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The ECB's Fiscal Policy

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The ECB's Fiscal Policy

Abstract

While the ECB helped mitigate the euro crisis in the aftermath of Lehman, it has stretched its monetary mandate and moved into fiscal territory. This text describes and summarises the crucial role played by the ECB in the intervention spiral resulting from its bid to manage the crisis. It also outlines ongoing competitiveness problems in southern Europe, discusses the so-called austerity policy of the Troika, comments on QE and presents two alternative paths for the future development of Europe.

JEL-Codes: E020, E500, E520, E580, H500, H600, H630.

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1. Preface: Why the ECB cannot Japanize

Given that I am presenting this lecture in Japan, it might be worth beginning by explaining why the ECB cannot pursue economic policies like those implemented by Japan's central bank. When the Japanese economic bubble burst in 1990 and Japanese banks ran into trouble in the mid-1990s when they could no longer hide the burden of non-performing loans, the Japanese central bank began its policy of unprecedentedly loose monetary policy, expanding the monetary base by a total of 947% from 1995 to 2017 although the nominal growth of the economy during this period was close to zero (6.6% in toto over the 22 years). It reduced the short-term annual interest rate from 1.75% to 0.5% in 1995 and the rate has remained at around that level up to the time of writing.[1] This policy has inspired the Fed, the Bank of England and also, to some extent, the European Central Bank (ECB), which have all implemented very loose monetary policies in recent years too.

However, for a number of reasons, the ECB has a more limited mandate than the other central banks and cannot really "Japanize", given the mandate with which it has been endowed by the Maastricht Treaty. It is not the central bank of a state, but of a group of sovereign nation states, which has been unable to create anything that even remotely resembles Japan or the United States of America. The EU also seems a long way off satisfying the most essential pre-condition of a political union, which is dismantling national armies and placing them under a common European control. In the absence of a political union, the fiscal implications of monetary policy are a far more crucial and sensitive issue in the EU than they are in Japan or the US; and face severer constraints.

For these reasons, the ECB has been given a lexicographic preference structure, with price stability as its unique goal. This goal cannot be compromised by others like sustaining employment or economic growth. In this respect it is very different from other central banks. The ECB can only operate within the boundaries it has been given by parliaments; it has no "competence competence", i.e. it cannot independently define the boundaries of its mandate. It works on the principle of conferral, i.e. it can only carry out those functions that it has been explicitly given. Among other things, this excludes the pursuit of economic policy. It is worth noting that Article 123 of the Treaty for the European Union (TFEU) specifies that the ECB

[1] IMF International Financial Statistics, *Interest Rate Selected Indicators, Japan, Discount Interest Rate*, 2018, retrieved from: http://data.imf.org/; Bank of Japan, *Statistics, Monetary Base*, 2018, retrieved from: https://www.boj.or.jp/en/statistics/boj/other/mb/index.htm; Cabinet Office, Government of Japan, *Statistics, National Accounts, Quarterly Estimates of GDP*, 2018, retrieved from: http://www.esri.cao.go.jp/index-e.html. 2001 the rate was reduced to 0.1%, 2006 increased to 0.4%, and 2007 to 0.75%, and since 2008 it has been kept at 0.3%.

must not monetize public debt, while Article 125 excludes the bail-out of states in financial difficulty.

Germany insisted on these restrictions as a condition for giving up the deutschmark for fear that the ECB would pursue excessively loose and expansionary monetary policies of the type implemented by some southern central banks, particularly the Banca d'Italia, for decades. Moreover, it feared that the ECB would use its power to carry out redistributive policy measures and drive down the spreads of southern European debt through mutualization policies. Such policies would not be compatible with the German constitution and could not even be approved by German parliament with a qualified majority, as budget decisions remain the inalienable right of the national parliament. A change would require a referendum.

