as defined by an Independent Expert Commission, would mean that the country will automatically lose part of the foreign reserves that had been paid up into the EIB escrow account. Without a stronger commitment from leading EU countries to European integration sustainable integration progress in Europe cannot be achieved. Solid fiscal policy would be easier to achieve once there is a Euro political union with true fiscal policy at the supranational policy layers.

4.3 Transatlantic Trade and Investment Partnership EU-USA and Integration of Integration Areas

A broad challenge for the EU is the Transatlantic Trade and Investment Partnership (TTIP) agenda. The negotiations between the EU and the US have started in 2013 and could bring considerable progress in terms of cutting non-tariff barriers on both sides of the Atlantic. The economic benefits in key industries in the EU and the US could be large (Irawan and Welfens 2014). The EU will be able to get a rather favourable outcome of TTIP negotiations only if the US considers the EU as a strong partner. As long as the euro crisis has not been overcome, and adequate EU deepening not defined, the US could have a strong strategic advantage in the negotiations.

Key issues in TTIP concern the reduction of tariff and non-tariff barriers as well as trying to define mutual recognition of standards or agreeing on principles of regulatory equivalence of US and EU rules, respectively. The role of taxation and regulation in banking is also of crucial importance and EU countries should be expected to unanimously back a common negotiation position of the European Commission. The benefits from TTIP – according to standard trade analysis – will amount to about 0.5 of gross domestic product in the EU and the US (Francois et al. 2013). However, this is likely to be a strong underestimation of the order of magnitude of TTIP benefits since the medium term effect of increasing transatlantic foreign direct investment and the long term intensification of innovation dynamics are not taken into account. If one could remove more than half of the non-tariff barriers, prices of goods in the tradable goods sector should reduce by about 3% on both sides of the Atlantic and if tradable goods represent 2/3rds of all goods the medium term impact on the aggregate price level is a fall of 2% (say over a five year adjustment period). If enhanced medium term foreign direct investment generates another plus of 1% of gross domestic product, while the long-run enhanced international technology transfer might represent 0.5% of GDP, the overall benefit could be about 3.5% of gross domestic product in both the US and the EU. The key effects of foreign direct investment and enhanced innovation dynamics have been quite neglected in standard economic analysis of TTIP (an exception to some extent is Irawan and Welfens (2014).

The EU should make clear that TTIP should be organized and implemented in such a way that the rest of the world can also expect economic benefits. TTIP could be a starting point to reinforce trade and investment relations between the EU and Mercosur and the EU and ASEAN etc. The integration of integration areas should be a new topic on the future agenda of the EU.

5. Reform Programme for the EU: Towards a Political Union

5.1 Basic Issues Relevant for a European Political Union

EU integration has become more complicated in the context of enlargements and EU deepening. This undermines the political support for integration in Europe. From a politico-economic perspective a more complex integration area should be better and more thoroughly explained to the public – but no major increase in the EU budget in this field has been realized. It is necessary to simplify and streamline economic policy-making whenever possible. Here, there are key challenges as simply reading text from various DGs reveals: The widespread use of cumbersome abbreviations makes most EU publications impossible to understand for ordinary citizens. It is an easy reform task for the Commission to correct this and the European Parliament should push stronger for such reforms in the future. Less bureaucracy is one element of improving the EU administration, but a general switch to simplified language is also recommended.

The supranational expenditures relative to GDP have for decades stayed around 1%. It is totally implausible that the optimum government-GDP ratio should be 1% for a group of six countries (1958) and still 1%for a group of 28 countries as well (since July 1st, 2013). The structure of EU expenditures is such that there is almost no redistribution and for macroeconomic stabilization the size of the budget is much too low; a typical recession will witness an increase of government expenditures by 0.5 to 1% of GDP and up to 2% in a very serious economic downturn. The main EU categories bring redistribution between countries – increasingly over time – where the main recipient countries are Greece, Portugal, Ireland and Spain, the main contributors (on the basis of contributions relative to GDP) were in the 1990s the Netherlands, Germany, Luxemburg and Sweden (Domenech and Maudesu and Varela 2000).

