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The euro crisis remains unresolved even as financial markets may seem calm for now. The current euro regime is inherently flawed. Recent reforms have failed to turn the dysfunctional euro regime into a viable one. The investigation is informed by the "cartalist" critique of traditional "optimum currency area" theory (Goodhart 1998). Various proposals to rescue the euro are assessed and found lacking. A Euro Treasury scheme operating on a strict rule and specifically designed not to be a transfer union is proposed here as condition sine qua non for healing the euro's potentially fatal birth defects. The Euro Treasury proposed here is the missing element that will mend the current fiscal regime that is unworkable without it. The proposed Euro Treasury scheme would end the currently unfolding euro calamity by switching policy from a public thrift campaign that can only impoverish Europe to a public investment campaign designed to secure Europe's future. No mutualization of existing national public debts is involved. Instead, the Euro Treasury is established as a means to pool eurozone public investment spending and have it funded by proper eurozone treasury securities.

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JEL classifications: E02, E42, E58, E61, E62, F36, G01

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Lost at Sea:
The Euro Needs a Euro Treasury

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The euro crisis remains unresolved even as financial markets may seem calm for now. The current euro regime is inherently flawed. Recent reforms have failed to turn the dysfunctional euro regime into a viable one. The investigation is informed by the "cartalist" critique of traditional "optimum currency area" theory (Goodhart 1998). Various proposals to rescue the euro are assessed and found lacking. A *Euro Treasury* scheme operating on a strict rule and specifically designed not to be a transfer union is proposed here as condition sine qua non for healing the euro's potentially fatal birth defects. The Euro Treasury proposed here is the missing element that will mend the current fiscal regime that is unworkable without it. The proposed Euro Treasury scheme would end the currently unfolding euro calamity by switching policy from a public thrift campaign that can only impoverish Europe to a public investment campaign designed to secure Europe's future. No mutualization of existing national public debts is involved. Instead, the Euro Treasury is established as a means to pool eurozone public investment spending and have it funded by proper eurozone treasury securities.

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1 Introduction

Europe's currency union remains stuck in existential crisis. The ECB's conditional liquidity-support promise has not fundamentally changed that position at all. This study investigates the relation between the euro regime's track record of instability and vulnerability to severe crisis and the peculiar fact that the euro regime features a currency union without fiscal union. Various proposals featuring a move towards a fiscal union of some kind will be assessed in an attempt to develop clearer views as to the requirements of a minimalistic but functional fiscal union necessary to sustain the euro and achieve a more favorable economic performance.

The investigation is informed by the "cartalist" critique of traditional "optimum currency area" (OCA) theory (Goodhart 1998). Focusing on transaction costs and rigidities, OCA theory follows a "one market, one money" vision in currency matters. Asymmetric shocks are identified in the traditional OCA literature as the key risk that could undermine a currency union. Structural reforms to liberalize and flexibilize markets are deemed the way to go. Later mutations of this approach suggest that the credibility of monetary and fiscal policies would add stability to the policy regime. Macroeconomic policies focused on price stability and constrained by balanced-budget rules suggest themselves as "sound", on this view.

Arguably, the preoccupations of OCA theory have been of rather limited value in understanding the eurozone's malperformance and tendency to crisis. The immediate causes of the ongoing euro crisis were neither some exogenous asymmetric shock nor fiscal profligacy. Rather, the regime's foremost failures were, first, to provide a sufficiently powerful defense against *symmetric* shocks, second, to prevent the emergence and endogenous propagation of intra-area divergences with a corresponding buildup of imbalances, turning into an avoidable asymmetric shock in due course and, third, to resolve the crisis that arose as these key regime failures proved self-reinforcing and doubly-destabilizing.

The cartalist critique of OCA theory emphasizes that the eurozone's uncoupling of the central bank and treasury not only represents a conspicuous exception to the "one nation, one currency" rule observed around the world, but also the ultimate source of the currency union's vulnerability. This peculiar divorce severely undermines the mutual strengthening-by-joining-powers effect normally enjoyed by the treasury-central bank axis in the currency and public finance spheres of sovereign nations: the treasury is strengthened by the central bank's underwriting of liquidity while the central bank's firepower as lender of last resort is strengthened by the treasury's fiscal backing ("deep pockets") too.

A *Euro Treasury* scheme specifically designed to be not a transfer union is proposed here as condition sine qua non for healing the euro's potentially fatal birth defects. While nicely capturing the conventional wisdom on the matter, Wyplosz (2013, p. 30) misses the point in asserting that "the very existence of a sovereign debt crisis in the Euro Area is just the latest available proof that the European model has failed to establish and enforce fiscal discipline." The current euro regime, including recent reforms, is inherently flawed. The Euro Treasury proposed here is the missing element that will mend the current fiscal regime that is unworkable without it. The proposed Euro Treasury scheme would end the currently unfolding euro calamity by switching policy from a public thrift campaign that can only impoverish Europe to a public investment campaign designed to secure Europe's future.

The analysis starts with a performance review of the eurozone under the euro regime in section 2. Section 3 then revisits the theoretical foundations of the current euro regime, focusing on the cartalist critique of OCA theory. Section 4 discusses the allocation of public finance functions currently in place in Europe's currency union compared to the situation in the U.S. and Germany. Various reform proposals to overcome the crisis and/or fix the euro regime, ranging from discretionary stimulus programs to public debt mutualization schemes and more comprehensive regime changes, are then assessed in section 5. Section 6 presents the establishment of a Euro Treasury as condition sine qua non while the essential role of the Euro Treasury in turning the common currency into an engine for joint prosperity are discussed in more detail in section 7. Section 8 highlights that the proposed Euro Treasury plan would also make a decisive contribution to recovery and rebalancing. Section 9 concludes.

2 Economic and monetary union has failed dismally

The Commission of the European Communities' study "One Market, One Money" published in 1990 in promotion of the project promised that the common currency would further boost the manifold benefits of the common market. More specifically, the promised amplification of benefits would not only arise through a further reduction in transaction costs, but also because of the specific design of the Maastricht regime of EMU itself. The foreseen changes to Europe's economic policy institutions would yield extra benefits owing to the supposed superiority of the new macroeconomic policy regime – featuring an independent supranational central bank conducting "stability-oriented" monetary policy joined by "disciplined" national fiscal policies.

Between 1999 and 2008 the European Union's (EU) policy authorities never tired of boasting what a marvelous success story the euro was and what plentiful benefits it was bringing to Europe, and supposedly the world at large too. Remarkably, even as the global financial crisis was already smoldering for an extended time, EU Commissioner for Economic and Monetary Affairs Joaquín Almunia (2008) proudly declared in the foreword to the official "euro@10" anniversary volume on the supposed euro success story:

> "A full decade after Europe's leaders took the decision to launch the euro, we have good reason to be proud of our single currency. The Economic and Monetary Union [EMU] and the euro are a major success. For its member countries, EMU has anchored macroeconomic stability, and increased cross border trade, financial integration and investment. For the EU as a whole, the euro is a keystone of further economic integration and a potent symbol of our growing political unity. And for the world, the euro is a major new pillar in the international monetary system and a pole of stability for the global economy. As the euro area enlarges in the coming years, its benefits will increasingly spread to the new EU members that joined in 2004 and 2007."

In the fall of 2013, it is all too clear that the euro's promise of shared prosperity and stability remains wholly unfulfilled. In fact, while the world economy has in good part recovered from the global crisis of 2008-9, the euro area remains stuck in its own existential crisis to this day, a homemade crisis that threatens not only the euro itself, but also the very existence of the EU and the whole process of European integration.

Mr. Almunia's verdict of 2008 was not only embarrassingly out of touch with the reality of a currency union that was to prove defenseless when the bottom fell out of the global and regional economies shortly after. The Commissioner's assertions were actually also delusional regarding the pre-crisis performance of Europe's currency union. Instead of anchoring the continent's macroeconomic stability, regional trade, financial integration and investment, the euro area, particularly the larger countries, had experienced a steady worsening in economic performance since the 1980s.[1]

[1] Referring to Europe's underperformance relative to the United States since 1982, Darvas, Pisani-Ferry and Wolff (2013, p. 2) attest that: "Europe's pre-crisis growth performance was disappointing enough, but the performance since the onset of the crisis has been even more dismal." In this noteworthy that France's macro policy U-turn in 1983 set the stage for Europe's gradual convergence to the German model, a process which is now set to see its "coronation" as Europe has signed up to German rules of fiscal "solidity" in recent reforms (Bibow 2013b).

The following stark developments stand out concerning the area's performance from the early 1990s until 2008 and since the global financial crisis: protracted domestic demand stagnation, pronounced export dependency, elevated levels of unemployment, vast intra-area divergences and imbalances, rising public debt ratios, headline inflation persistence, ending with a cataclysmic plunge in investment.

In elaboration of these developments it is noteworthy that:

- The eurozone suffered periods of protracted domestic demand weakness both in the 1990s and the 2000s. In both decades the region joined the global expansions only belatedly, namely only as external stimuli finally proved sufficiently strong to overcome homemade headwinds. In the 1990s, the external pull owed primarily to the U.S. "new economy" (or "dot.com") boom, which in 1996-7 lent a critical external lifeline to aspirant European countries struggling to meet the fiscal "convergence criteria" laid down in the Maastricht Treaty. In the 2000s, too, the record global boom led by the U.S. and China reached the currency union as a whole only in 2005-6 (by which time it had earned the uninspiring title as "sick man of the world economy"). The eurozone's dismal comparative performance has been at its record worst in the aftermath of the global crisis as the area got stuck in its ongoing existential crisis. Instead of participating in the global recovery the eurozone experienced eight consecutive quarters of shrinking domestic demand between the second quarter of 2011 and the first quarter of 2013.

- Export dependency is the flipside to the currency union's persistent failure to generate strong and sustainable domestic demand growth, including the ability to recover from recession by its own homemade impulses. This feature is truly astounding given that the eurozone is roughly 80 percent the size of the U.S. economy. For an economy of its size the eurozone is conspicuously export dependent – which stands in stark contrast to the U.S. economy. This is the case more than ever today as the brief export-driven rebound from the global crisis quickly stalled in 2011, and for purely homemade reasons. In fact, since 2010 the eurozone's growing external imbalance – featuring very sizeable positive net-export growth contributions – has been the only growth engine for the world's second-largest economy. While only partly offsetting its fast-shrinking domestic demand, global growth at least contained the drawn-out recession. Meanwhile, the currency union's external position has swung from a deficit of 100 billion dollars in 2008 to a 300 billion surplus in 2013 (IMF forecast), representing an enormous drag on the global recovery.[2]

- Protracted periods of domestic demand weakness only exceptionally interrupted by brief externally-sponsored booms came along with elevated levels of unemployment. In the 1990s, area wide unemployment peaked at 11 percent, declining to a low point of 8 percent by 2000-01. In the 2000s, unemployment climbed back up to over 9 percent in 2004 before falling again, reaching a new trough of 7.3 percent by early 2008. Today, the area's unemployment rate is at a record high of over 12 percent, and still rising. Given the European authorities' peculiarly single-minded focus on structural factors as supposedly explaining European unemployment, the area's unemployment rate is remarkably cyclical. It is undeniable though that the observed peculiarly skewed cycle, featuring long periods of protracted domestic demand stagnation, is bound to permanently push up the average level of unemployment as well.

- While the currency union's aggregate performance is one part of the problem, intra-area divergences provide the other. Today's enormous intra-area divergences and widening disparities arguably present the biggest threat to the euro's survival. As Germany's economy has at least crawled back above its pre-crisis peak level of income by some meager 5 percent, the Greek economy has meanwhile lost over a quarter of its pre-crisis size. In fact, most eurozone member states are still operating below their pre-crisis peak levels by the fall of 2013, with France barely recovering its lost ground.[3]

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[2] The IMF (2013c) forecasts that the eurozone's external imbalance will continue growing beyond 400 billion dollars and towards 3 percent of GDP over the next few years. By comparison, the U.S. current account deficit peaked in 2006 at around 800 billion dollars and has since declined to around 450 billion dollars, while China's current account surplus peaked in 2008 at around 400 billion dollars and has since declined to around 200 billion dollars. Prior to the global crisis the euro authorities claimed that they were not part of global imbalances as they had kept their own house in order. While that has turned out to be wishful thinking, there is also no denying that since signing up to the G-20 "Framework for Strong, Sustainable, and Balanced Growth" (G-20 2009) the eurozone has become the number one *destabilizing* force behind the evolution of global imbalances.

[3] In this context it is worth recalling that one of the major concerns in assessing the viability of a common currency prior to the actual launch of the project was that (prospective) members of the eurozone were at vastly different levels of development and real income. Real convergence therefore appeared critical to assure long-term cohesion of the currency union. And fiscal transfers in the form of the EU's Structural and Cohesion Funds, increased at Maastricht, were meant to support the desired process of real convergence. In parallel, as a supposed safeguard of nominal stability and convergence, the infamous "Maastricht [EMU entry] criteria" were focused on nominal rather than real convergence. Essentially inflation and nominal interest rates were required to converge toward lower German levels. Surprisingly, however, while the ECB took over the task of maintaining price stability in the currency union as a whole, and aggregate trends in wages and unit labor costs actually stayed well below the 2 percent stability norm, no attention was paid to the critical need to prevent nominal divergences inside the currency union. For with nominal exchange rates abolished through the common currency, balanced intra-area competitiveness positions came to critically hinge on national trends in wages and unit-labor costs. In actual fact, persistent divergences in wages and unit-labor costs arose under the euro, but were judged benign and hence tolerated. It was totally ignored that persistent divergences in intra-area competitiveness positions involved the buildup of imbalances in national balance sheets that were later to provide the background to the ongoing euro crisis – a crisis that

- As an important aspect of the aforementioned buildup of imbalances, some member countries have run up very high degrees of foreign indebtedness, together with large bad debt problems resting in their national banking systems as a result of imploding asset price and debt bubbles; while other member states' foreign asset positions feature very large exposures to their troubled euro partners (Bibow 2012, 2013c).