2. The Intervention Scale: Seven Steps

However, the reality of the ECB's policies adopted under the protection of formal independence turned out to stretch – if not transgress – the boundaries of the ECB's mandate. This prompted the German Constitutional Court to appeal to the European Court of Justice, and it lead to the resignations under protest of German Bundesbank President Axel Weber and the ECB's chief economist Jürgen Stark. Indeed, the introduction of the euro and the Lehman crisis drove European institutions, including the ECB, into an intervention spiral of unprecedented dimensions which, step by step, led the bank deeper and deeper into fiscal territory. All of these steps were rational reactions to the different stages of the crisis and there seemed to be no alternative to them in view of the overarching goal of keeping the Eurozone together. However, taken together, they substantially changed the nature of the Treaty of Maastricht signed by the EU countries.

The intervention spiral can be broken down into the following seven steps.

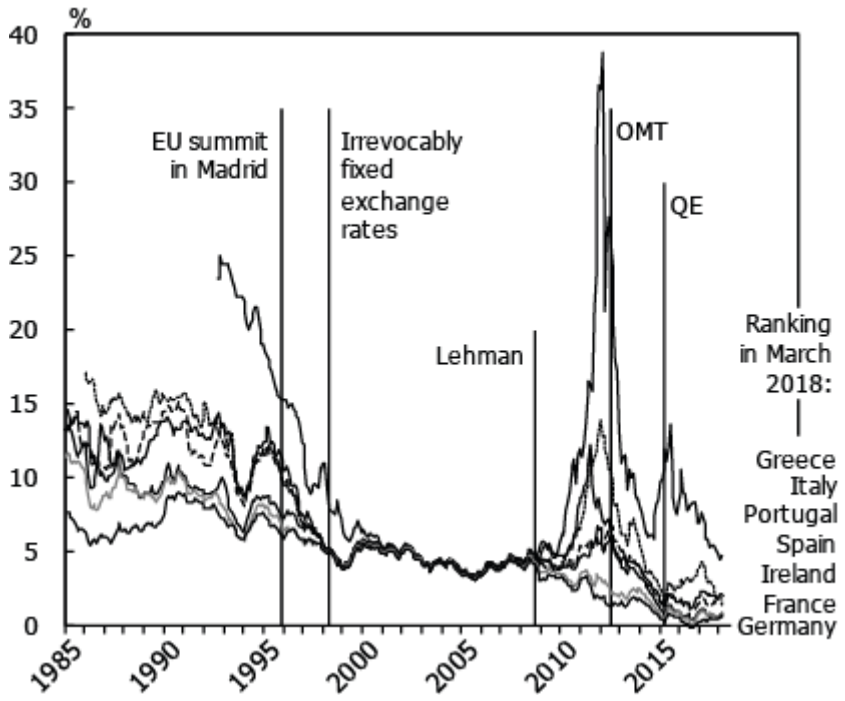
I) The first step came with the ultimate and firm announcement of the launch of the euro at the 1995 EU summit in Madrid.[2] As shown in Figure 1, this quickly reduced interest spreads, bringing all rates down to the German level. In Italy, Spain and Portugal, for example, rates fell by around 500 basis points. The Italian state could have abolished its value added tax in exchange without facing a shortage of funds (Sinn, 2014, p. 52). The Greek rates, which had

[2] European Council, *Madrid European Council 15 and 16 December 1995 Presidency Conclusions*, 1995, retrieved from: http://www.europarl.europa.eu/summits/mad1_en.htm.

been around 25% p.a. in the mid-1990s, came down even more dramatically, albeit a little later, once it was clear that Greece would be able to join the Eurosystem in 2001.

The interest rate reduction made it possible to consume the saved interest. Private and public borrowers were able to spend more money on consumption and investment, thus inducing a strong Keynesian stimulus for the advantaged economies. Moreover, the lower rate provided incentives to borrow even more. In Greece and Portugal, the governments borrowed to increase transfers, public wages and public investment. In Spain and Ireland, the emphasis was more on the private sector. People borrowed cheap funds from their banks and invested in real estate, which created unprecedented bubbles in the real estate markets. In the end it did not matter how the cheap foreign credit entered the economies, whether it was via the government sector or the private sector, as the beneficiaries of government expenditure bought goods in the private economy, and the beneficiaries of private expenditure had higher incomes, from which they paid higher taxes to the state. The end result was an inflationary credit bubble that deprived the inflating countries of their competitiveness, implied huge current account deficits and burst when the Lehman crisis swept over to Europe. All of a sudden interest spreads rose again, and in some cases to even higher levels than before the introduction of the euro.