Theory of Fiscal Federalism and its Implications

Taxation in a vertical government perspective should be governed by simple principles:

- The *theory of fiscal federalism* (e.g. Oates 1999) suggests that on efficiency grounds mobile units should pay taxes for benefits obtained – in this perspective local government should set adequate prices; here property taxation can play an important role (e.g. a city that has built a dam should charge implicit flood protection prices that are proportionate to the market value of the house).
- Federal grants given to states (looking at the US context) should be such that spillovers are adequately internalized. Setting aside EU agricultural expenditures that certainly do not reflect spillover aspects, the supranational EU level effectively gives grants of 0.6% of EU GDP and this is certainly totally inadequate if spillovers are to be internalized. One may argue, of course, that so far the member states themselves have created adequate vertical fiscal systems. However, the EU single market has changed the game in the sense that e.g. R&D subsidies in Germany, France, the Netherlands or Sweden will create large spillover effects for other countries so that in a US-like EU political union Germany should get some extra supranational funding as a compensation from Brussels; otherwise the aggregate

innovation activity of the EU will be suboptimal and the growth rate of output lower than in an optimum taxation regime.

Taxation for the purpose of income redistribution is one standard argument for government activities, however, looking at the US raises interesting observations and reflections:

- As regards redistribution via taxation Feldstein and Vaillant Wrobel (1998) published empirical evidence that suggest that state government attempts to redistribute income are not really successful: The evidence presented shows that net-of-tax relative wages of skilled versus non-skilled workers are hardly affected by progressive income taxation in the US, and the main reason for this is labour mobility across state borders.
- In the EU labour mobility across countries is smaller than in the US and this might explain why EU countries have a larger political propensity for income redistribution than the US.
- Recent evidence (Niehues 2013) has shown that the efficiency of redistribution is weak in some EU countries – in France, Bulgaria and Cyprus the post-tax income position of the top quintile was better than before taxes in 2009.
- In a political economy perspective one may instead raise the question of the tax revenue-maximizing income tax – the answer in a setting with a Cobb Douglas production function is that this tax rate (pushed for by bureaucrats) is equal to 1 minus the output elasticity of capital (Welfens 2013b, p. 49); the expansion of information and communication technology could be associated with a rise of the output elasticity of capital and this could reduce the pressure for big government in advanced countries.

It is adequate to reform the vertical political division of labour which, in budgetary terms, is strange: roughly 40% of the EU budget is spent on agriculture while the share of value-added of this sector is below 2% in the EU and hardly any positive external effects are recorded in agriculture. Almost nothing is spent on infrastructure and zero on defence - this makes the EU budget structure look very strange in comparison with the US. Simply sticking over decades to the inherited vertical division of labour is, of course, inadequate in the context of the euro crisis which has involved big expenditure cuts at the national level in many euro countries. The EU Summits of 2013 have adopted the strange philosophy that expenditures at the supranational layer should also be cut. Instead, one should have raised the question about an optimal vertical division of government expenditures and about other key aspects of a euro political union: Higher expenditures at the supranational level would be adequate as is shown subsequently. The increased role of EU summits is also undermining the Community and politically reinforcing economic nationalism – a weaker Community will be neither an influential player in negotiations with the US nor be taken very seriously by countries such as China and Russia (the Ukraine Crisis shows this and how weak the EU is).

Oates (1999, p.1121-1122) summarizes the key insights from fiscal federalism – the normative theoretical basis for designing adequate vertical assignment of tasks and expenditures, respectively - as follows:

"The traditional theory of fiscal federalism lays out a general normative framework for the assignment of functions to different levels of government and the appropriate fiscal instruments for carrying out these functions... At the most general level, this theory

contends that the central government should have the basic responsibility for the macroeconomic stabilization function and for income redistribution in the form of assistance to the poor. In both cases, the basic argument stems from some fundamental constraints on lower level governments. In the absence of monetary and exchange-rate prerogatives and with highly open economies that cannot contain much of the expansionary impact of fiscal stimuli, provincial, state, and local governments simply have very limited means for traditional macroeconomic control of their economies. Similarly, the mobility of economic units can seriously constrain attempts to redistribute income. An aggressive local program for the support of low-income households, for example, is likely to induce an influx of the poor and encourage an exodus of those with higher income who must bear the tax burden...In addition to these functions, the central government must provide certain "national" public goods (like national defense) that provide services to the entire population of the country.

Decentralized levels of government have their raison d'etre in the provision of goods and services whose consumption is limited to their own jurisdictions. By tailoring outputs of such goods and services to the particular preferences and circumstances of their constituencies, decentralized provision increases economic welfare above that which results from the more uniform levels of such services that are likely under national provision. The basic point here is simply that the efficient level of output of a "local" public good (i.e., that for which the sum of residents' marginal benefits equals marginal cost) is likely to vary across jurisdictions as a result of both differences in preferences and cost differentials. To maximize overall social welfare thus requires that local outputs vary accordingly."