- While the popular title "sovereign debt crisis" is a misnomer for confusing a symptom as its cause, this is not to deny though that public debt ratios had increased to well above their 1991 "Maastricht" level of 60 percent even prior to the ongoing crisis. In the 1990s, the area's aggregate debt ratio peaked at close to 74 percent in 1996, then fluctuating around 70 percent under the euro prior to the crisis. The currency union's aggregate public debt ratio then increased sharply to over 90 percent in the context of the ongoing crisis. While the recent surge arose most obviously as a consequence rather than a cause of the ongoing crisis, the gentler upward trend between 1991 and 2008 likely contributed to the misdiagnosis of the euro crisis as a sovereign debt crisis. Yet it is hard to deny that euro aspirant countries undertook great efforts to reduce their budget deficits for much of the 1990s. Just as it is hard to deny that the majority of eurozone member countries then again took up the battle of staying below the 3 percent norm of the so-called Stability and Growth Pact (SGP) in the 2000s (Hein and Truger 2007). The common presumption that the upward trend in debt ratios reflects a lack of discipline and ambition is misguided. This presumption is even more wrong-headed with regard to the ongoing euro crisis. For arguing that eurozone member countries have done too little to contain the post-crisis surge in public debt ratios stands in utter conflict with the empirical evidence on the growth impact of fiscal austerity (Aghion and Marinescu 2008, Perotti 2011, De Long and Summers 2012, Panizza and Presbitero 2012, Blanchard and Leigh 2013).

- In fact, the eurozone's notorious struggles with containing budget deficits below 3 percent of GDP (while aiming at a balanced budget in the medium term) had another peculiar side-effect that is actually related to the European Central Bank's (ECB) conspicuous failure in keeping harmonized consumer price inflation below its self-declared stability norm of 2 percent in pre-crisis times. Starting from a very low level of inflation at the time of the euro's launch, the ECB

is primarily a balance-of-payment and banking crisis, ushering into a sovereign debt crisis only as a consequence (Bibow 2012a). The Delors Report (1989, p. 17) did not fail to observe that "imbalances might also emanate from labor and other cost developments".

was much embarrassed by the fact of missing its self-declared stability norm during much of the pre-crisis period. The fact is that to a significant degree the ECB's failure to fulfill its stability-oriented mission owed to hikes in indirect taxes and government-administered prices. Such hikes were concentrated in the mid2000s, i.e. at times of widespread fiscal pressures inducing stubborn attempts at balancing the budget. While market-driven inflation trended clearly downward at the time of protracted economic weakness, austerity-driven fiscal measures resulted in "tax-push inflation", thereby biasing headline inflation upward and above 2 percent (Bibow 2006b). The tax-push distortion has once again become very sizeable in recent years (Bibow 2013a). Headline inflation in the currency union is precariously low today (well below two percent) and homemade market-driven inflation pressures noticeable for their absence.

- But the phenomenon of tax-push inflation is only one conspicuous symptom of macroeconomic policy mismanagement and budgetary struggles. An even more alarming phenomenon, since it clearly pertains to the Europe's long-term outlook, is the observed plunge in investment, both public and private and both in absolute terms and as shares of GDP.

In conclusion, the current euro policy regime does evidently not provide for "strong, sustainable, and balanced growth", to borrow the set of aspired performance attributes that feature in the title of the corresponding G-20 "Framework" for the global economy that the euro authorities agreed to in Pittsburgh in 2009 (see Group of 20 2009); if only to renege on it persistently. In a nutshell, the euro regime produced periods of protracted domestic demand weakness together with mounting intra-regional divergences even before the single currency was going to tear the continent apart in the ongoing and still unresolved crisis against which Europe's currency union proved utterly defenseless.

While a common currency may well offer sizeable *potential* net benefits to Europe, both political and economic, it is very clear today that the Maastricht regime of EMU has dismally failed in unleashing any such potential welfare gains. Instead, the euro has left the peoples of Europe stranded with enormous wreckage, with the threat of potentially much greater mischief still. In light of the eurozone's unimpressive record since the 1990s, it seems impossible for any serious observer to come up with a positive verdict on the euro. The euro experiment has failed.

Dismal performance and unenviable policy records is one thing. The authorities' delusional interpretation of their notorious failure is another. The authorities appear to be both intellectually and institutionally trapped within a policy paradigm that is altogether unsuitable for Europe. The next section therefore revisits the supposed theoretical underpinnings of Europe's EMU.

3 Which theory: Traditional monetary economics, ordoliberalism, or Keynesianism/cartalism?

The previous section identified as the three main failings of the Maastricht regime of EMU the following areas: First, deficient domestic demand growth, second, unchecked divergences in competitiveness positions, and third, incapability to counter and resolve crises resulting from the first two failings. In the language of "optimum currency area" (OCA) theory, to be discussed in more detail in this section, the eurozone appears to be both ill-equipped to counter symmetric shocks, including systemic financial crises, as well as unable to prevent the emergence and endogenous amplification of asymmetric shocks and resolve their consequences. The remainder of this section investigates the theoretical underpinnings of the euro policy regime. What kind of economic theory has inspired and might justify the Maastricht regime design and Euroland's policy choices? The analysis first revisits OCA theory, the workhorse framework of traditional monetary economics for the analysis of currency unions, before highlighting the specific influence of German ordoliberal ideas in shaping the euro regime's key shortcomings, which are assessed here from the vantage point of a Keynesian/cartalist perspective.

Mundell's (1961) key contribution to OCA theory was to highlight that symmetric and asymmetric shocks to a currency union give rise to fundamentally different kinds of policy challenges. As far as symmetric shocks are concerned, affecting all members of a currency union more or less alike, no essential change in the use of traditional macroeconomic policies would seem to arise, on this view. In fact, forming a currency union, which means fully integrating monetary and exchange rate policies of members, makes unnecessary any need to coordinate national policies in these areas (if "block-floating" of a region's national currencies were desired) – a need that would however continue to exist in the area of fiscal policy unless the currency union is also a fiscal union. By contrast, country-specific policy responses and/or market adjustments are called for in case of asymmetric or idiosyncratic shocks, shocks hitting different members differently.

Taking the United States and Canada as his main example of a potential currency union, it is of some interest that Mundell ruled out the possibility that wage-price flexibility would ever be sufficient in internally stabilizing a currency union among these two specific economies that are widely judged by mainstream economists to have labor market institutions allowing for flexible adjustments. If exchange rate adjustments are no longer an option and wage-price flexibility insufficient to make up for it, labor mobility emerges in Mundell's analysis as the safety valve and adjustment route that could serve to internally rebalance a currency union hit by an asymmetric shock. Note here that, in standard neoclassical fashion, Mundell is treating exchange rate adjustments and wage-price flexibility as substitutes when it comes to rebalancing a currency union and restoring intra-union competitiveness positions.

Clearly, both unwarranted exchange rate changes and diverging wage-price trends may then also be the *cause* of intra-area imbalances. Ruling out the former, namely by forming a currency union, would still leave the latter potential source of imbalances, namely unwarranted divergences in wage-price trends, to be taken care of. Recall here that Keynes (1973) identified wage policies as potential neo-mercantilist tools in *The General Theory* and later, in the context of designing the post-war international (Bretton Woods) currency regime, argued that diverging national wage (and unit-labor cost) trends would call for pegged *but adjustable* exchange rates (see Bibow 2009b). By implication, if exchange rates are no longer adjustable, it is rather vital that unwarranted divergences in national wage (and unit-labor cost) trends must be prevented in a currency union too. Otherwise, from this Keynes-Mundell perspective, diverging wage trends become the *source* of asymmetric shocks, undermining balance in a currency union.

While the debate on fixed vs. flexible exchange rates also provided the setting for Mundell's (1961) OCA contribution, McKinnon (1963) and Kenen (1969) approached the issue more directly from the perspective of the emerging "Mundell-Fleming framework" with its focus on the policy goals of internal and external balance and featuring the quest for the optimal "policy mix" between monetary, exchange rate, and fiscal policies. McKinnon emphasized that a conflict between internal and external balance arises with rising "openness" of an economy, so that the exchange rate loses its effectiveness in securing external balance. Kenen, while better known for identifying the relevance of the degree of "diversification" of economies' production and export structures in determining their suitability for forming a currency union, actually also zoomed in on the role of fiscal policy in this context, emphasizing both the stabilization and redistribution functions of fiscal policy. Regarding stabilization Kenen observes:

> "I come now to another collection of arguments that Mundell and McKinnon have not explored sufficiently. Economic sovereignty has several dimensions, two of them particularly relevant to the problem of managing aggregate demand and maintaining full employment. Fiscal and monetary policies must go hand in hand, and if there is to be an 'optimum policy mix', they should have the same domains. There should be a treasury, empowered to tax and spend [and issue its own debt instruments[4]], opposite each central bank, whether to cooperate with monetary policy or merely to quarrel with it. From other viewpoints, too, the domain of fiscal policy ought to coincide with the currency area or, at least, be no larger than the monetary zone. Otherwise, the treasury will face a host of problems" (Kenen 1969, p. 45-6).

Unfortunately, Kenen then only considers the case of a fiscal system that spans a number of currency areas, but does not consider the opposite case, which is the relevant one in the eurozone. Using the U.S. as his point of reference Kenen engages in the counterfactual thought experiment of the U.S. moving back to issuing state or regional currencies. To counter the idea that the U.S. should perhaps be monetarily fragmented, if Mundell's argumentation were to be followed, Kenen makes the point that certain government activities may be subject to important economies of scale and that a central budget may serve to combat localized recessions. He argues:

> "If, then, an optimum currency area should be no smaller than the rather large domain of a least-cost government, it may have to span a great number of single-product regions. If, further, a fiscal system does encompass many such regions it may actually contribute to internal balance, offsetting the advantage claimed for fragmentation. If is a chief function of fiscal policy, using both sides of the budget, to offset or compensate for regional differences, whether in earned income or in unemployment rates. The large-scale transfer payments built into fiscal systems are interregional, not just interpersonal, and the rules which regulate many of those transfer payments relate to the labor market, just like the criterion Mundell has employed to mark off the optimum currency area. … On balance, then, a region may come out ahead by foregoing the right to issue its own currency and alter its exchange rate, in order to participate in a major fiscal system" (Kenen 1969, p. 47).

[4] While not explicitly mentioned here, Kenen (1969, p. 45) refers to this issue in his discussion as the "thorniest practical problem" facing a central government that spans a number of currency areas.

Essentially, regarding stabilization policy in response to symmetric shocks, Kenen saw a need for monetary and fiscal policies to share the same domain to make an optimal fiscal-monetary policy mix possible. With regard to stabilization policy in response to asymmetric shocks, he thought that the redistribution mechanisms in place in a fiscal union would also act as a built-in intra-union automatic stabilizer, thereby compensating for the monetary and exchange rate instruments missing in a monetary union of identical domain. Needless to say, to see a need for stabilization policies in response to shocks and to regard fiscal policy as an important tool for this purpose reflects the Keynesian *Zeitgeist* of the 1960s.

By the time the Delors Committee met for its deliberations on EMU in Europe in the late 1980s, and as the economics profession became once again enchanted with OCA theory, views on both economic policy and modeling conventions had changed decisively. The monetarist counterrevolution and elevated inflation levels of the 1970s had led to a more widespread prioritization of price stability as a macro policy goal. Owing to the rational expectations revolution policy effectiveness in terms of anything else but price stability was generally questioned. Monetary policy was upgraded and fiscal policy taking the backseat. Rising public debt levels seemed to suggest that finance ministers were prone to irresponsible behavior anyway. Fiscal policy became seen as a threat to monetary policy but not vice versa (Sargent and Wallace 1981). Furthermore, currency market instabilities encouraged the view that "tying the hands" of the authorities was advantageous since pegging to a "credible" (low inflation) anchor currency would, through borrowing superior external reputation, enable the pegging country to disinflate at reduced costs. The "time-inconsistency" literature seemed to prove the case for an independent central bank.[5]

While such was the background to the discourse in the mainstream economics literature of the 1980s and 90s, "modernized" OCA theory thinking did find its way into EMU related reports and studies by the European Commission (Commission of the EC 1990, for instance). Arguably, its actual influence was rather limited though. The Delors Committee's report of April 1989, which prepared the ground for the Maastricht negotiations on EMU in 1990-1, was far more influenced by German views rather than mainstream economics anyway. Karl Otto Pöhl, President of the Deutsche Bundesbank from 1980 until 1991 and a member of the Delors Committee, was in a dominant position shaping the committee's work and report for the simple reason that the Bundesbank enjoyed a hegemonic position in the European

[5] For overviews of the evolution of OCA theory and its application to EMU in Europe see: Ishiyama 1975, Mongelli 2005, Tavlas 1993, 2009, for instance. Bibow 2004 critiques the time-inconsistency literature.

currency sphere and chancellor Helmut Kohl was dependent on Bundesbank acquiescence in convincing the German public that they should surrender their beloved deutschmark for something else (which had to be at least as hard and stable as the deutschmark itself).[6] If OCA theory appears to have influenced the debates and outcomes on EMU in Europe, this is arguably because its modernized variety had in large part shed its Keynesian flavor and was converging towards pre-existing German views on the matter.

German views on economic policy, including the Bundesbank's position of independence and "stable money" policies, are widely held to be shaped by the German neoliberal tradition and political philosophy known as ordoliberalism. Walter Eucken's postulate of the "primacy of currency policy" is seen as the intellectual basis for the Bundesbank's independent status and its "stability policy".[7]

Be that as it may, the by far most important factor was the post-war success of the German economic model and the German perception of that success as evidence of its superiority over any alternative. The German model's success included the early post-war "economic miracle" experience with market liberalization as unleashing growth, the record of low inflation and currency stability, and the record of fiscal solidity, featuring the triumphant stabilization of the German public debt ratio in the eighties following the supposedly "Keynesian excesses" of the seventies; with West Germany ending the decade with a balanced budget in 1989. Perhaps not totally unjustified the nation beaten to the ashes in its "Total War" of less than fifty years earlier may even have felt a belated sense of economic victory.

To this day, it is less well understood why and how the German model could succeed as it did. As I have dwelt on this issue elsewhere (see Bibow 2007b, 2012b, 2013b, for instance), a brief summary may suffice here. Apparently success of the German model is based on nothing else but market liberalization, price stability, and balanced budgets, with discipline and competitiveness as key German policy attributes. At is most simplistic, Bundesbank mantra has it that *(price) stability causes growth*. Alas, It is

[6] Dyson and Featherstone 1999 and James 2012 provide accounts on the process that led to the euro regime.