Figure 1: Interest rates on ten-year government bonds



Source: Thomson Reuters Datastream, Category: Interest Rates, Benchmark Bonds.

II) The second step followed directly after Lehman. It was characterized by local money creation to compensate for the dramatic slump in private capital imports, and even for capital flight from southern Europe and Ireland. Essentially foreign investors stopped rolling over debt and wanted their money back. As the huge current account deficits could no longer be financed with fresh foreign credit and maturing old debt had to be redeemed, huge net payment orders totaling hundreds of billions of euros to other countries emerged. Without compensatory additional credit courtesy of the local printing presses, international payment orders would quickly have dried up domestic liquidity (Sinn and Wollmershäuser, 2012). As will be explained below, it was possible for the local central banks to provide the extra credit from local printing presses thanks to various policy actions by the ECB, including its collateral policy for refinancing credit and tolerating local emergency credits.

III) In addition, and this was the third step, the ECB asked the national central banks to buy the government bonds of southern countries as well as Ireland, within its so-called Securities Markets Programme (SMP).[3] A total of 223 billion euros was spent on this program. No equivalent program exists in the USA, for example, as the Fed does not buy any bonds from regional state governments. These purchases were indirect credits to the states, as these states were able to issue the same amount of new debt without changing the debt conditions, thus replacing the bonds that went to the central banks.

IV) The fourth step was defined by two official fiscal rescue programs: the EFSF set up in May 2010 and the ESM set up later on in 2012 by intergovernmental contracts between the euro states for the purpose of helping the GIPS counties, i.e. Greece, Ireland, Portugal and Spain.[4] The beginning of the EFSF coincided with the ECB's SMP decision as of early May 2010. One of the reasons for the fiscal rescue programs was that policy makers, at least in Germany, were afraid that the ECB's government bond purchases would violate the ban on state debt monetization, as specified in article 123 TFEU. If someone had to rescue states, it should be them rather than the ECB. Indeed, it was the fear of violating article 123 TFEU that triggered the resignations of the then Bundesbank president Axel Weber and the ECB's Chief Economist Jürgen Stark.

[3] European Central Bank, Decision of the ECB of 14 May 2010 Establishing a Securities Markets Programme (ECB/2010/5), 14 May 2010. *Official Journal of the European Union*, L 124, p. 8.

[4] Euro-Area Member States, EFSF Framework Agreement, 19 October 2011, retrieved from: https://www.esm.europa.eu/sites/default/files/20111019_efsf_framework_agreement_en.pdf; Euro-Area Member States, *Treaty Establishing the European Stability Mechanism*, T/ESM 2012-LT, retrieved from: https://www.esm.europa.eu/sites/default/files/20150203_-_esm_treaty_-_en.pdf.

V) The markets, however, were not convinced by the fiscal rescue programs as they found EU governments to be too parsimonious, and called for a much bigger intervention. This intervention, which is the fifth step in the sequence, came in September 2012, at the peak of the crisis, with the ECB's OMT program, after some prior informal agreements along these lines between the ECB president and selected heads of state. OMT stands for Outright Monetary Transactions. The name is highly deceptive: in reality OMT was nothing other than free-of-charge Credit Default Swap (CDS) insurance for Eurozone government bond buyers. The insurance was implied by the ECB's offer to buy back unlimited amounts of government bonds from the portfolios of investors, should a country get into trouble and ask for help from the ESM. "Whatever it takes" is the famous slogan characterizing this insurance protection. When pressed on the issue, the President of the ECB even declared that he would keep any write-off losses on his balance sheet should a country go bankrupt, thus excluding the re-denomination trick of early 2012, whereby the ECB managed not to participate in the write-off losses of Greek government bonds when the country defaulted, creating 105 billion euro in write-off losses for private investors.[5]

As Figure 1 shows, the OMT program immediately reduced interest spreads, which is a sign that private investors once again dared to buy government bonds from crisis-afflicted countries. More than anything the free-of-charge insurance offered by OMT, which was basically a fiscal subsidy equivalent to the spared insurance premium, helped to pacify markets and lure capital to countries that it would otherwise have fled given their recent history of bursting speculative bubbles.