By overemphasizing a static principle of subsidiarity, the EU has prevented an adequate fiscal federalist structure: Adding up 1.5% of GDP for defence and 1.5% for infrastructure gives 3%, plus regional funds and structural funds plus agricultural subsidies would give at least 4% - four times the actual ratio of government expenditures in Brussels relative to GDP. The supranational euro level does not have defence on the agenda so far, redistribution is minimal – except between member states and regions, respectively – and fiscal policy none existent. Except for tariff revenues, the EU has no distinct source of revenue. In terms of fiscal federalism, the EU is largely economic nonsense; a euro political union could be a step towards correcting this and, thus, to create massive welfare gains.

Moreover, there is an EU single market but no integrated social security system that really makes the EU labour market a truly integrated one. A worker might have been consecutively employed for two years in each of the 28 EU member countries and in the end there is no cumulated fair entitlement for pension payments: The legal entitlement indeed could be zero.

Shifting Balance of Power within the EU

The euro crisis has unveiled structural problems in the euro area but it also has brought about a shifting balance of power within the EU:

- The euro crisis has shifted the balance of power in the EU in favour of the European Summit.

- The increasing power of the European Summit comes at the expense of the European Commission and reinvigorates nationalism to some extent – namely as a consequence of weakening the European Union. The fact that the political support for EU institutions has weakened in the EU during the euro crisis is an alarming signal; while one might point out that political support for national institutions has declined even more so in many countries, a general undermining of trust in political institutions in Europe is showing problems in political governance and legitimacy at EU level.
- Restoring trust and political support for the EU requires a refocus of policy activities of the EU in key fields and avoid activities in policy areas of non-relevance for the European Union – e.g. the regulation of oil carafes in restaurants which was given up as a project only after much public discussion in the EU in 2013.
- The Greek deficit fraud of 2009 – an election year – and the non-application of EU prudential supervision legislation in Ireland has shown that political moral hazard and free rider attitudes of a few EU countries can thoroughly undermine the economic and political stability of the whole euro area; and the euro area and the EU must successfully cope with these problems if the long term viability of the euro area is to be achieved.

The complex policy pattern in the euro crisis has reinforced the impression that economic policy in the EU is opaque and difficult to understand for ordinary citizens. The Commission should start an initiative in which decision-making in the European Union is better explained and through which decision-making processes become more transparent and simplified wherever possible. More transparency is also crucial in the political process among EU institutions; for example the negotiations on the Transatlantic Trade and Investment Project (TTIP) with the US should be organized by the Commission in such a way that both the European Parliament and the EU public get clear and timely information about the status of key negotiation areas; and about medium and long-term impact studies of TTIP which go well beyond the pure trade dimension.

The EU and euro area should have the ability to implement Pareto-improving international cooperation and to prevent member countries from free-rider attitudes and political moral hazard behaviour (a natural problem in a club with ever more countries and a weak centre).

(1) Big international cooperation projects which bring considerable economic benefits – such as TTIP – face uncertain political support in the EU, not least since the European Commission is weak in explaining even a very reasonable project such as TTIP to the general public: Adopting measures for simplifying and making EU decision-making and EU economic policy more transparent while re-focussing the role of the EU summits are crucial elements to be implemented. European integration issues have become rather complex over time and the Commission has neglected the task to keep projects relatively simple and understandable. Clearly, with 28 countries, the EU is much more complicated to organize than the initial group of six countries.

(2) It is of paramount importance that a repetition of the Greek deficit fraud of 2009 is ruled out in the future. This can be ruled out only if massive exceeding of the deficit-GDP limits and excessive debt-GDP ratios of EU member countries translate into bankruptcy while not allowing government (broadly defined) to collapse - much higher supranational government outlays (lower national outlays relative to GDP) are necessary and the

introduction of new key principles of social security policy in EU countries and of a minimum EU unemployment insurance for six months with expenditures of about 0.5% of GDP.