[7] See Bibow (2009a) for a critique of the conventional wisdom. I will not address here the issue to what extent supposedly "ordoliberal" policy ideas popular in German today can actually be attributed to Walter Eucken, founder of the "Freiburg School". In my view, Eucken himself deserves rather limited blame for German folly in economic policy matters. The main responsibilities fall on lesser minds than Eucken who in many cases developed ideas that were actually quite sensible. Issing (2004, p. 4) asserts that "Walter Eucken's notion of the primacy of monetary policy—and thus of price stability—as the very foundation of a functioning market economy also lies at the heart of monetary union in Europe. ... Walter Eucken is admittedly not a name that springs immediately to mind when searching for the intellectual antecedents of the euro. However, he stands for a school of thought which provided a source of inspiration to many economists and central bankers who have incessantly insisted on the importance of stability as the condition sine qua non for a successful single currency. The ordo-liberal tradition represented eminently by Walter Eucken (and colleagues in Freiburg and elsewhere) has had a substantial influence in shaping the post-war economic order in Germany emphasizing the importance of market competition and stable money. In the monetary field this found its expression in the setting up of the Bundesbank as an independent institution dedicated to safeguarding the value of the currency."

easily missed here that the essential ingredient was not price stability per se, but *relative* price stability in the context of stable nominal exchange rates. For in this kind of environment German inflation that is lower than in the country's main trading partners delivers cumulative competitiveness gains. It is in this peculiar way that price stability "caused" growth – as exports became Germany's growth engine no. 1.

The Bundesbank's crucial part in it was to impose discipline, both on fiscal policy and social partners. Fiscal policy was not to play any active role in generating domestic demand growth. Unions were to refrain from excessive wage claims, i.e. unit-labor cost rises in excess of the two percent stability norm. The German model worked well under the Bretton Woods regime of U.S. dollar pegs. And it was successfully rebooted in the 1980s as exchange rates were stabilized regionally through the European Monetary System following the French U-turn of 1983. Importantly, the model not only worked for the Bundesbank, which established its reputation as inflation fighter no. 1 on this planet. It also worked well for Germany since price stability did actually lead to prosperity in Germany (in the above peculiar way) while its fruits were broadly shared too as long as wage rises stayed aligned with productivity growth plus the two percent stability norm. Importantly, the model worked for Germany exactly *because and as long as others behaved differently*.

Germany's acclaimed fiscal solidity too was thus conditioned by external factors. It is helpful to bear some basic macroeconomic truths in mind here. To begin with, a closed economy cannot earn more than it spends, and in a closed economy the public sector can only run a balanced budget if the private sector does so too. If the private sector aspires to earn more than it spends and run a financial surplus, a balanced budget policy will inevitably inflict recession. By contrast, in an open economy with a private sector running a structural financial surplus, a balanced budget policy becomes workable through the run-up of external surpluses. Put in Kaleckian terms, in the absence of budget deficits, export surpluses become the source of corporate profits. In this way, one particular country may contain the rise of debt at home, but only with debt rising correspondingly faster abroad, spurring the excess spending by foreigners. In the course of the 1980s, Germany successfully balanced its public budget as its trading partners did not. Germany's large external surplus largely had its counterpart elsewhere in Europe. That Europe did not (yet) follow the German model was essential for its success in Germany.

Exporting the German model to Europe, essentially requiring Europe to behave like Germany, and expecting price stability to cause prosperity continent-wide, was therefore an inherently flawed idea from the beginning. The euro regime was doomed to failure unless Europe could henceforth rely on the rest of the world to fire its export engine sufficiently. In view of both the region's global economic weight and the fact that the euro was not to be part of a regime of stable nominal exchange rates, this was not a reasonable proposition.

It is true that the Delors Commission refrained from calling for more fiscal centralization also in acknowledgement of the political reality that the political authorities had no such desires. But simply replicating and extending Germany's exclusive focus on fiscal discipline across all national treasuries was to leave the aggregate fiscal stance a random outcome and the macro policy mix unlikely to be optimal; especially when the ECB came to narrow-mindedly interpret its mandate as exclusively price stability focused. The key features of the euro area's business cycle, featuring protracted domestic demand stagnation paired with an unhealthy degree of export dependence, have their roots here. And so do elevated levels of unemployment, the upward trend in the area's public debt ratio observed even prior to the crisis, and the conspicuous tax-push inflation phenomenon.

A lack of understanding of how the German model worked for Germany in the past thus explains the currency union's vulnerability to symmetric shocks: as no need for active demand management was seen by the euro regime designers, it is no surprise that the necessary institutions and policies were not put in place either. But the German model is also at the root of the dazzling intra-area divergences that, through the corresponding buildup of intra-area imbalances bound to implode at some point, led to today's euro crisis. For as the German model – predictably – stopped working for Germany under the euro, Germany's response was to super-charge its previously successful but now sputtering model, and go for zero unit-labor cost growth in an ill-guided attempt to boost its competitiveness inside a currency union. Lacking any stabilizing mechanism or institutional restraint, the euro regime proved as amplifier of the unfolding *endogenous* asymmetric shock (Bibow 2006b, 2007a,b).

The adverse symmetric shock triggered by the Lehman Brothers collapse then joined forces with the imploding imbalances that were the consequence of this avoidable asymmetric shock. It turned out that Europe's currency union was lacking the institutions and policies to deal with the fallout.

The institutional vacuum regarding macro policy coordination is problematic even under fair weather conditions. It turns precarious and potentially fatal when crisis breaks out. And it is at this point that Goodhart's (1998) cartalist critique of OCA theory comes to the fore.

According to Goodhart (1998), mainstream monetary economics is based on the idea that money evolved from private sector efforts to overcome the transaction costs inherent in barter while OCA theory is a natural extension of this view into the spatial, geographic domain. In particular, in deciding the optimal area for any one currency, the benefit in the form of reduced (micro-level) transaction costs has to be weighed against the costs in terms of (macro-level) adjustment difficulties. Those costs, in turn, appear to depend on the (micro-level) flexibility in markets. Goodhart highlights that this approach ignores the most important empirical regularity in this context, namely that currency areas are coincident with sovereign states and that political economy considerations must not be ignored in explaining this link. What we might call the "one country, one money" rule contrasts sharply with the "one market, one money" rationale promoted by the European Commission's study, which is reflecting the mainstream OCA vision. From the cartalist perspective the state has not only played a central role in the evolution and establishment of money. The stability of government and power of the issuing authority are also the source of the quality and value of a currency.

In other words, the euro, no matter what weighing transaction cost savings versus adjustment cost burdens might suggest, is an outright oddity from the cartalist perspective. The euro lacks the power of a state backing it. It is divorced from the fiscal function of government. Identifying this "unprecedented divorce between the main monetary and fiscal authorities" as a critical vulnerability of EMU in Europe, Goodhart (1998, p. 410) elaborates:

> "The key relationship [from the cartalist perspective] is the centrality of the link between political sovereignty and fiscal authority on the one hand and money creation, the mint and the central bank, on the other. A key fact in the proposed Euro system is that that link is to be weakened to a degree rarely, if ever, known before. A primary constitutional feature of the European Central Bank (ECB) is to be its absolute independence from government (at any level). Meanwhile, the political and fiscal powers of the various European Institutions (Parliament, Commission, etc.,) at the matching federal level are far weaker (than has been the case in other previous federal states). … Within the Euro area, the main political and fiscal powers are, instead, to remain at the level of the nation state. Historically, the nation states have been able, in extremis, (whether in the course of war or other – often self-induces – crisis), to call upon the assistance of the money-creating institutions, whether the mint via the debasement of the currency, a Treasury printing press, or the Central Bank. Whenever states (as in the USA or Australia), provinces (as in Canada) cantons, länder, etc., have joined together

> in a larger federal unity, both the main political, the main fiscal and the monetary powers and competencies have similarly emigrated to the federal level. The Euro area will not be like that. In particular, the participating nation states will continue to have the main fiscal responsibilities; but in the monetary field, their status will have changed to a *subsidiary* level, in the sense that they can no longer, at a pinch, call upon the monetary authority to create money to finance their domestic national debt" (p. 409-10).

The resulting vulnerability owing to the unprecedented divorce between the treasury and the central bank in Europe's currency union actually has a number of dimensions. Essentially, it leads to a weakening of power of all parties concerned: the national treasuries, the national central banks, and also the ECB. In fact, from a Keynesian/cartalist perspective the absence of a euro treasury will turn out to be the ultimate source of weakness undermining the euro.[8]

In the EMU context, Goodhart (1992, 1997, 1998, 2005, 2007) emphasizes the consequential vulnerability of the national fiscal authorities and national banking systems within Europe's currency union. Lacking the normal money-creating powers of sovereign states to monetize debt, national treasuries are defenseless in case of a run on the bond market for their national debt. Goodhart (1997, p. 93) highlights that "the effective removal of central banks from participating member states within EMU may expose them to serious fragility and credit risk in their bond markets", warning that "a run on the bond market in such conditions becomes rapidly self-reinforcing, a vicious spiral", as rising interest rates worsen the fiscal outlook, which in turn reduces the demand for bonds further. Goodhart likens the position of the EMU member states to that of subsidiary states in the U.S. or sovereign states that issue foreign currency debts. To avoid a liquidity crisis, which they are no longer able to counter in normal fashion, EMU member states must respond to any cash flow shocks by purely budgetary means – or else default. So Goodhart also warns that

> "a default (on its interest payments) of a member state within EMU is a real possibility, assuming the no-bail-out clause sticks. The main danger to the country involved, and to the EU, would then be a subsequent financial contagious collapse of some sizeable part of the financial (banking) sector. Sensible, realistic capital asset ratios need to be imposed on bank holdings of participating member state bonds from January 1, 1999. But beyond this, the default of any

[8] On the Keynesian/cartalist theory of money and the issue of monetary sovereignty see also Knapp 1905, Keynes 1971a,b, Lerner 1947, Godley 1992, Bibow 2009b, Kelton 2011, and Wray 2012, for instance.

> participating member state would have an immediate and severe effect on the debt markets of several other member states, if these are feared to be in any similar position (similar to the 'tequila effect')" (Goodhart 1997, p. 95).

For Goodhart the implications are that the debt limits set in the Maastricht Treaty and Stability and Growth Pact (SGP) are way too high. In fact, if EMU member states are in a position comparable to U.S. states, one might wonder here whether that would not suggest that their debt ratios should be similarly low, i.e. in the 10 percent of GDP ballpark. Goodhart (1997, p. 95) concludes that the "implications for demand management and unemployment within EMU in the next few years, therefore, look highly deflationary. This is partly a consequence of divorcing the fiscal and monetary authorities from each other's embrace."

Returning to this question ten years later, Goodhart (2007, p. 136) observes that the SGP "was almost bound to fail." He elaborates there on the political economy factors ignored by OCA theory that are the background to the euro conundrum:

> "There has usually been an (implicit) contract between the federal and the provincial (subsidiary) layers of government. On its side the subsidiary (state) government agrees to some fairly stringent (often federally imposed) constraints on its ability to run deficits. On the other hand the federal government implicitly (or even explicitly) guarantees the debt of the lower level governments, *and*, partly through automatic stabilizers and partly directly, offsets adverse asymmetric shocks affecting differing regions by a system of inter-regional fiscal transfers. There is no basis for such a bargain amongst the major countries and the federal institutions in the Euro Area. The federal institutions in the EU have neither the ability, nor the wish, to guarantee the deficits of the subsidiary state governments. The ECB is admonished *not* to support failing state governments, and there is no fiscal competence at the federal level either to make inter-regional transfers in response to asymmetric shocks or to support the ECB in meeting the burden of bailing out a failing state government. So the federal government in the EU neither can, nor wants to, carry out its part in the kind of implicit bargain observed in other federal systems" (Goodhart 2007, p. 149).

Since the SGP is an ineffective tool, Goodhart moves on and suggests addressing the concentration of public debt on banks' balance sheets by raising the risk weighting and capital requirements: "The purpose would be to try to ensure that, if a euro nation state defaulted, it would not drag down its own financial system into a messy collapse with it" (Goodhart 2007, p. 150). This leads us to another dimension in the "unprecedented divorce": financial stability and lending of last resort.

The notion of lending of last resort refers to the provision of emergency liquidity at times of crisis (see Goodhart and Illing 2002). While the above discussion focused on emergency lending to the public sector (scorned as debt monetization and banned in the Maastricht Treaty), another traditional role of central banks is to act as lender of last resort to banks. As has already emerged from the above, the two needs for emergency liquidity may be closely related: default on public debt can cause a banking crisis if such debt holdings are prominent among banks' assets. As the ongoing euro crisis has made clear, this relationship – the "bank-sovereign loop" – also works the other way round, namely, if bad bank debts turn into public debts in the context of a financial crisis, this can cause a "sovereign debt crisis" in due course. National banking systems and public finances tend to be closely related and a long history of recurrent financial crises suggests that, despite all good intent, the effectiveness of banking regulation and supervision may only go so far.

The remarkable thing is that this whole issue was largely ignored in designing Europe's currency union. Europe created a common financial market but no common financial policy. Instead minimal harmonization in financial regulation was paired with the "EU passport" (home-country) principle in financial supervision. The ECB was given no part in supervision, not foreseen to act as lender of last resort to individual banks, and explicitly prohibited to be lender of last resort to governments. Lending of last resort was thus to stay national. But with the national central banks (NCBs) becoming part of the Eurosystem, in practical terms, any lending of last resort by a NCB would be merely to facilitate the fiscal rescue by the respective national government.[9] Alas, with the national government lacking any lender of last resort itself, trouble arises as soon as the markets nurture concerns about an incipient financial rescue that could overburden the sovereign itself; a "sovereign" lacking monetary sovereignty, that is.

And that leaves the precarious position of the ECB itself. Prior to the ongoing crisis the euro area banking system appeared to become increasingly integrated. Central bank liquidity provision was distributed through the various financial centers without any stresses as inter-bank markets functioned smoothly. Of course the ECB can technically always provide additional liquidity to the euro area banking system as a whole, also on a massive scale in case of emergency. In particular, it can decide to water

[9] Any more lasting liquidity support in the form of so-called "Emergency Liquidity Assistance" requires ECB approval. Greece and Ireland have provided examples of their actual but severely restricted use.

down collateral requirements, extend loan maturities, deal with a wider circle of counterparties, or simply engage in outright purchases of assets of its own choosing. In other words, the ECB can easily be a lender of last resort to the system as a whole, justifying its conduct in terms of its monetary policy mandate focused on price stability.

What has made ECB crisis management since 2010 so much more complicated is the fact that the crisis, which at first appeared to be a more symmetric shock in the aftermath of the Lehman Brothers collapse, turned out to be deeply intertwined with an intra-area asymmetric shock that is the consequence of imploding intra-area imbalances. Dealing with problems in particular countries makes it so much harder to justify lending of last resort as being part of the ECB's monetary policy mandate, even if action may be necessary in view of systemic risks of area-wide contagion and, ultimately, euro breakup. The outcome of ECB emergency lending in case of an asymmetric shock and in the absence of any proper fiscal backstop has become most visible in the form of TARGET2 imbalances.

Divergences in intra-area competitiveness positions required capital flows as the necessary counterpart to rising current account imbalances. In the "winding phase" capital flows, including smooth inter-bank lending, in Europe's common financial market still lacking a common financial policy, allowed the buildup of large creditor/debtor positions. As bubbles burst in today's euro crisis countries, inter-bank lending to these countries came to a stop. Capital flight, including deposit flight, added to the trouble. All of a sudden the markets were waking up to the fact that these countries had run up net international investment positions of some negative 100 percent of GDP, featuring acute vulnerability of banking systems to plunging asset prices and bad loans, which, in turn, drowned *defenseless* "sovereigns" in a sea of national over-indebtedness. The "unwinding phase" has thereby highlighted fundamental flaws in the euro regime.

Outside a currency union sovereigns could resort to their monetary weaponry while currency devaluation helps shifting part of the national debt problem (if denominated in the national currency) onto creditors. Inside a currency union and without lending of last resort the liquidity crisis would have ushered into an actual solvency crisis, with creditors ending up sharing the burden by way of debtor default. German and French banks would have been hit most severely – and so would have tax payers as a result of national bank bailouts in the creditor countries. Central bank liquidity provision can prevent immediate default – even as healing any underlying solvency problems requires more than that. Liquidity provision within a unified euro central banking system would have seen emergency lending concentrated in euro crisis countries together with excess liquidity piling up in banks in "haven" countries. As the Eurosystem is not a unified central banking system, but features a structure of two layers, with the NCBs representing the second layer below the ECB, imbalances also show up in the payment system that links the NCBs: TARGET2.

TARGET2 imbalances are inconsequential accounting entries for as long as the crisis gets resolved without losses from default hitting the Eurosystem. In principle, ECB losses are shared according to countries' capital subscriptions. In case of euro breakup, however, losses from default are not only certain to hit the Eurosystem, they would also be concentrated in countries with TARGET2 creditor balances. The ECB may have saved German banks from defaults in euro crisis countries through its lending of last resort to those debtor countries' banks. At least temporarily, part of the debt problem (facing German and French banks, in particular) was elegantly mutualized in this way. But if the euro were to break up, losses would now hit the Bundesbank instead. At the end of the day, German public debt would rise to fill the hole left on the Bundesbank's balance sheet by TARGET2. While the Bundesbank can always mop up any excess liquidity if the "monetization of public debt" is perceived to undermine its monetary policy, recapitalizing the Bundesbank would come at a fiscal cost (to Germany).

"Monetization" on the part of the ECB/Eurosystem and recapitalization of the ECB/Eurosystem, assuming euro survival, are far more complex matters still. As no "euro (sovereign) bonds" exist, the ECB can only buy or finance national debt instruments. Equally, since there is no Euro Treasury in place that could provide "euro bonds" (for purposes of recapitalization) and resort to its power to tax, any ECB/Eurosystem recapitalization would need to run through the national treasuries and NCBs (each of which are facing all the constraints and vulnerabilities discussed above). Perhaps this might be workable in case of a symmetric shock that has damages aligned with ECB capital subscriptions.

But in case of an asymmetric shock, like the ongoing euro crisis, matters become exponentially more challenging. For an asymmetric shock forces the ECB to focus its "monetization" on certain countries. Immediately those fearing a "transfer union" will be on high alert as implicit transfers are emerging here (even as those implicit transfers may only provide partial offset for unwarranted benefits arising for "haven" member states). This would be similar if losses arose for the ECB due to an "asymmetric default" (i.e. a default event concentrated in particular member countries). An asymmetric default event can have either implicit transfers (reduced ECB profits) and/or the need for ECB recapitalization as its consequence. In the latter case a conflict with the "no-bail-out clause" arises as ECB recapitalization would need to come from those members that are not defaulting. Obviously the ECB is trespassing into fiscal and hence political territories whenever asymmetric monetization or asymmetric default and (potential) recapitalization become an issue. Moreover, having to ask for recapitalization from the national treasuries would not be a convenient situation to be in for the ECB either.

Needless to say, the ECB's precarious position is the opposite of what its German designers had in mind. But they missed something rather important in crafting the supposedly super-strong and super-independent ECB. The point is that Germany's monetary dogma has no place for concerns about the "unprecedented divorce", which is at the heart of Goodhart's OCA critique. In fact, while the unprecedented divorce merely appears to be a non-issue from the viewpoint of traditional OCA theory, it is even considered desirable from the German (ordoliberal) perspective: as it is believed to strengthen the position of the independent ECB.

For instance, the ECB's first chief economist Otmar Issing, who previously held the same position at the Bundesbank, explicitly identified the absence of a federal government and complete separation between public finance and monetary policy as a guarantor of stability of the euro. In a speech praising Hayek's insights in currency matters, Issing (1999, pp. 9-10) judges that

> "What has happened with the introduction of the euro has indeed achieved denationalization of money, as advocated by Hayek, at least in the Euro 11 countries. Furthermore, the euro is being managed by a central bank (the ECB) that is protected from political interference by a Treaty (the Maastricht Treaty), to which all Member States are signatories. All national central banks that comprise the Eurosystem are now independent of their respective Euro 11 governments, and, according to their respective statutes, cannot take instructions from these governments. Moreover, the Eurosystem is supranational and does not therefore have any natural political counterpart in the form of a supranational government with full executive powers. This further underpins the independence of the Eurosystem and enables it to pursue its mandated ultimate objective, that is price stability, without interference from government. Thus, monetary policy in the Euro 11 countries has been denationalized and is being conducted by a supranational central bank, which is politically independent of the governments of the Member States. Furthermore, any monetary financing of the public sector or privileged access to financial institutions are prohibited. The separation between public finance and monetary policy is thereby assured."

Without doubt the ECB's conduct and posture is conditioned by the peculiar ideological context of its existence, its Bundesbank baggage. But there may actually also be some self-awareness of the institution's own vulnerability present in Frankfurt. The ECB faced heavy criticism of its "Securities Markets Program" and it felt the need to sterilize the program, so that at least the "monetization" part of its asymmetric measure would be covered up. The ECB's latest program called "Outright Monetary Transactions" is even more prickly. Mr. Draghi's promise appears to have done magic in financial markets, at least for now. But any actual implementation is bound to give rise to colossal challenges.

Fears about any perceived straying from the Bundesbank's supposed path of virtue – and hence resistance – are typically concentrated in Germany: The Bundesbank itself, German media and public opinion, Germany's constitutional court, and the German body politic. In an extraordinary political feat chancellor Merkel lend her support to Mr. Draghi from the ECB rather than Mr. Weidmann from the Bundesbank on matters of OMT without causing a major uprising in Germany. But bear in mind that so far OMT are just words rather than deeds. Actually taking massive amounts of sovereign debts issued by particular member states onto its balance sheet raises the specter of apparent implicit transfers and, in case of default, potential conflicts with the no-bail-out clause. It would turn the ECB's potential vulnerability into actual fragility. Suffice to mention having an independent central bank without treasury backing waddle into quasi-fiscal territory raises serious issues of democratic legitimacy too.

But on a number of occasions the ECB was simply forced to act in some way because fundamental euro regime flaws threatened to usher into acute euro breakup. That Mrs. Merkel gave her blessing to Mr. Draghi's OMT promise most of all reflects pure desperation. Germany's chancellor may have intuitively grasped that the only other alternative, i.e. that of arranging explicit fiscal transfers, represented no real option at all.

Our analysis of the "unprecedented divorce" between the monetary and fiscal authorities yields a number of important implications. First, the deeply flawed euro regime has left all key policy makers vulnerable and the currency union overall without sufficient defenses even in case of symmetric shocks. Second, the situation is far worse in the case of asymmetric shocks as these make sharing of fiscal capacities unavoidable. Third, Germany is not only in the same boat with its euro partner debtors, but in principle also in the same position as everybody else in Europe's peculiar currency union – as Germany's treasury too got divorced from its central bank spouse. In other words, Germany's supposed "safe haven" status is based on market folly.

Unfortunately the markets' rewarding of Germany may also be partly responsible for the German authorities' delusional stance about Germany as the model for Europe. The German authorities remain stuck in denial. Germany cannot be the model for Europe.

It is true however that Germany also cannot rescue Europe by resorting to its own fiscal capacity – which at a debt ratio of over 80 percent of GDP is far too limited. Germany's real contribution to the rescue of Europe from its current predicament would be to finally emerge from its current state of denial and delusion and stop preventing reasonable reforms, reforms that are actually in Germany's own national interest. By contrast, if all member states are now supposed to balance their budgets and follow the German model in earnest, strong deflationary forces will prevail across the currency union unless either the private sector ceases to be a structural surplus sector and/or the euro area succeeds in running up huge and persistent external surpluses.

The next section investigates the current allocation of public finance functions, including recent reforms, in view of delineating the contours of a minimalistic but functional fiscal union in subsequent sections.

4 Allocation of public finance functions in the euro area and recent regime reforms

Traditionally, public finance theory distinguishes three basic functions: allocation, redistribution, and stabilization (Musgrave 1959). The first two are essentially microeconomic in character featuring the provision of public goods, corrective measures for market failures more generally, and measures to redistribute incomes, for instance. By contrast, the stabilization function is essentially macroeconomic in character and concerns aligning aggregate demand with the level of potential output. Government policies affect the economy and individual units through tax and spending policies as well as regulations, and particular measures may simultaneously relate to more than one of the three basic public finance functions.

One possible interpretation of the notion of fiscal union is that all public finance functions are fully centralized and uniform across a certain economic area, which is typically a sovereign state. This extreme form of fiscal union describes unitary states. Typically public administration in larger states features several levels of government, with lower levels enjoying some degree of autonomy from the central or federal level in certain public finance matters. For a union of sovereign states forming a large economic area like the EU – and similarly its eurozone subset – any extreme form of unitary fiscal union can be ruled out. In fact, the EU principle of subsidiarity calls for governance close to the people and foresees centralization of public policy functions only in cases in which superior performance can be expected by means of centralization compared to authority remaining at a lower level of government. The principle of subsidiarity was used to justify the move to a common currency, i.e. monetary integration together with the centralization of some, but not all, central banking functions. By contrast, in the domain of fiscal policy, the principle of subsidiarity is widely seen as justifying the status quo, which leaves public finance functions largely under the control of the member states.

So the status quo in the EU – and especially in its eurozone subset, which has no separate budget at all – really is no more than a rudimentary fiscal union: from the Maastricht Treaty until today the focus of ambitions has been on nothing else but disciplining national budgetary policies. In any functional fiscal union policy discipline at lower levels of government is indeed an important aspect of governance, but typically not the only one. Coordination, flexibility, and redistribution are other aspects. However, it is said that there is currently no appetite for any deeper form of fiscal union. The main fear being – especially on the German side – that deeper fiscal union is synonymous with a "transfer union", which supposedly is a fiscal union in which income and/or wealth transfers from richer to poorer members take place on a significantly larger scale than currently; with Germany as chief EU "paymaster".

At little over one percent of EU GDP the EU budget represents the financial core of today's rudimentary fiscal union. In addition, there are certain regulations in the area of public finance such as floors and ceilings for VAT rates. The EU budget mainly finances the EU administration, the common agricultural policy, and limited inter-regional fiscal transfers in support of smoothing out existing differences in levels of development and real incomes – the EU's cohesion goal. Cohesion is not so much about income redistribution as it is about achieving a certain leveling of opportunities for prospering within the union. Support is focused on infrastructure in low-income and disadvantaged regions as well as on fostering transnational structures that enable deeper linkages. To a degree, then, the EU's rudimentary fiscal union is actually designed to be a transfer union since by intention there is no one-for-one correspondence between member countries' contributions to the EU budget and their respective role as recipients of EU funds or benefits more generally. Whether countries are net payers or net recipients therefore usually plays the lead role in negotiations about the EU budget.

In view of the euro crisis, the quest is on for moving from a rudimentary EU fiscal union to a minimalistic but functional fiscal union for the eurozone subset. The most relevant example of a functioning monetary and economic union is the United States. The EU, and even its eurozone subset, is comparable in size to the U.S. And political and fiscal structures in the U.S. provide a prime example of fiscal federalism in a large economy. In particular, the U.S. illustrates the principle that “whenever states ... have joined together in a larger federal unity, both the main political, the main fiscal and the monetary powers and competencies have similarly emigrated to the federal level” (Goodhart 1998, p. 410). At the state level balanced-budget rules are followed for current expenditures. Fiscal stance at the state level therefore tends to be pro-cyclical. While a large part of public infrastructure investment is undertaken and owned at the state and local levels of government, the funding is largely done through federal grants. Sub-federal public indebtedness is accordingly low. If individual states or municipalities run into fiscal troubles, the federal government upholds a no-bail-out stance. This contrasts with the federal governments’ policy regarding financial institutions, the bail-out of which is accepted as a federal responsibility, involving – in close cooperation – the Federal Reserve System, the Federal Deposit Insurance Corporation, and the U.S. Treasury Department.

Backstopping the financial system, providing funding for public investment, and operating the macro function of fiscal stabilization policy, take place at the federal level. In large part U.S. fiscal stabilization policy results from automatic stabilizers inherent in the federal income tax and social security regimes. But stabilization efforts may also be topped up by federal discretionary measures, including extended unemployment benefits that kick in once state-level unemployment benefits reach their statutory time limit and general purpose grants to the states allowing state governments more breathing space in case of a deep downturn as experienced in 2008-9.

The latest episode of severe crisis is also instructive regarding the close cooperation between federal fiscal policy and the Federal Reserve. The cooperation during the crisis and its aftermath has gone well beyond the enduring challenge of determining an optimal macro policy-mix. The Federal Reserve’s “unconventional” monetary policies (aka “quantitative easing”) may also be interpreted as supportive debt management measures designed to contain the interest burden on the U.S. federal public debt. As is the case with monetary policy operations more generally, the Federal Reserve exclusively operates in federal debt instruments (or debt instruments issued by U.S. federal agencies) but not state debts.

Finally, the long-run picture of developments in federal public indebtedness shows episodes of rising indebtedness in periods of national calamities (such as wars or major financial crises), on the one hand, and episodes of stable or declining public indebtedness in more stable and prosperous times, on the other. Clearly the U.S. does not aim at a (near) zero public debt ratio. Nor does the U.S. illustrate the widely feared case of explosive public debts – despite running more or less continuous and sizeable budget deficits. Perhaps the so-called "golden rule" of public finance may even approximate the long-run U.S. fiscal picture, with "public investment" (to be debt-financed) broadly defined.