(3) If the supranational expenditures would be raised to about 6% of GDP – mainly on the basis of infrastructure expenditures, defence expenditures, R&D expenditures as well as traditional EU expenditures – one would have the fiscal basis for a euro political union in which Brussels can effectively implement countercyclical economic policy and ensure a consistent policy mix;

(4) If the Greek deficit fraud of 2009 would occur, the country would go bankrupt, but the combination of (2) and (3) implies that highways would still be built, unemployment compensation paid and the political fall-out of such national political mismanagement would not derail the whole euro system: With that perspective in mind no political leader at the national level would have an incentive to repeat the Greek case of deficit fraud of 2009; prudent fiscal national behaviour would be reinforced if true euro area parties would be established – if the natural political goal for all national political leaders would be to finally become the head of a euro area government (or the head of the political opposition in a Euro Parliament) the incentive to ruin one's own career prospects by very high national deficit-GDP ratios would be zero so that free-riding behaviour and moral hazard would be reduced.

(5) With respect to raising the budget volume in Brussels strongly, there is a natural caveat: One could not spend about 6% of GDP in Brussels without having adequate political legitimacy so that a Euro Political Union is required in the long run; there is a need for a Euro Parliament that would elect a Supranational Government and which could impose Euro taxation, Euro Bonds and also a supranational deficit provided that deficits could be incurred only for financing public investment and if a supranational debt brake – limiting the structural deficit-GDP ratio to 0.5% (outside major recession) - would be implemented.

More efficiency in intra-EU regional transfers is required and more investment in city twinning programmes (the EU27 had about 40 000 in 2013) could be quite useful – this building of Europe from the 'bottom up' is quite crucial to avoid the picture of EU integration as being organized as an elite project. At the same time one should not overlook that tensions in the social fabric of euro member countries differ considerably. If one looks at production lost from strikes per 1 000 workers:

Table 1: Strikes and Lockouts, Rates of Days not Worked per 1,000 Employees, 1999-2008 (ordering for 2006)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
France							151	116		
Cyprus				20,1	29	37,2	66,2	110,3		
Canada	203,831	132,69	173,843	229,76	130,39	236,034	303,67	56,693	124,248	60,405
Spain	102,4	233,3	119,1	297,4	45,8	248,9	50,1	47	58,3	74,5
Italy	60,627	57,875	65,618	304,918	121,656	43,344	54,848	32,794	52,617	
Finland	9,5	110	25,6	31	28	18	280,3	29,9	37,9	6,5
United Kingdom	9,638	19,44	20,206	50,73	19,089	34,351	6	28	38	28
Germany	2,3	0,33	0,82	8,9	4,8	1,3	0,5	12,4	8,1	3,7
Hungary	89,9	55,1	2,848	0,503	0,881	6,8	0,352	2,33	10,09	
Switzerland	0,7	1,2	4,8	5,1	1,4	9,3	0,3	1,8	1,6	3,1
Slovakia	0	0	0	0	0,002	0	0	0,007	0	0
Latvia	37,3	0	0,007	4,2	0	0	0	0	0	3,2
Lithuania		10199	2155	0	0	0	0,773	0	8214	27087
Lithuania				4,2	0	0		0	8214	27087
Poland	11	8			1	1	0	0	2	28

Source: ILO LABORSTA Database, http://laborsta.ilo.org, 19.03.2014

Among the reforms to be considered are:

(6) The cutting of EU regional funds in order to raise the efficiency of EU regional and structural policies. There is a need for launching a special, coordinated programme on training, retraining and skill-upgrading in the EU; here EU benchmarking could be useful and the EU should allocate funds for active benchmarking, namely that weaker regions successfully imitate the programmes of more successful regions. The allocation of regional funds by the EU is rather inefficient (Becker et al. 2010) and certain countries stand for a rather high share of violations of basic EU rules; the European Court of Auditors so far is not really critical with EU member countries violating the rules of the EU. This is a problem to the extent that in a future European political union the share of government expenditures at the supranational level would have to strongly increase – but this cannot be recommended unless the spending of funds by EU member countries is generally in line with the rule book of the EU.

(7) Starting a new programme for EU city twinning which should have a particular focus on Eastern Europe and the UK – the bottom-up approach of European integration is crucial for first-hand positive experiences of people with EU regional integration (previously city-twinning was a political priority for the EU, but in the late 1990s political support and budget funds declined); more city twinning between EU cities and cities in Russia, Ukraine etc. could also be considered as a strategic policy element.