Arguably, the U.S. example has many lessons in store for designing a functional minimalistic fiscal union for Europe's currency union.[10] However, the fact that the U.S. federal budget is very large relative to state (and local) government budgets would seem to be a major put-off in the European fiscal context. The point is that the large size of the U.S. federal budget is chiefly a reflection of two factors: first, fully centralized military spending and, second, federal income tax and social security regimes that also serve redistributive functions apart from providing important automatic stabilizers. We will argue below that the positive role of U.S. federal fiscal policy as stabilization policy is achievable in Europe's currency union on the basis of a much smaller central budget by excluding these two factors; while still imbuing the Euro Treasury to-be with sufficient clout to force lower-level budget policies to abide by their side of the bargain.

If the U.S. provides the model the eurozone *should* be looking at for guidance, the German model appears to be the one the eurozone *is* trying to emulate – under German pressure. Reflecting allied occupation and control after WWII, Germany features federal structures that have some significant resemblance to the U.S. situation. In particular, fiscal stabilization functions and backstopping the financial system (at least de facto, as recent years have shown) are federal responsibilities in Germany while inter-regional redistribution is even more extensive than in the U.S. and also features a horizontal redistribution mechanism at the state level (Länderfinanzausgleich). While public finance policies at the federal and lower levels of government for long followed principles broadly resembling the "golden rule", public indebtedness at the sub-federal levels is generally somewhat higher than in the U.S. It is however another characteristic of state and local government debt in Germany that a large share of it is in the form of bank loans or collateralized ("covered") debt securities (Pfandbriefe) often issued through publically-owned banks.

[10] U.S. history and its relevance to European integration are discussed by: Bordo and Jonung 1999, Kletzer and von Hagen 2001, Bordo, Markiewicz and Jonung 2011, and Henning and Kessler 2012, for instance.

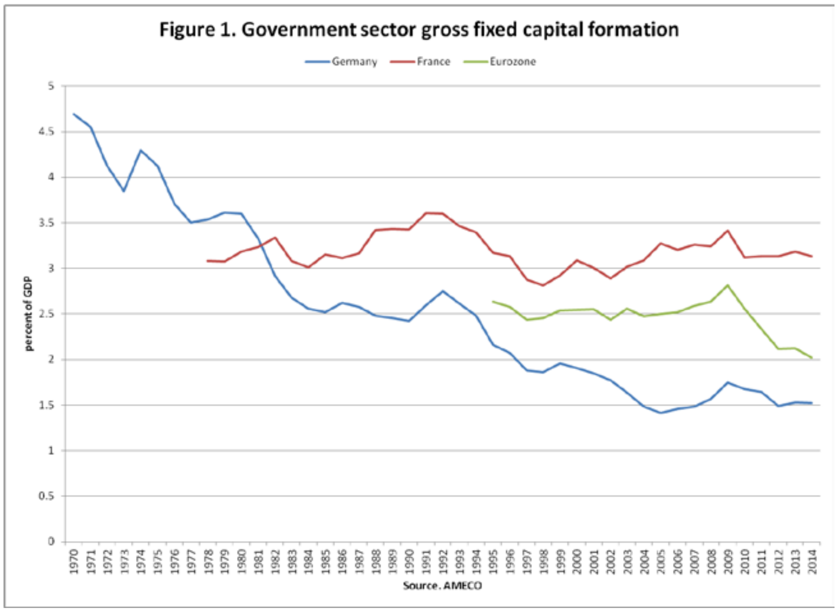
Pre-euro public finance arrangements and traditions in Germany are one thing. Important changes have occurred in recent times, culminating in Germany's so-called "Schuldenbremse" ("debt brake") of 2009; which follows an example set by Switzerland in 2003 (see Truger and Will 2012, Deutsche Bundesbank 2012, and Hein and Truger 2013). The German "debt brake" arose out of frustration with notorious failure of attempts at balancing the budget since German unification. Its key prescription is that state governments must follow a rule of structural budget balance while the federal government can run a maximum structural deficit of 0.35 percent of GDP.[11] In essence, this means that, while automatic stabilizers are supposedly allowed to operate – Germany has mothballed the "golden rule". At the state level public debt will converge to zero in the long run. At the federal level the corresponding long-run level may be in the ballpark of 10 percent. Currently Germany's public budget is roundly balanced. Small budget surpluses are foreseen by finance minister Wolfgang Schäuble for 2015 and beyond, implying that part of the public debt would – unusually – be actually paid off (rather than rolled over).

Germany sees itself as the model for Europe and has pushed through fiscal reforms intended to assure the export of German fiscal "solidity" to its euro partners. Reforms of the so-called Stability and Growth Pact (the "Six-Pack") and the new "Fiscal Compact" (see Buti and Carnot 2012) specify that euro members must restrict their medium-term structural balance to minus 0.5 percent of GDP (or minus 1 percent of GDP if their debt ratio falls below 60 percent). This would imply long-run convergence to debt ratios in the ballpark of 10-20 percent of GDP; well below the earlier "Maastricht parameter" of 60 percent of GDP. In view of current debt ratios around 100 percent of GDP, the fiscal regime may well require numerous member states to actually aim at medium-term structural surpluses. Europe is set for perpetual austerity.

Alas, the German experience with obsessive fiscal austerity since German unification is not an encouraging one at all (Bibow 2005). We summarized the outstanding facts about Euroland's poor performance record in section 2 above. Germany's record since the early 1990s was subpar even in the context of Euroland's overall performance. In particular, Germany's public and private investment rates have slumped together with persistent fiscal austerity and weakness of domestic demand. In the 1980s, the share of public investment in German GDP was still around 2.5 percent. By the mid 2000s, when

[11] In a 2007 report Germany's "wise men" recommended reinterpreting Germany's "golden rule" as referring to "net" rather than "gross" public investment, which amounted to a break with past tradition and implied an acceptable structural budget deficit of around 1 percent of GDP (see Bofinger et al. 2007). For some reason early negotiations between the federal and länder governments then started from only 0.5 percent as the aggregate norm, but when agreement on how to split this random number proved too hard to achieve, even less reason prevailed in the end and gave birth to the random number of 0.35 percent. The so-called Stability and Growth Pact would permit a 0.5 percent structural deficit for Germany. See also Blanchard and Giavazzi 2004, IMF 2004, and Välilä and Mehrotra 2005.

Germany became famously dubbed “the sick man of the euro”, this share had declined to its current level of only 1.5 percent (see Figure 1). While far more volatile than public investment, and following a mild downward trend since the 1980s, private investment too has slumped from around 19 percent of GDP to just over 15 percent since 2008.



In 2012, Germany may have finally succeeded in balancing its budget (as it did briefly twice before in 2000 and 2007), but it is less than obvious that the “grandchildren” of the current austerity-obsessed generation will reap any real benefits from that success. In particular, whereas capital accumulation was severely dampened, leaving future generations with a correspondingly smaller capital stock to inherit, the public debt ratio actually continued climbing to over 80 percent of GDP. It hardly qualifies as wisdom to pile up debts without anything to show for them on the other side of the balance sheet.[12]

Furthermore, there is the conspicuous fact that Germany’s obsessive exercise in balancing its budget came along with a surging external imbalance. And this raises a major concern as national income accounting warns us that: for as long as the private sector aims at a structural financial surplus, balancing the public budget is only possible alongside a current account surplus. If anything, Germany’s supposedly virtuous public thriftiness has raised the private sector’s aspired financial surplus, and thus also the current account surplus required to avoid recession.

[12] A look at Germany’s international investment position reveals that Germany’s mercantilist economic policies have come at a steep price in terms of massive valuation losses (see Bibow 2013c).

This underlines once more that Germany cannot be the model for Europe. The massive swing in the eurozone's current account balance since 2008 has been an enormous drag on the global recovery from the crisis. It is highly doubtful that the global community will tolerate the transformation of Europe's currency union into a larger Germany: a giant economy running huge and persistent external surpluses is sowing the seeds of bankruptcy and unemployment elsewhere. Do the European authorities really believe they can resolve the eurozone's internal crisis by simply repeating at the global level the very exercise that backfired so badly for the region?

In short, the German model needs to be trashed rather than copied and spread. The German model of mindless austerity has not only pushed Euroland into its current existential crisis, it also burdens the global community to an extent that will doubtlessly provoke pushback in due course. By contrast, the U.S. model may offer some important lessons regarding Euroland's three main challenges: building proper defenses against symmetric and asymmetric shocks as well as financial crises. There is an important qualifier here however: in view of the, at least at this point, probably insurmountable resistance against a "transfer union", the quest is on for a compromise, a minimalistic but functional fiscal union that can meet the three main challenges without large-scale redistribution. The next section evaluates various proposals put forward as remedies for the euro regime's shortcomings.

5 Evaluating proposals for 'debt mutualization', 'fiscal union', and euro rescue

Various proposals have been put forward on how to fix the euro regime and resolve the ongoing crisis. Proposals broadly fall into three categories. The first group of proposals narrowly focuses on some limited degree of public debt mutualization through creating "Eurobonds" of some kind. A second group of proposals goes beyond the mere mutualization of national public debt and entertains some comprehensive reform ideas including steps toward some form of fiscal union. A third group of proposals pays closer attention to the immediate challenge of re-starting growth as a necessary precondition for resolving the crisis and thus rejects the austerity drive that is part of the former two groups' ideas.

Starting with the first group, but not in chronological order of specific proposals, the German Council of Economic Experts ("wise men") proposed setting up a "European Redemption Pact" with an associated

“European Redemption Fund” in their Annual Report of November 2011. The Pact was supposed to buy time for more serious governance reforms while holding at bay acute threats of contagion and breakup. The main thrust of the temporary redemption fund plan is to lower risk premia in bond markets, and thereby financing costs of troubled sovereign borrowers, by having the strong countries lend their reputation to the joint debt vehicle. The Fund would take off the market sovereign debt in excess of 60 percent of GDP to be redeemed by the debtors over the foreseen 25-year lifespan of the Fund. As a condition the Pact would require participating countries to introduce debt brakes in their respective constitutions (following the German and Swiss examples), so as to prevent national debt-to-GDP ratios from rising above the 60 percent threshold again. The proposal foresees special tax provisions designed to generate revenue earmarked for servicing the debt and the deposit of international reserves to guarantee the Fund’s debt issuance.

The “Blue-Red bond” proposal by Delpla and Weizsäcker (2010) feature another Eurobond variety that almost looks like the reverse. Under this plan, only national public debt up to 60 percent of GDP would receive joint and several backing to become “safe” or “blue” Eurobonds while public debt in excess of the 60 percent threshold would continue to be purely national debt (“red” bonds). The aim here too is to lower borrowing costs for some sovereigns and contain bank vulnerability and capital flight.

The proposal made by the “euro-nomics group” of “concerned European economists” for “European Safe Bonds (ESBies), to be issued by a European Debt Agency (EDA; to be established), is similar to the “blue bond” idea in both its main aim and its focus on supporting sovereign debt up to the Maastricht 60-percent threshold. In the group’s diagnosis the crisis in Europe largely owes to a lack of safe assets in the global financial system, a situation which is made worse by regulatory distortions (and ECB practices regarding haircuts on collateral) that encourage banks to hold excessive amounts of public debt carrying zero risk weightings. These distortions are held ultimately responsible for the “diabolic loop” tying the fate of sovereigns and banks in ways that can suffocate the real economy in a bond market panic, triggering a credit crunch and fiscal austerity.

The main thrust of their proposal is to create a truly safe European public debt security meeting strong regional and global demands for such instruments that, in their analysis, would allow all euro member countries to reenter the capital market at low financing costs.

The proposed safe bonds are designed as Collateralized Debt Obligations (CDOs) backed by a fixed proportion (60%) of the member countries' outstanding public debt securities[13], with each country's weight based on its GDP share (averaged over the past five years). Apart from the diversification or pooling effects, the safety of the bonds is to be achieved through tranching and credit enhancements. While the EDA buys sovereign bonds of member states according to some fixed weights as its assets, it issues two types of securities. It is the presence of a risky junior tranche, "akin to an equity claim" and not to be bailed out, that allows the creation of a super-safe senior tranche. Credit enhancement – to be provided by parking countries' gold reserves in the vehicle – would add further safety to the ESBies.

Also, Euro member states would remain individually responsible for servicing the debt securities held by the EDA. And ESBies do not involve a "joint and several" guarantee and are therefore not backed with solidarity by all of the member states. ESBies are not backed by anything beyond the securities in the EDA's bond portfolio, with any public debt beyond the threshold accepted by the EDA remaining purely national debt subjected to market discipline. This proposal much emphasizes that portfolio choice of the EDA would be "guided by a strict, stable, credible, and transparent rule. The rule should be formulaic and unambiguous, and therefore immune to political interference. Any change should require parliamentary approval" (Brunnermeier et al. 2011, no page number).

Hellwig and Philippon (2011) argue for a more limited mutualization of eurozone sovereign debt through joint and severally guaranteed Eurobills. Volume of Eurobills is to be capped at only 10 percent of eurozone GDP, which corresponds to the U.S. situation. And at a maturity of one year or less, the proposed "Eurobills" need to be rolled over frequently, providing a simple way of establishing de facto seniority. The aim of Eurobills is to prevent liquidity crises but not to create open-ended commitments that involve the bailing out of insolvent countries. Participation in Eurobills emission through a joint debt management requires countries to give up their right to issue short-term debt and comes along with conditionality featuring fiscal discipline. Hellwig and Philippon (2011, p.) see a strong global demand for risk-free assets: "Eurobills are a market waiting to happen."

In November 2011 the European Commission issued a "Green Paper on the Feasibility of issuing Stability Bonds" featuring three options for the introduction of "Stability Bonds", broadly resembling other Eurobond proposals. One option would lead to a complete substitution of national sovereign debt by

[13] Luxembourg with its debt ratio of around 30 percent would seem to limit the total volume of the Fund.

the common “Stability Bonds” while a second option only foresees partial substitution. A third option only features several guarantees rather than joint and several guarantees as in the other cases.

Another related set of proposals for debt mutualization prompted by financial market stresses focuses more on the need to backstop the financial system, including the capability to recapitalize banks (see Gros and Micossi 2009 and Gross and Meier 2010).

In summary, prompted by acute market funding stresses and breakup threats, the various Eurobond proposals for partial or complete sovereign debt mutualization mainly aim at securing market access for weaker member states at reduced borrowing costs.[14] Concerns about fiscal profligacy and moral hazard are common elements. Important differences exist though. Whereas the German wise men’s proposal would see sovereign debt ratios decline toward zero or very low levels in the long run, the proposal by the euro-nomics group (and to a lesser extent the “Eurobills” proposal too) highlight that sovereign debt is actually of vital importance to a well-functioning financial system and that a solid outstanding stock of safe assets would also be attractive from a global perspective. Overall, however, the various proposals for sovereign debt mutualization only concern particular symptoms of the ongoing crisis but fail to properly address the key underlying causes of it. The issuance of Eurobonds will inevitably be part of any solution, and they also feature in the Euro Treasury proposal put forward below. The point is that Eurobonds can only be part of a wider set of regime reforms and measures to resolve the current crisis. By themselves Eurobonds might turn out to do more harm than any good.

That said, by now it is almost conventional wisdom even among the euro authorities that the original euro regime of Maastricht was “incomplete” (the favored euphemism for seriously flawed) and therefore in need of reforms aiming at “completion” or “perfection”. Proposals for more comprehensive regime reform include the “Tommaso Padoa-Schioppa Group” (TPSG) Study of June 2012 titled “Completing the euro: A road map towards fiscal union in Europe”, the “Van Rompuy Report” of June 2012 titled “Towards a genuine Economic and Monetary Union” (which was drafted in agreement with the Presidents of the European Commission, the Eurogroup, and the ECB), and the European Commission’s “A Blueprint for a deep and genuine Economic and Monetary Union” of November 2012.

The TPSG study argues that Europe’s currency union needs a “sui generis form of fiscal federalism”, designed following the principle: “as much fiscal federalism as necessary for its appropriate function, but

[14] An earlier proposal by De Grauwe and Moesen 2009 involves the issuance of collectively guaranteed bonds through the European Investment Bank.

as little as possible" (TPSG 2012, p. 3). In view of existing resistance against a "transfer union" that sounds like a promising design principle. Apart from the completion and fostering of the common market and the creation of a eurozone banking union, the study foresees two elements that more specifically concern the "sui generis form of fiscal union". The first features an insurance fund, operating outside the EU budget and remaining under national control, that is supposed to serve cyclical stabilization in case of asymmetric shocks. The second features the creation of a "European Debt Agency" (EDA) that would provide a "flexible refinancing possibility to countries in exchange for a stepwise transfer of sovereignty" in case of funding stresses; operating on the principle: "sovereignty ends when solvency ends" (TPSG 2012, p. 7).

Regarding the insurance fund designed to deal with cyclical divergences it is noteworthy that the study finds that truly exogenous-driven asymmetric shocks have proved less important than the asymmetric impact of the common monetary policy. In other words, the endogenous amplification of homemade divergences through the euro regime itself represents the key problem that needs fixing. They envision a "rainy day fund" to be paid into in above average years and then drawn upon in a downturn. When euro member states are cyclically out of sync, automatic redistribution would occur between cyclically strong and weak members. No permanent transfers would arise though. The key idea behind the insurance fund mechanism is that contributions and receipts balance out for member countries in the long run. The study emphasizes that they "envisage a largely automatic scheme and do not think an intensive parliamentary control mechanism would be required for such as scheme, as it would be rule-based. But the rules themselves should be legitimated by the national parliaments of the countries involved, as the amounts in the insurance fund come from the national budgets and are not transfers or contributions to the EU level" (TPSG 2012, p. 32).

The envisioned EDA would be "less than a fully-fledged finance ministry or a treasury, but it would be more than a simple European Monetary Fund providing emergency assistance against strict conditionality. … It would be jointly and severally guaranteed by all euro area countries. In normal times, all euro area members would issue a pre-defined share of their debt (e.g. 10% of their GDP) through the EDA" (TPSG 2012, p. 38). It is at times of funding stress that members would take recourse to additional borrowing through the EDA, but only in exchange for ever more demanding constraints on their budgetary sovereignty. "As to the governance of the EDA, we argue it should be headed by a 'Euro area Finance Minister' that would in normal times ensure compliance with the main fiscal rules agreed upon in the euro area, and in times of crisis successively take over the control of fiscal policy-making in a country financing large amounts of national debt through the EDA" (TPSG 2012, p. 40).

Beyond the short-term implementation of governance reforms under way, both the "Van Rompuy Report" and the "Commission Blueprint" envision some limited form of central "fiscal capacity" designed as a mutual insurance system that can help countering asymmetric shocks. The former reform proposal foresees contributions from and to national budgets in line with member states' business cycle situation. Different options for assessing national contributions are discussed either based on GDP or designed as a supplement to national unemployment insurance systems. The latter reform proposal develops additional measures for deeper policy coordination, especially of structural reforms. In fact, the main purpose of the envisioned fiscal capacity appears to be that of promoting structural reform in economies in crisis. The Commission Blueprint envisions the fiscal capacity to be able to borrow in markets beyond its own resources. And it is foreseen to be combined with a debt redemption fund as proposed by Germany's wise men. The issuance of Eurobills is seen as a means to foster financial market integration.

In summary, the three proposals for wider regime reform clearly go well beyond the partial mutualization of national public debt discussed previously. Further "policy deepening" is foreseen in various areas, including a fiscal union of some kind that is centered on the idea of a mutual insurance mechanism to counter asymmetric shocks. While the need for some shared mechanism to resolve financial crises is partially acknowledged, both the ongoing acute growth crisis and the eurozone's general vulnerability to symmetric shocks remain largely unaddressed.

A third group of proposals rejects the official dogma that fiscal austerity and structural reform may be sufficient to reignite growth and is more focused on the immediate challenge of re-starting growth as a necessary precondition for resolving the crisis. For instance, the DGB Confederation of German Trade Unions proposed a "Marshall Plan for Europe" in December 2012 inspired by the assessment that:

> "There is an urgent need to realign and find a new direction for the future and thus stabilize the economic environment. Europe needs a long-term path toward growth and modernization that will equip our continent for the future, create the jobs for the 21st century and make wealth possible for everyone. This requires investments in sustainable power generation, in reducing energy consumption, in sustainable industries and services, in training and education, in research and development, in modern transport infrastructures, low-emission cities and

> municipalities and in the efficiency of the public service. It will also require all social groups to have a fair share in a better future. Europe's ability to compete in the future hinges on investments made in the present" (DGB 2012, p. 4).

The outlays of the Marshall Plan would focus on investment spending and grants as well as investment subsidies over a ten-year period (2013-2022). Its funding would occur through "New Deal" bonds issued by a "European Future Fund", to be established. In order to obtain low funding costs, the fund would secure an equity buffer through a one-off wealth levy on private assets above a certain threshold. The interest service on part of the fund's borrowing would be covered by revenues from a Financial Transaction Tax. For another part of the borrowing the fund would act as an intermediary with the interest service borne by the private borrowers using the facility. The Fund's debts would be retired during a subsequent ten-year repayment phase (2023-2032) while the remaining equity would continue to serve for lending. In addition, the Marshall Plan proposes to step up lending through the European Investment Bank and other public-sector financial institutions and development banks.

Perhaps the most comprehensive proposal for an immediate solution to the ongoing crisis is due to Yanis Varoufakis, Stuart Holland, and James K. Galbraith (2013) and titled "A Modest Proposal for Resolving the Eurozone Crisis, Version 4.0".[15] The authors much emphasize that their plan offers "immediate solutions, feasible within current European law and treaties. … a European New Deal which, like its American forebear would lead to progress within months, yet through measures that fall entirely within the constitutional framework to which European governments have already agreed" (Varoufakis et al. 2013, no page number).

One key element in their modest proposal is a large-scale investment programme intended to foster an investment-led recovery and convergence. The funding for this part of their proposal will occur through bonds issued jointly by the European Investment Bank and the European Investment Fund. Another key element is a "Limited Debt Conversion Programme" that foresees converting the Maastricht-compliant part of national sovereign debt to be turned into "ECB bonds". What may at first seem similar to Eurobond proposals discussed above is actually rather different. Because in this scheme no joint and several guarantee is involved but the ECB acts as an intermediary instead, issuing the ECB bonds by buying national debts, and with each member state remaining responsible for serving its share in the new public debts issued jointly by means of the ECB. In addition, the "Modest Proposal" foresees

[15] The first version of the "Modest Proposal" was published in November 2010 by Varoufakis and Holland.

employing the ESM's resources for direct bank recapitalization while having the European Commission establish an "Emergency Social Solidarity Programme" that is to be funded by various new revenue sources.

Yet another direction of initiative, which may be seen as complementary to direct stimulus measures in support of aggregate demand, is pursued in Marshall Auerback's "revenue-sharing proposal" of late 2011, titled "Toward a Workable Solution for the Eurozone". This proposal focuses on solving the solvency issue of sovereigns first while remaining agnostic on measures designed to tackle deficient aggregate demand (and on the longer-term challenge of establishing a fiscal union). In particular, relying on the ECB's "ability to create unlimited euros", the proposal calls:

> "… for the ECB to distribute trillions of euros annually to the national governments on a per capita basis. The per capita criterion means that what's proposed is neither a targeted bailout nor a reward for bad behavior. This distribution would immediately adjust national government debt ratios downward, which would ease credit fears without triggering additional national government spending. This would serve to dramatically ease credit tensions and thereby foster normal functioning of the credit markets for the national government debt issues" (Auerback 2011b, p. 2).

In practical terms, the distribution would be facilitated by simply crediting governments' accounts at the Eurosystem, with the governments then using their increased euro balances to retire debt. The scale of this measure foreseen is such as to bring down debt ratios to 60 percent "and then enforce [the SGP] rigorously" (Auerback 2011a). Auerback argues that this policy would allow the ECB to back away from its current quasi-fiscal role of buying national government debts. Furthermore, it would provide a mechanism for ensuring compliance with the SGP, namely by simply withholding funds from the annual ECB distribution in case of non compliance.

In summary, much in contrast to the current official policy track that solely relies on fiscal austerity and structural reform to achieve a rebalancing of the currency union and foster recovery, the last group of proposals alerts us to the need for more direct measures countering the crisis by propping up domestic demand and healing the solvency issue. Large-scale investment initiatives are identified as the means to boost aggregate demand. Monetary policy action is called for as a short-term measure addressing the solvency issue. Auerback's proposal, which would have provoked political resistance also for the fact that the ECB's distributions on a per capita basis imply a strong redistributive element, would have amounted to a euro version of the Fed's QE without the ECB actually purchasing government debts in markets. Miraculously, Mr. Draghi's liquidity support promise has eased the worst funding stresses without anything of this sort, at least for the time being. The main attraction of the "Modest Proposal" is to offer a route for immediate action not hindered by existing legal constraints. Acceptability of the plan poses a challenge nevertheless given its emphasis on redistribution, and the prominent use of the ECB's balance sheet will surely see German red lights flashing brightly. Furthermore, neither ECB bonds nor greater EIB bond issuance would provide a true equivalent to U.S. treasury securities. The same can be said for the "European Future Fund" issuing "New Deal bonds" under the DGB's "Marshall Plan" with its attractive focus on boosting Europe's infrastructure as a means to secure Europe's future.

Overall, then, we are left with attesting that the various proposals currently debated either only address particular aspects of the problems featuring in today's crisis, or fail to address the immediate challenge of restarting growth, or present solutions likely to encounter severe political resistance apart from featuring clumsy financial-instrument design. A far more straight forward solution is both feasible and advisable. In the next section we propose the establishment of a Euro Treasury as condition sine qua non for solving the euro crisis and re-setting the euro on a path of long-term survival and prosperity. The point is that political resistance against this kind of solution, associated with fears of a "transfer union", are largely based on ignorance while legal complications may actually be less stringent than widely feared because of the particular design of the Euro Treasury proposed here.

6 Euro Treasury as condition sine qua non

At the heart of the Euro Treasury scheme proposed here is a simple and straight-forward idea. The idea is to use the Euro Treasury *to-be* first of all as a means to pool eurozone public investment spending and have it funded by proper eurozone treasury securities. Member state governments would agree on the initial volume of common area-wide public investment spending, say, three percent of eurozone GDP, and on the annual growth rate of public investment thereafter, say, five percent. By implication, if the implicit Maastricht assumption of five percent annual nominal GDP growth were to hold, the eurozone would henceforth see steady investment in its common infrastructure while the common euro treasury debt stock would converge to 60 percent of GDP in the long run.

In the proposed scheme the Euro Treasury would not directly undertake the investment spending itself. Instead, the Euro Treasury would give investment grants to member state governments exactly in line with member states' GDP shares (say, five-year averages). At the same time, the Euro Treasury would apply its power to tax and raise revenue to meet the interest service on the common debt. The shares of tax revenues raised to service the interest on the common debt would also be based on the member states' GDP. Essentially, the Euro Treasury is specifically designed *not* to be a transfer union. With both grants and tax contributions based on member states' GDP shares, redistribution is excluded by design. Redistribution will continue to be addressed through the EU budget, which stays separate from and will run parallel to the Euro Treasury.

The proposed Euro Treasury would thus function on the basis of a strict rule. As long as there is no fully-fledged parliamentary democracy in place in the eurozone, there is a strong political case for organizing public investment spending on a strict rule when managed and funded from the center. Moreover, there would be no mutualization of national public debts. And apart from any changes related to the Euro Treasury, member states would be required to abide by all the rules of the current euro regime, including recent reforms, *but applied to current public expenditures only* – as national public capital expenditures will form a separate capital budget funded through common euro treasury securities.

The foremost economic case for the proposed Euro Treasury is that the current euro regime, including both recent reforms and potential future reforms along the lines of the Van Rompuy Report or the Commission Blueprint, does not provide a viable path for Europe's currency union. The prescribed path of supposed virtue has member states run balanced or near-balanced public budgets forever, which would see public debt ratios decline towards (near) zero in the long run. That is a truly impossible endeavor, and not only because it means starving the financial system of safe assets. Debt – and in fact growing debt – is a very natural concomitant phenomenon of economic growth. Attempting to concentrate all debt on private balance sheets while craving to pay off public debt, as appears to be German dream of sound public finances, is both absurd and a recipe for disaster. It is absurd because the public sector is the ultimate bearer of risks and uncertainty in any sophisticated socio-economic system. To prevent the public sector from taking on debt sets up a lop-sided regime that shifts all debt onto weaker (private) shoulders, creating perfectly avoidable fragilities.

Following a financial crisis, marked by excessive leverage, private sectors will seek to run a net surplus. Only when the recovery has turned into a new boom, can we expect the private sector to reach a balanced position (or even a temporary deficit). Given a structural financial surplus for the private sector, the public sector can only realistically balance its books structurally by running perpetual external surpluses – the German model. In practice, in case of a large economy like the eurozone, this would mean persistently depressing the domestic economy while provoking global tensions. By contrast, perpetual deficit spending from the center organized through a Euro Treasury issuing proper Eurobonds avoids this outcome, while providing the safe assets the financial system needs to function. Put differently, the Euro Treasury is the missing element in the current euro regime because the scheme proposed here can actually make that very regime work – a regime which is inherently flawed and unworkable without it. In that sense, the Euro Treasury proposed here is a condition sine qua non.