(8) A continuous focus on ICT expansion, including the introduction of identical budget software in all euro countries, as a means to reinforce the transparency of fiscal policy and to raise the credibility of the Fiscal Pact and the Stability and Growth Pact, respectively. The role of information & communication technology has been emphasized by the Commission since the Lisbon Agenda 2010. However, the Lisbon Agenda was, in part, poorly implemented and the macroeconomic implications of ICT expansion – in an environment with absolutely falling ICT investment goods prices – are not adequately taken into account. Measured in real terms, real investment relative to real GDP is much higher in many EU countries/OECD countries than the nominal share of investment in nominal GDP: The true investment/GDP ratios – based on real figures – are about 2 percentage points higher in Germany and the US than the nominal share suggests; this implies that the alleged weakness of investment in Germany is smaller than suggested by

many economists. The internet is used by people to find a new job in all OECD countries but the leading country for finding new jobs via the internet is Canada (OECD, 2013) – with Germany and France trailing far behind. The situation is much worse in Italy, Spain, Portugal and Greece. Here, the EU could encourage an active OECD benchmarking initiative that should stimulate the use of digital internet-based matching technology.

(9) Starting a new programme on the full integration of energy markets in the EU and adopting a globally oriented EU climate policy: The Commission has pushed for many years for an integration of energy markets in the EU, but only limited progress has actually been achieved. There is not much benchmarking of renewable energy and not much attention has been devoted to the inefficiencies of energy policies in certain countries; e.g. Germany where the annual cost for the renewable charges faced by households and companies will amount to about € 25 bill. in 2015.

Given the rather low specific CO2 emissions of gas it would make sense to substitute coal in electricity production with gas in the EU and worldwide. If the share of coal in electricity production could be reduced by 1%, and replaced by gas, this would be equivalent to an increase of the share of renewables in global energy production of 11% (Rühl 2014).

The increasing transatlantic electricity prices will create certain problems in the context of TTIP. The following table shows how far electricity prices differ within the EU and between EU countries and the US – the rising gap in favour of the US will undermine the international competitiveness of producers of energy-intensive products in Europe (e.g. the ratio of industrial electricity prices in Germany exceeded that of the US by 70% in 1978, in 2000 the price level in Germany was 12% below that of the US, by 2009 the price level in Germany was 105% higher than in the US, in 2012 the price ratio was 2.22).

Table 2: Electricity prices for industry in US dollars/MWh in the US and in Selected EU Countries

	1978	1980	1990	2000	2007	2008	2009	2010	2011	2012
Germany	47,42	57,59	91,28	40,55	108,90	128,95	139,55	135,83	157,23	148,72
USA	27,90	36,90	47,50	46,00	63,94	68,28	68,12	67,89	68,21	66,98
Price relation Germany/USA	1,70	1,56	1,92	0,88	1,70	1,89	2,05	2,00	2,31	2,22
Italy	43,15	65,16	97,58	88,94	236,99	289,81	276,15	258,09	279,31	291,79
Netherlands	31,16	59,20	52,30	57,05	120,75	132,90	128,65	116,09	118,48	109,51
Spain	27,98	44,32	97,39	42,58	89,59	125,15	103,15	131,88	148,77	k.A.
UK	37,98	62,76	70,69	55,40	129,88	145,94	134,29	121,06	129,49	134,17
France	32,41	47,98	56,39	35,76	92,19	104,83	106,70	106,95	121,54	116,33

Source: IEA (2013), Electricity Information 2013, Paris.

The variance of regional energy prices in the EU is large – it could be smaller if the EU single energy market would be fully implemented; a fully integrated single energy market would also imply a lower average EU electricity price and this in turn would imply a rise of equilibrium output and possibly an improvement of the EU current account. If one compares the interregional electricity price variance in the US (based on prices of electricity in US states), the variance is only slightly smaller than in the EU. One should, however, not overlook the fact that the German energy turnaround has created a problem for the European Commission which considers the exceptions from the special renewable

energy surcharge for big firms as a discrimination that is inconsistent with EU single market rules: The German energy turnaround is associated with high feed-in tariffs for renewable energy and a special surcharge on the electricity usage of households and firms, with exceptions for big electricity consumers in the export sector. Subsidies (collected via electricity bills) have amounted to about € 20 bill. in 2013, the market value of the electricity produced by solar power and wind power in Germany was only about € 2 bill.; adding to this the market value of CO emissions avoided – on the basis of the all time high of € 30/ton – of roughly € 1 bill., which still leaves the impression of the massive economic inefficiencies of the energy U-turn in Germany: investing € 20 bill. for a € 3 bill. benefit means squandering a large amount of funds and resources; more efficient feed-in tariffs are possible.