Much in contrast to the so-called Stability and Growth Pact, which features a seemingly big "stick" of onerous sanctions, sanctions which may however be unenforceable in practice, the compliance issue is handled far more convincingly through the Euro Treasury. For the Euro Treasury will automatically withhold investment grants in case of non compliance with the balanced (structural) budget rule as applied to current expenditures – and by the full amount by which the target missed. Member states thus have a very strong incentive not to miss out on the investment grant "carrot". Any target miss – and its public finance costs in terms of missed investment grants – will surely reverberate with the public media and financial markets. On the revenue side of the plan, we draw upon the German wise men's idea of special tax provisions designed to generate revenue earmarked for servicing the debt. This may be bolstered by a deposit of international reserves equivalent of member states yearly tax obligations. Legally, eurozone member states could follow the example of the Fiscal Compact and enter into an intergovernmental treaty outside the EU framework together with measures to be introduced in national legislation.

The next section will delineate some further details about the Euro Treasury's vital functions in turning the flawed (or "incomplete") euro regime into one that is actually viable.

7 The Euro Treasury at work

The Euro Treasury is more than condition sine qua non for the euro's longevity. The Euro Treasury will play essential roles in at least three areas that are vital in turning the euro regime into an engine for joint prosperity. First, the Euro Treasury will stabilize public investment spending, which will also help stabilizing economic activity and investment spending generally. Second, the Euro Treasury will stabilize, and serve as backstop to, the financial system. Third, the Euro Treasury can also be the backbone for common fiscal mechanisms designed to counter both symmetric and asymmetric shocks. It will thereby contribute towards stabilizing labor markets and consumption spending and economic activity in general. In other words, it will contribute to the stabilization function of eurozone public finances even as national automatic stabilizers remain the main channels.

7.1 Safeguarding Europe's infrastructure and common future

In this regard, the German model provides a truly alarming warning sign for Europe: Germany may boast a balanced budget today, but the German record on public investment and aggregate investment has been outstandingly poor over the time period that saw Germany in delusional celebration of its austerity obsession (see Figure 1 above). The Euro Treasury scheme would steady public investment spending and thereby safeguard the eurozone's infrastructure and common future. In this regard, our proposal is well-aligned with other studies on that subject, ranging from the DGB's "Marshall Plan" to the European Commission's (2012) assessment of "investment needs" as part of the "Europe 2020" agenda, attesting an urgent need for Europe to invest in its future (see also Drèze and Durré 2013).

Where we mainly differ from these other plans is in proposing a much more straight forward funding of Europe's infrastructure and common future. Also, much in contrast to the one-eyed German perspective on the matter, our plan highlights that both sides of the balance sheet matter: Europe issues its common Eurobonds to fund the infrastructure of its common future. Germany's public thrift crusade denies the conventional wisdom of the "golden rule" of public investment. Our plan turns the "golden rule" into the anchor of the European integration process.

This is not to deny that there may also be a role for the European Investment Bank (EIB), the European Investment Fund, the Commissions so-called "Project Bonds", and private-public partnerships. The point is that these instruments can only complement but not substitute for a proper Euro Treasury issuing proper euro treasury securities. For instance, the EIB's expertise can be called upon in selecting and designing particular projects. But the bank's balance sheet cannot be levered up to an extent that would make a Euro Treasury superfluous. The EIB's capital subscriptions are backed by the EU (rather than the eurozone, adding a further complication) member states' national treasuries, each of which is in a vulnerable position due to its divorce from a fully-empowered national central bank. At the center of the U.S. public finance firepower is not some public bank or development bank or some amalgam of public-private partnerships, but the U.S. Treasury-Federal Reserve axis. The eurozone will not be able to jointly invest in its future and anchor the European integration process without establishing such a treasury-central bank axis at its own center too.

7.2 Stabilizing the financial system

Establishing a strong treasury-central bank axis at the eurozone's center is also vital when it comes to anchoring the stability of the financial system. The vulnerability of the original euro regime has become most obvious in this very area. Europe set out to establish a common market, but forgot to pair it with a common policy. Various initiatives are under way today to coordinate, harmonize, or properly integrate national and EU policies in the area of financial stability policy. These include laying down a new single set of rules for banks (the Capital Requirements Directive IV) and establishing European Supervisory Authorities as well as a European Systemic Risk Board.

Ongoing reforms in this area are now broadly discussed under the heading of "banking union" as a required complement to monetary union. At this point, it is widely held that banking supervision has been set on a sound footing through the "Single Supervisory Mechanism" (SSM) supposed to take effect in November 2014. Other critical elements in the banking-union plan remain work in progress, especially the issues of a common deposit insurance scheme and a common resolution framework or mechanism (see Véron and Wolff 2013 and Kapoor and Goodhart 2013, for instance). Following the experiences made in the context of the Cyprus crisis in 2012-3, there has been a shift in approach to resolution that focuses on bailing in creditors, so as to better protect taxpayers. This may be a laudable idea, but it is also somewhat naïve and hazardous. The culprits may be penalized and asked to contribute to the cleanup later on, but at times of emergency there may be severe limits to the practicability of stemming contagion by bailing in creditors.

The reality is that the authorities must be in a position of strength to be able to effectively counter systemic events. Cartalist analysis (see for instance Goodhart 1998 and the discussion above) suggests that coupling the quick pockets of the central bank with the deep pockets of the treasury is essential for having a strong bulwark in place against the threat of a financial meltdown. So if banking union is a required complement to monetary union, so is fiscal union, featuring a sufficiently strong treasury at the center. De Grauwe (2013, no page number) said as much when he recently observed that:

> "a workable banking union also implies some form of fiscal union. In times of crisis there must exist one or more European institutions with sufficient resources that can be mobilized immediately to intervene and to recapitalize banks. At this moment, the only existing institution that could fulfill this role is the European Stability Mechanism (ESM). One can doubt, however, whether this institution has sufficient resources to act in times of crisis. Surely, it can deal with individual cases, but probably not with systemic banking crises, involving large parts of the Eurozone banking system. In addition, the governance structure of the ESM risks paralyzing that institution during crises. Important rescue operations need the support of each individual member country. The fact that countries can exert a veto, is likely to make the decision making process unworkable during crises." (See also IMF 2013b).

As a necessary backstop for the financial system the Euro Treasury would replace the unwieldy ESM backed by national contributions, that is, national treasuries that are individually vulnerable since they are divorced from their national central banks. With the establishment of a Euro Treasury partner, the ECB would henceforth operate in euro treasury securities only but never touch national sovereign debt. We emphasized above that the debt-funded investment spending organized at the center would both require *and actually enable* national public debt ratios to decline to low and safe levels (as in the U.S.). Accompanied by banking regulations that effectively prevent the concentration of national sovereign debt instruments on bank balance sheets, the Euro Treasury will both cut through the "bank-sovereign loop" and make the "no-bailout clause" workable at the same time. Once again, the Euro Treasury appears as the missing element in the euro regime. Currently the no-bailout clause weakens and undermines the euro. Add the Euro Treasury and the no-bailout clause actually makes good sense.

Of course a "rainy-day fund" may be set up for this purpose, funded by contributions from the financial industry. But the requirement remains for "deep pockets" that are really deep when a major calamity strikes. The ECB has the liquidity firepower to stem contagion, but lacks the equivalent of the U.S. Treasury's deep pockets to pair up with. The point is that any viable banking union deserving that title presupposes an adequate central fiscal capacity. Existing instruments are ill-designed and inadequate for this purpose. Cross-border banking in a financial union requires a common resolution authority including a common fiscal backstop. With proper common supervision in place there can be no presumption that any fiscal burden of financial crises would land on national treasury shoulders. In the eurozone banking union, the Euro Treasury would be the ultimate backstop – funded by a debt instrument designed to equal U.S. Treasury securities.

7.3 Stabilizing labor markets and consumption spending

It is noteworthy that the Euro Treasury's essential function in managing and funding public investment spending in the eurozone does not actually constitute stabilization policy as commonly understood. Based on a strict rule, public investment spending will not be counter-cyclical but merely steady. In this regard, the approach is more akin to the German conception of "stability policy". The Euro Treasury nevertheless contributes – albeit indirectly – to the public finance function of stabilization in significant ways. Most importantly, by requiring *and actually enabling* the decline of national public debt ratios to very low levels in abidance with the rule of balancing *structural current* budgets at the national level, automatic stabilizers will actually have the necessary fiscal space to function freely.[16]

The Euro Treasury would leave the main fiscal stabilization responsibility at the national budget level, where large in-built automatic stabilizers exist. The experience of macroeconomic performance under the euro regime has revealed insufficient fiscal stabilization space both following the normal cyclical downturn in the early 2000s and much more so in the context of severe crisis since 2008. The so-called Stability and Growth Pact triggered procyclical consolidation in the 2000s. Under market and policy pressures member states have pursued counterproductively brutal austerity policies since 2010. The common presumption of fiscal profligacy or lack of ambition in good years is missing the point. The current euro regime is flawed and dysfunctional. The Pact was made more flexible and the focus of fiscal surveillance is now on structural budget balances, as it should. By preparing the ground for the free working of automatic stabilizers at the national level, indirectly, the Euro Treasury contributes greatly to both area-wide and local stabilization.

Of course the existence of a central Euro Treasury also establishes the institutional capability for a stronger common response to common (symmetric) shocks. For instance, the above strict rule could be augmented to cover severe recessions (say, declines in GDP by two percent or more). In this case, the Euro Treasury could (automatically) extend additional all-purpose grants to member states (on the basis of their GDP shares) that support member states' budgets. The effect would be a temporarily faster rise in Euro Treasury issuance and a correspondingly milder rise in national debt issuance. This may be advantageous since the Euro Treasury is paired up with a central bank while the national treasuries are not (and hence inherently vulnerable). Once recovery is established the tax for servicing Euro Treasury

[16] The presumption of sufficient fiscal space for the free working of automatic stabilizers at the national level is critical in sustaining a currency union on the basis of a minimalistic fiscal union. See Fatas 1998 on this trade-off.

debt could be temporarily raised so as to assure re-convergence to the target debt ratio for euro treasury debt within a certain time period.

This still leaves the issue of asymmetric shocks. There are two challenges here. One is to prevent the emergence of endogenous asymmetric shocks. The other is to respond to proper exogenous asymmetric shocks. While OCA theory focuses on the latter, arguably, the former variety has proved the far more serious threat. In particular, the experience under the euro regime has highlighted the vital importance of preventing the drifting apart of member states' competitiveness positions. While systemic flaws are the underlying cause of the ongoing euro crisis and inability to resolve it, the fact that German wages stopped growing and hence persistently diverged from the common wage norm provided the immediate cause of intra-area divergences and buildup of imbalances that unraveled in the crisis.

The straight forward lesson here is that member states must heed – what may be considered as – the "golden rule of monetary union": unit-labor cost trends of member states must stay aligned with the currency union's common price stability norm; unless truly exogenous shocks warrant any intra-area adjustment in competitiveness positions (Bibow 2001, 2006b, 2007a,b, Flassbeck 2007, ETUC 2012, Collignon 2013, Koll 2013). In the past, the euro authorities practiced benign neglect with regard to persistent divergences in wage-price inflation trends across the union. They misdiagnosed the causes behind divergences in arguing that German wage repression was justified in view of economic weakness – when wage repression, endogenously amplified by both monetary and fiscal policies, was the actual cause of protracted domestic demand stagnation in Germany. They made accordingly flawed predictions about the working of the allegedly equilibrating "real exchange rate channel". No doubt this blunder has proved extraordinarily costly for Europe. It is therefore truly remarkable that the authorities agreed on a "Macroeconomic Imbalances Procedure" (MIP) which, if anything, seems to make fun of the procedure's declared purpose: to prevent imbalances and restore equilibrium when needed. The design of that tool suggests that what the authorities had actually in mind was the acquittal of Germany, the main culprit behind intra-area imbalances. German pressure rather than intelligent design seems to have been at work here.[17]

[17] The European Commission's regular surveillance exercises (as applied to member states "Stability Programs") supposedly designed to assure both sustainable public finances and macroeconomic balance (by detecting threats in the form of "excessive public deficits" and "excessive macroeconomic imbalances") are afflicted by remarkable inconsistencies. It might be wise to start from basic national income accounting and then systematically apply sectoral-balance analysis and stock-flow-consistent modeling techniques. Valuable insights into the matter are provided by: Semieniuk et al. 2011, 2012, and Brecht et al. 2012.

This whole affair reflects the great irony which I dubbed “Germany’s euro trilemma”, which says that Germany “cannot have all three: perpetual export surpluses, a no transfer/no bailout monetary union, and a ‘clean’ independent central bank” (Bibow 2012a). In other words, if Germany doesn’t want a fiscal union of the dreaded “transfer union” type, it must end the very policies that make such a transfer union inevitable; given that the ECB’s balance sheet does not offer any permanent way out that Germany would like either (even as Mrs. Merkel, at the Bundesbank’s dismay, chose to accept it as a temporary abode; see also Buiter and Rahbari 2012). By implication, at least until a fiscal transfer union becomes politically acceptable, preventing the emergence of endogenous asymmetric shocks will be essential. The MIP must be replaced by a symmetric rule with far more bite that focuses on the golden rule of monetary union. To repeat, preventing permanent transfers presupposes preventing persistent divergences in competitiveness positions. Germany has to figure out what it really wants as the idea of the eurozone as a whole running up German-style external imbalances in the ballpark of 6-7 percent of GDP can be safely ruled out.

As to truly exogenous asymmetric shocks, a proposal developed as part of the European Commission’s (1993) study “Stable Money – Sound Finances” together with the accompanying set of research papers published in “The Economics of Community Public Finances” provide the right kind of approach, namely a mutual insurance scheme specifically designed to meet the stabilization purpose in case of exogenous asymmetric shocks. The key idea (due to Goodhart and Smith 1993) is to set up a mutual insurance scheme featuring fiscal transfers that are a function of the rate of change of economic activity rather than the level. Transfers are triggered when the rate of change of economic activity in any particular member state(s) deviates from the union average by a certain margin. Transfers are temporary. They automatically end in case of re-convergence of the rate of change to the average. If it is assumed that asymmetric shocks are randomly distributed, which requires that asymmetric shocks are not of the endogenous variety just discussed, then transfers will tend to balance out for countries over time and no permanent transfers arise. As other more recent proposals discussed above actually include versions of this very idea, perhaps acceptance of the risk sharing and mutual insurance element in our proposal may not be too far off.[18]

Once again, establishing a Euro Treasury as a fiscal capacity that is separate from the EU budget should simplify matters. It is conceivable to run the proposed mutual insurance scheme on the basis of a rainy

[18] The research papers that accompanied the EC Commission’s Report include: Goodhart and Smith 1993, Majocchi and Rey 1993, Papaspyrou 1993, Italianer and Vanheukelen 1993, and Pisani-Ferry, Italianer and Lescure 1993.

day fund, but it seems far more straight forward to use the Euro Treasury as the conduit through which member states make or receive temporary fiscal transfers depending on their relative cyclical position vis-à-vis the eurozone average. Providing a liquidity pool for any temporary mismatches arising from automatic operation of a mutual insurance scheme based on a fixed rule can be most cheaply done through the Euro Treasury issuing Euro Treasury bills. As in the case of symmetric shocks, the stabilizing effects in case of asymmetric shocks too would largely work through automatic stabiliziers in place at the national level – with added temporary breathing space provided by a mutual insurance scheme featuring the Euro Treasury at the center functioning as a conduit.[19]

In conclusion, the idea of a mutual insurance scheme specifically designed to help counter exogenous asymmetric shocks further bolsters the case underlying the Euro Treasury plan proposed here. Importantly, as is the case with the other aspects of the Euro Treasury plan discussed before, the mutual insurance scheme, too, excludes the redistribution issue by design and solely focuses on the stabilization issue for the time being; as redistribution requires a deeper political union than currently in place. The required size of the mutual insurance budget could be very small in practice, but still provide significant stabilizing effects.[20] It could be easily attached to the Euro Treasury functioning as a mere conduit and liquidity provider, and run largely automatically; just as the remainder of the scheme featuring at its core the common management and funding of eurozone public investment spending from the center. We emphasized the need for complementary rules designed to prevent a drifting apart of intra-area competitiveness positions that would make the dreaded fiscal “transfer union” inevitable.

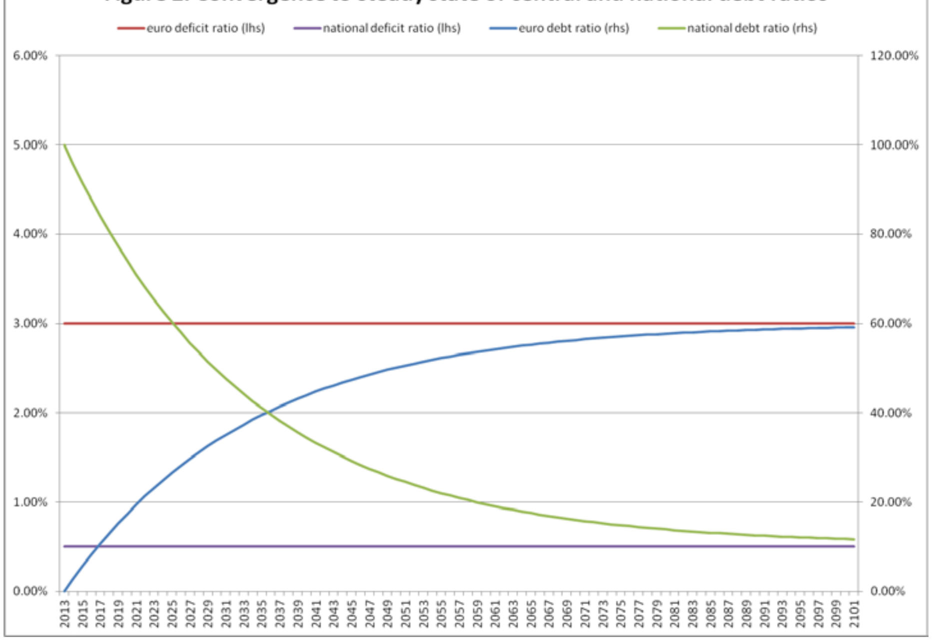
[19] One variation on the mutual-insurance idea features the establishment of some kind of currency-union-wide unemployment compensation scheme. This idea may be traced back to the Marjolin Report of 1975 and the MacDougall Report of 1977. It made a recent re-appearance in the Van Rompuy (2012) report. On the one hand, it might be seen advantageous to use elements of a common social policy to generate harmonizing effects in labor markets. On the other hand, excluding redistributional effects might prove more challenging along this route, which would currently be seen as a downside. See however Dullien and Fichtner (2013) on a common unemployment insurance system designed to prevent permanent transfers. See also Pisani-Ferry et al. 2013.

[20] Contrary to the MacDougall Report (1977), which had recommended a sizeable increase in the EC budget to assure compatibility with EMU, a simulation exercise undertaken by Pisani-Ferry, Italianer and Lescure (1993) for a mutual-insurance scheme specifically designed for stabilization purposes showed that “an estimated annual cost equal to some 0.2 per cent of Community GDP” (Pisani-Ferry, Italianer and Lescure 1993, p. 505) might be sufficient to achieve a degree of stabilization as in the United States. See also Goodhart 2007 and Wolff 2012. An IMF Staff Discussion Note that has just come out estimates that since the inception of the euro annual contributions of 1.5% to 2.5% of GNP would have provided a level of overall income stabilization comparable to the situation in Germany (see IMF 2013c). Designed as a rainy day fund that can lend support to offset both symmetric and asymmetric shocks the IMF team simulates that over the last 30 years all countries would have been net-beneficiaries of the risk-sharing mechanism at some point. However, as to the euro era, it appears that their simulation may greatly overestimate the required contributions since they fail to distinguish between exogenous idiosyncratic shocks proper as opposed to endogenous divergences. In other words, the trade-off featuring in Germany’s “euro trilemma” is not taken into account. In particular, their simulation shows transfers to Germany in the years 2001-5. Given that German weakness in those years was caused by German policy, policy that was systemically in conflict with the stability requirements of the currency union, a scheme that would have perversely rewarded Germany for the wage repression strategy that prepared the ground for today’s crisis seems rather ill-designed.

8 Recovery and transition, rebalancing and debt legacies

The above analysis focused on the medium and long-run impact of the proposed regime change. In terms of steady state public debt ratios at the eurozone and national levels, Figure 2 shows that Euro Treasury debt would converge towards a steady state level of 60 percent of GDP by the end of the century while public debt at the national level would converge towards 10 percent of GDP by that time; given structural fiscal deficits of 3 percent and 0.5 percent of GDP at the central and national levels, respectively, and on the assumption of an annual nominal GDP growth rate of 5 percent. In fact, the biggest part of the adjustment would be completed within 30 to 40 years. In other words, within one generation European's would share both a common infrastructure stock and the public debt that has funded it, while they would have little national public debt left to worry about. No debt mutualization would be involved though.[21] Steady deficit-spending at the center to fund the public investment spending that is the basis of Europe's common future would allow *and enable* national treasuries to balance their structural current budgets. While mimicking the original Maastricht criteria of fiscal rectitude and stability, this outcome would also resemble the U.S. situation at normal times.
(See Figure 2).

Figure 2. Convergence to steady state of central and national debt ratios



[21] In case of member states that adopt the euro later and hence join the euro fiscal union with the Euro Treasury at its core, partial debt mutualization of the late entrants' national debt may be the easiest way to keep the GDP rule of member states' shares in investment grants and debt service tax contributions simple.

In a number of ways the Euro Treasury scheme proposed here would actually also provide short-term recovery support, both directly and indirectly. One direct stimulus would arise from the fact that the proposed amount of public investment spending exceeds current spending. The eurozone's public investment averages roughly 2.5 percent of GDP since the mid1990s. Due to austerity measures public investment has plunged and now stands at only 2 percent of GDP, threatening to undermine Europe's common future. A return to 3 percent would thus provide an immediate boost to growth.[22]

Another direct stimulus effect would result from the fact that focusing the eurozone's fiscal regime on balancing structural *current* budgets (while separating and pooling the capital budget at the center) would fundamentally change the austerity outlook overall. A related important relief and stimulus would arise indirectly through declining interest rates. In principle, member states would see their tax contributions to finance the interest burden on the euro treasury debt gradually build up over time as their debt service on national public debt is set to decline simultaneously.

The point is that replacing a flawed regime by a functional one and gradually transitioning from servicing high-interest national debt to servicing low-interest common debt would result in significant overall budgetary relief. This benefit would arise rapidly as soon as national debt ratios are seen as being set on favorable trajectories. In other words, the Euro Treasury will allow for a favorable effect on national primary budgets that should be stimulatory overall; as more reasonable public finance purposes exist than needlessly enriching rentiers. Currently euro crisis countries are laboring under highly adverse conditions and are forced to achieve very sizeable primary budget surpluses. Ultimately dynamics for the euro treasury debt should be similarly favorable as in the U.S. case. Permanent primary deficits are a realistic prospect. This benefit would be gradually shared among currency union members as the transition progresses.[23]

Indirectly, the Euro Treasury plan would also make for a more symmetric and benign (less deflationary) rebalancing of the currency union.[24] For one thing, Germany would see a significant rise in public

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[22] Needless to say the boost could be temporarily bigger if it were agreed to start with higher public investment in the next few years, gradually declining to three percent of GDP thereafter. The convergence process in debt ratios at the central and national levels would be somewhat faster in this case.

[23] This does not imply that Germany would end up with a higher interest service burden than currently if the perverse "safe haven" bonus is excluded. Germany's current safe haven bonus is derived from an unhealthy mix of euro regime pathology cum market folly. In principle, Germany is as unsafe as any other euro member state that has divorced its treasury from its central bank. Euro breakup would cost Germany especially dearly (see Bibow 2013c). Establishing the Euro Treasury proposed here is in Germany's national interest.

[24] As the OECD's Guillemette and Turner (2013, p. 23) correctly observe: "Core countries can help the euro area rebalancing process and reduce the welfare costs sustained by peripheral countries by increasing domestic absorption and letting inflation drift above the euro area target for

investment spending. For another the country's quite sizeable structural current budget surplus would add to the expansionary fiscal effect. At least this would be the case if the balanced-budget rule of the SGP were interpreted in a sensibly symmetric way. A systematic and symmetric interpretation of the Pact is indeed called for. If members were allowed to target excessive budget surpluses this would risk undermining intra-union balance just as much as in the opposite case.

At the same time, normalization of credit spreads and convergence of interest rates across the currency union would also beget important relief to private borrowers, especially in euro crisis countries. The current fragmentation of financial markets within Europe's currency union defeats the whole purpose of both the currency union and the common market (Schoenmaker 2013). Companies in euro crisis countries are put at a competitive disadvantage in financial markets solely as a result of a dysfunctional currency regime. By contrast, with the Euro Treasury as conceived here in charge, the term structure on Euro Treasury debt would become the common benchmark for financial instruments issued by debtors of euro member states irrespective of nationality. This would finally establish the level financial playing field which the common market and common currency were meant to provide. None of the other proposals discussed above can realistically offer this prospect.

The Euro Treasury scheme proposed here would essentially re-launch the euro on a sounder footing. Admittedly, this would still leave the debt overhangs unaddressed which are a legacy of Europe's failed currency union experiment. A fiscal union that is specifically designed not to be a transfer union cannot directly address this issue. But by switching from a public thrift campaign that can only impoverish Europe to a public investment campaign designed to secure Europe's future, the Euro Treasury scheme will reignite growth and thereby establish more favorable debt dynamics across the union. Even Germany with its public debt ratio north of 80 percent would enjoy this benefit. Ending the debt deflation process under way in euro crisis countries through igniting growth would do much good in itself even as debt restructuring may be put on hold for the time being.

GDP growth through public deficit spending at the center will also greatly improve the situation of banks across the union even without more direct capital support. But ultimately growth alone will not heal the division between creditor and debtor nations that has come to afflict Europe's currency union. In this regard, sight should not be lost of the fact that, in essence, ECB liquidity prevented debt restructurings

some time." The IMF (2013a) acknowledges that euro crisis countries' efforts to restore competitiveness, consolidate public finances, and delever private balance sheets in a deflationary environment is an "uphill battle".

that would have left big holes in French and German banks' balance sheets in particular; with corresponding hits to tax payers in these countries instead of in today's euro crisis countries. Ultimately Germany's stubborn resistance against debt relief (as a case of the dreaded transfer union) leaves a foul aftertaste when compared to the magnanimous conduct of Germany's foreign creditors back in 1953; only so few years after Germany had seized to be the utmost savage of mankind. One might perhaps hope that improved overall performance under the new euro regime proposed here would lead to more solidarity and forgiveness of blunders of joint responsibility over time.

9 Conclusion

There is no way around the fact that the original euro regime laid down in Maastricht in the early 1990s has failed dismally in unleashing any of the promised benefits of Economic and Monetary Union in Europe. The euro experiment has failed, and it has left the peoples of Europe stuck in the deepest crisis since the start of the integration process at the end of Second World War. Today, the conventional wisdom is emerging – even among the responsible euro authorities – that the original Maastricht regime was somehow "incomplete". But a consensus has yet to emerge on how exactly to "complete" the somehow incomplete euro regime.

We have assessed various reform proposals to overcome the crisis and/or fix the euro regime, ranging from discretionary stimulus programs to public debt mutualization schemes and more comprehensive regime changes. These various proposals were all found lacking, even as particular aspects of them may be echoed by the Euro Treasury scheme proposed here. Our assessment was undertaken from a Keynesian/cartalist perspective emphasizing the vital nexus between the treasury and central bank present at the federal level of sovereign states. Establishing this link for the euro at the central level, i.e. pairing the ECB with a Euro Treasury (albeit a treasury without discretion), emerged as condition sine qua non for healing the euro's potentially fatal birth defects.

The Euro Treasury scheme proposed here represents a minimalistic but functional fiscal union that is specifically designed not to be a transfer union. In this scheme the Euro Treasury stands separate from the EU budget, which remains the focal point of any redistribution within the EU. Based on a fixed rule and member states' GDP shares, the Euro Treasury funds the union's public investment spending and taxes members in order to service the interest on the common debt. The fixed-rule arrangement pays tribute to the fact that Europe's currency union is not a political union yet.

It is argued that steady deficit spending from the euro center is necessary to actually enable member states to gradually reduce their national public indebtedness to low and safe levels – an outcome that would resemble the situation in the U.S. In other words, the Euro Treasury is the missing element that will mend the current fiscal regime that is dysfunctional and unworkable without it. The so-called Stability and Growth Pact would finally earn its title if complemented by the Euro Treasury scheme. It is also argued that the proposed Euro Treasury scheme would end the currently unfolding euro calamity by switching policy from a public thrift campaign that can only impoverish Europe to a public investment campaign designed to secure Europe's future. No mutualization of existing national public debts is involved. The ECB would be given a chance to become "clean" again as it would henceforth only deal in Euro Treasury debts but not touch national public debts anymore. Nothing else is asked from the ECB but to interpret its mandate in a properly stability-oriented and enlightened fashion.

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