Besides efficiency considerations, one may emphasize that EU member countries should have some policy autonomy in environmental policy. At the same time it is clear that all EU countries should respect EU single market rules so that energy policy designed to encourage renewable energy also faces constraints which should be respected. While one can raise critical objections against Germany's course in the promotion of renewable energy, one should not overlook the fact that feed-in tariffs stimulate the exploitation of static and dynamic economies of scale so that world market prices e.g. of solar panels and wind power mills should decline over time – Germany's policy could thus also affect renewable energy investment outside Germany and the EU, respectively. A particular problem of Germany's feed-in tariff scheme is that the implicit fixed per unit subsidization is not declining over time, so that the innovation incentive is rather modest. Looking at Germany's renewable energy policy, and given the geographic and climate situation of Germany, it is rather surprising that German policymakers have strongly encouraged the expansion of solar energy and not so much that of wind energy where Germany's comparative advantage is rather high; if the EU energy market were fully integrated and efficiency considerations would be taken seriously, German taxpayers would rather subsidize solar power expansion in Greece, Spain or Portugal, instead of strong solar energy expansion in Germany.

5.2 New Aspects of the Euro Area: Towards a Political Union

A very important element in a Euro Political Union that has a clear economic and political logic is to adjust national seats in the Euro Parliament in accordance with the number of people living in a Euro country; a second Chamber representing member countries also will be required. As regards voting for the Euro Parliament there could be a simple rule, namely one seat for every million citizens (or a similar order of magnitude) – and at least one seat for each country. The number of seats for each country should automatically adjust to the number of the population in the country: Thus countries with poor government performance and economic crisis that will face emigration pressure will lose influence in the European Parliament while those countries attracting immigrants will gains political influence.

The Euro area needs the creation of euro bonds, otherwise the European Central Bank would not even have the basis for a consistent open market policy or some form of Quantitative Easing (QE) – the latter stands for an expansionary open market policy in an environment of already very low central bank interest rates; also, the incipient pressure for

deflation in 2014 makes it necessary to create Euro Bonds, otherwise the ECB would have to buy national euro bonds from all Euro countries within a QE-approach. The ECB, as a central bank, should not have less policy options than other leading central banks in the OECD; like say that of the US or the UK. However, the creation of supranational euro bonds is not only a political decision, it requires that an attractive market be created for euro bonds. Thus one should consider

(10) the launching of supranational euro bonds with an exclusive maturity range of 10 years+ in the euro area – for this project a Euro Area Investment Bank should be created (possibly as a sub-unit of the EIB, based on a separate treaty between euro area countries); such a political project requires careful organization, there is no doubt that it would bring major benefits, since banks would have an asset with full implicit risk diversification in the euro area. However, euro bonds will only carry low interests if a supranational policy layer has the right to tax – if necessary to guarantee payment of principal and interest on euro area bonds. With low real interest rates in the whole euro area there will be prospects for higher growth, however, there also will be the need to avoid the challenge that primarily consumption is increasing (as it has been in the case in the first decade of the euro in some southern euro area countries); government always has the option to impose higher value-added tariff rates as a means to reduce consumption.

Additionally, it is necessary to consider the problems and opportunities of a potential future euro political union. Hence one may suggest to

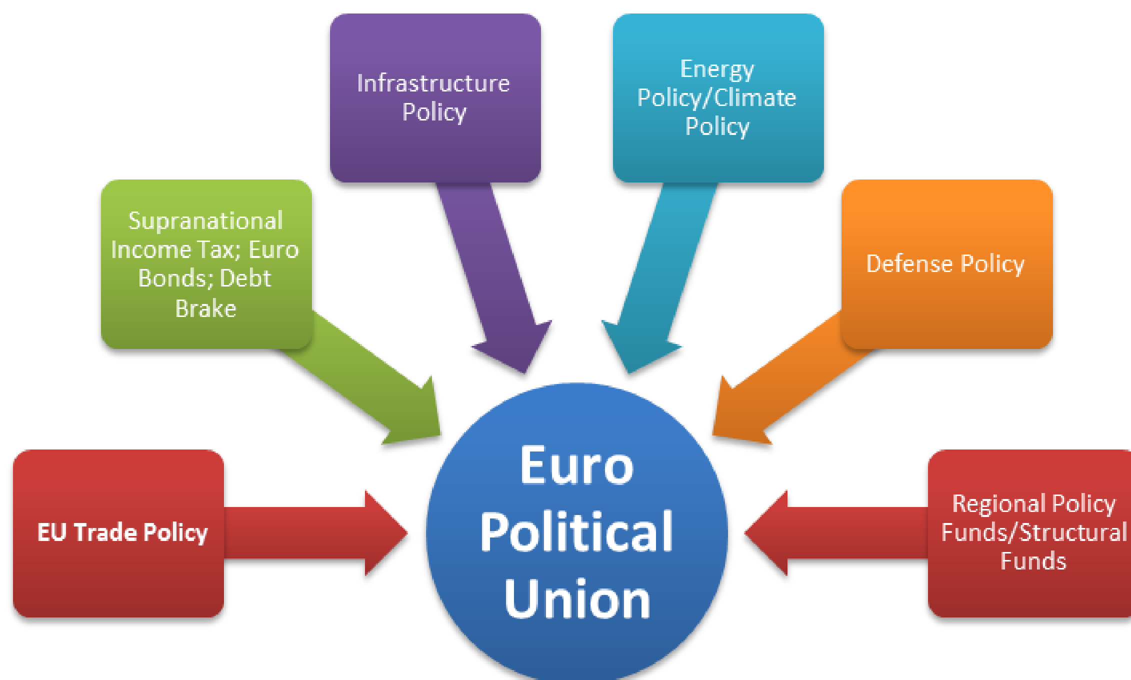
(11) start a broader discussion about a euro political union, including the implications for a supranational tax system and the role of the euro area in international organizations; the concept of a euro political union clearly requires a true parliamentary system in which there is not only a government and a parliament with competing parties (a government camp facing a well organized opposition) – it also will be necessary to have the right to tax at the supranational level and, with the taxable income broadly defined, the income tax rates can be rather low. The finding of Becker et al. (2010) that 50% of EU regional funds have no effect in the recipient regions makes it quite important to massively improve the governance structures in Brussels and the quality of fiscal policy on the expenditure side, otherwise one cannot support a strong supranational increase of government expenditures relative to GDP which indeed is adequate for a more effective fiscal policy in the euro area. Tax base broadening along with reduced income tax rates is conducive for economic growth and also reduces the size of the shadow economy whose productivity typically is much lower than that of the official economy. Only if there is a supranational debt brake and if a euro area parliament would have the right to tax, can euro bonds be expected to carry very low real interest rates. It is noteworthy that Germany's Constitutional Court removed the 3% minimum vote requirement in European elections in 2014 – here the Court has indeed pointed out that the current European Parliament is not working like a normal parliament, since the EP largely stands for all major parties joining together in a power brokerage vis-à-vis the European Commission which has wide executive as well as legislative powers.

At the global level, the EU should not only try to conclude a TTIP agreement with the US, but the European Union would also be wise to consider the careful creation of a club of integration clubs. Hence one should

(12) start a broader political discussion about the project of a transatlantic free trade area and the prospects of EU globalization management through a specific EU strategy for cooperating with other regional integration schemes: e.g. EU-Mercosur or EU-ASEAN. An EU-Mercosur hybrid community should be rather easy to achieve since both the EU and the Mercosur are customs unions – so all countries of the respective integration clubs share a common external tariff. If the EU could build broad relations between the EU and Mercosur, the EU and ASEAN etc., one could indeed use integration clubs as building blocs for global economic liberalization and cooperation. In a successful integration of integration clubs approach the most important field of cooperation would concern competition policy. Here the EU should take the initiative and push for more intensive policy dialogue in the international arena; if similar concepts of competition policy would be adopted in various integration clubs effective global competition policy will be reinforced and this will be to the advantage of the consumer; moreover, excessive lobbying pressure by big multinational companies would be rather limited in such a setting and this also could generate welfare gains.

As regards a future euro political union, there are several elements that should be carefully considered.

Figure 3: Euro Political Union



The discussion about a political union in the EU has witnessed several contributions (e.g. Spinelli Group, 2013)

A Euro Political Union could be created in the medium term where key elements would be:

- The traditional supranational trade policy; here the adequate overlap between the euro area and the EU is unclear.
- A Euro Area Parliament (to what extent this would have an overlap with the EU Parliament remains to be determined)

- The Euro Area Parliament should have the right to tax in the fields of income and cross-border pollution emissions (this includes CO2 taxation); a standard corporate tax rate should be fixed where member countries should have the right to impose a bonus of up to 5% - so if the standard corporate tax rate were 15% the effective national minimum corporate tax rate would be 10%. With taxation partly implemented at the supranational level, one can implement tax base broadening and thus can reduce the (overall) income tax rate/corporate tax rate so that a fairer and more effective tax system would be achieved than in the EU framework. If the tax revenue from emissions would amount to 1% of GDP at the supranational level the average income tax rate in Brussels would have to be close to 4.5% of GDP – assuming that government expenditures in Brussels would amount to about 5.5% of GDP (0.5 % of GDP would come from unemployment insurance contributions).
- Infrastructure expenditures would be largely shifted from the national level to Brussels – this should represent about 1.5% of GDP. Assuming 1.5% of GDP also for defence, 0.5% for R&D promotion in the field of the military, energy, ICT and the environment, 0.5% for life-long learning and mobility/retraining of workers, 1% for the traditional EU expenditures and 0.5% for covering the first six month of unemployment insurance the budget at the euro political layer would sum up to about 6% of GDP. This is sufficient to shift counter-cyclical fiscal policy to the supranational (euro) policy layer in Brussels. A debt brake based on a maximum structural supranational deficit-GDP ratio of 0.5% would be useful, at the national policy layer a maximum structural deficit-GDP ratio of 0.25% could be allowed so that the debt-GDP ratio of the overall euro area would have a long-term steady state value of 0.5 if one assumes a trend output growth rate of 1.5% - this follows from the Domar formula according to which the long-run debt-GDP ratio is determined by the ratio of the deficit-GDP ratio to output growth. In the medium term the supranational structural deficit-GDP limit could be rather 0.45%, and that for the national policy layer 0.3% (the sum adding up again to 0.75%). As regards the actual deficit rules of the euro area, there is some inconsistency: It should be noted that the 3% deficit-GDP limit of the Stability and Growth Pact could be in contradiction to the 0.5% maximum structural deficit-GDP ratio of the Fiscal Pact and this inconsistency creates new credibility problems in the field of fiscal policy of the EU. Comparing the US to the Euro Area it should be noted that – according to CBO figures – the share of US federal government expenditures as a percentage of GDP was 20.8% in 2013; deducting the federal social security expenditures the US federal government expenditure-GDP ratio was 11% in 2013.
- Allard et al. (2013) estimate that a 1% negative shock to the national GDP reduces consumption in the US by 0.2%, but in the euro area by 0.6%. At the same time the authors point out that, via soft loans to crisis countries – e.g. on the basis of Emergency Liquidity Assistance (ELA) for banks, creditors and current account surplus countries implicitly generate transfers to the crisis countries of 0.75%-1.25% of GDP of the crisis countries (ELA means that the national central banks can create central bank money on the basis of collateral obtained from banks even if the quality of the collateral is not considered as acceptable by the ECB; the latter can prevent ELA only if there is a 2/3rd majority of the board against ELA in a specific country).
- A large share of public infrastructure policy should be shifted to Brussels once a Euro Political Union has been created; the structural deficit-GDP ratio allowed at the level of member countries should be close to zero in the long-run and this

would make EU countries more similar to US states who also face clear deficit limitations. As regards shifting infrastructure policy expenditure to the supranational level, this could indeed be an ideal way to improve opportunities for a counter-cyclical policy and a more coherent policy mix in the euro area (and the EU). If a political union would be created, this should include the right to tax (income tax, cross-border emission tax), euro bonds would be created and unemployment benefits would be financed for half a year. This at least is the conclusion that one can draw from the US experience where the US Council of Economic Advisors (2013, chapter 3) has looked into the cyclicality of government expenditures at the state level. Except for current expenditures, such as medical expenditures and highway expenditures – (see subsequent table), most of the state government expenditures was found to be pro-cyclical.

The current EU political system is organized in an unusual way since the European Commission is not only the executive institution of the European Union but also initiates EU legislation; the European Parliament is not organized on the principle of a governing party and opposition, rather the leading parties typically form one coalition in order to negotiate with the Commission a compromise in legislation. This institutional construction is not only counter to the standard institutional setup in a parliamentary democracy, it also raises the risk that a wave of anti-EU parties will grow in all EU countries – such parties pick up criticism about the EU on the right-wing or left-wing while an alternative two party system (to pick a simple model) would pick up the anti-EU criticism within the two parties. Thus the EU political system resembles Switzerland, but without a strong referendum element.

A political union can be achieved only in the long run, however, a kind of virtual fiscal political union could be built, namely as a joint policy coordination platform in Brussels that coordinates at least all major public investment projects in the EU – certainly with projects for Trans-European networks and digital modernization (international broadband investment projects) as a joint top agenda item supported by the European Commission. It seems fairly clear that only by strengthening the Commission and the European Parliament can the efficiency of fiscal policy be improved.

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