VI) The next and sixth step in the sequence was the agreement on a banking union subject to joint European supervision with the aim of building up a common fund from the banks' own contributions to bail out failing banks, after some participation of bank lenders in the losses.[6] This step has not been fully completed and is subject to ongoing negotiations.

[5] Draghi (2012).

[6] *Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions "Towards the Completion of the Banking Union"*, COM/2015/0587, Strasbourg, 24 November 2015, retrieved from: http://ec.europa.eu/finance/docs/law/171011-communication-banking-union_en.pdf.

VII) The seventh step in the sequence is the ECB's QE program, which was enacted in January 2015 and took effect as of March 2015.[7] Basically, this program means that all central banks buy back their own countries' government bonds in proportion to country size, as defined by the ECB's capital keys. In addition, the ECB itself and the national central banks buy private sector bonds, even directly from private issuers. The overall size of the program encompassed government bond purchases worth a total of around 1.8 trillion euros by the end of 2017, as well as around 500 billion euros worth of private bond purchases. More purchases are planned for 2018 and possibly beyond. To avoid national risks, it was agreed that each central bank keeps the (algebraic) excess of the interest earned over the ECB's main refinancing rate for distribution to its national government, while paying interest equal to the ECB's main refinancing rate into the Eurosystem's common interest pool. It has to pay such interest with all money creating measures, including the provision of refinancing credit and all other asset purchases. The interest income given to the pool is redistributed to all national central banks in proportion to country size (capital key) and from there to the finance ministries of the respective countries. The QE purchases are being carried out with freshly printed base money. With an overall volume of 2.3 trillion euros by the end of 2017, QE constitutes a major expansion of the ECB's monetary base, which was just 1.2 trillion euros at the start of the program.[8]

Of the seven steps, four involve the ECB directly and constitute policies that, at least in part, can be seen as fiscal: the lending from local printing presses (II); the SMP (III); the OMT (V); and the QE program (VII). Lending from local printing presses is taking an overdraft credit from the Eurosystem, which in many respects is equivalent to the open fiscal rescue credits from the EFSF and ESM. Similarly, the SMP and the QE programme constitute public credit insofar as local governments can issue as many new bonds as the Eurosystem buys without overloading the market and being forced to offer their creditors higher interest rates. The OMT program is equivalent to a fiscal subsidy allowing a country's creditors to receive free-of-charge CDS insurance. And even the access to local printing presses as such, Step I, can be seen as an insurance-like privilege, as it was greeted by investors with a dramatic initial reduction of spreads, as shown in Figure 1.

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[7] *Introductory Statement to the Press Conference (with Q&A) by Mario Draghi, President of the ECB, Vítor Constâncio, Vice-President of the ECB*, Frankfurt am Main, 22 January 2015, retrieved from: https://www.ecb.europa.eu/press/pressconf/2015/html/is150122.en.html.

[8] European Central Bank, *Statistical Data Warehouse, Base Money*, 2018, retrieved from: https://sdw.ecb.europa.eu ; European Central Bank, *Expanded Asset Purchase Programme, History of Cumulative Purchase Breakdowns under the APP*, 2018, retrieved from: https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html.

Arguably, all of the ECB's quasi-fiscal activities can be seen as a combination of debt mutualization and outright public international credit provision undercutting the conditions that competitive capital markets would have required. Their rationale lies in the ECB's suspicion that markets fail and are unable to allocate scarce capital efficiently to rivalling uses. The ECB repeatedly speaks of market failure in terms of markets allegedly being unable to transmit the ECB's policies to the different countries and to understand the true safety that euro membership implies, alluding to the theory of multiple equilibria due to self-fulfilling expectations.[9]

3. Defeating the Debt Brakes

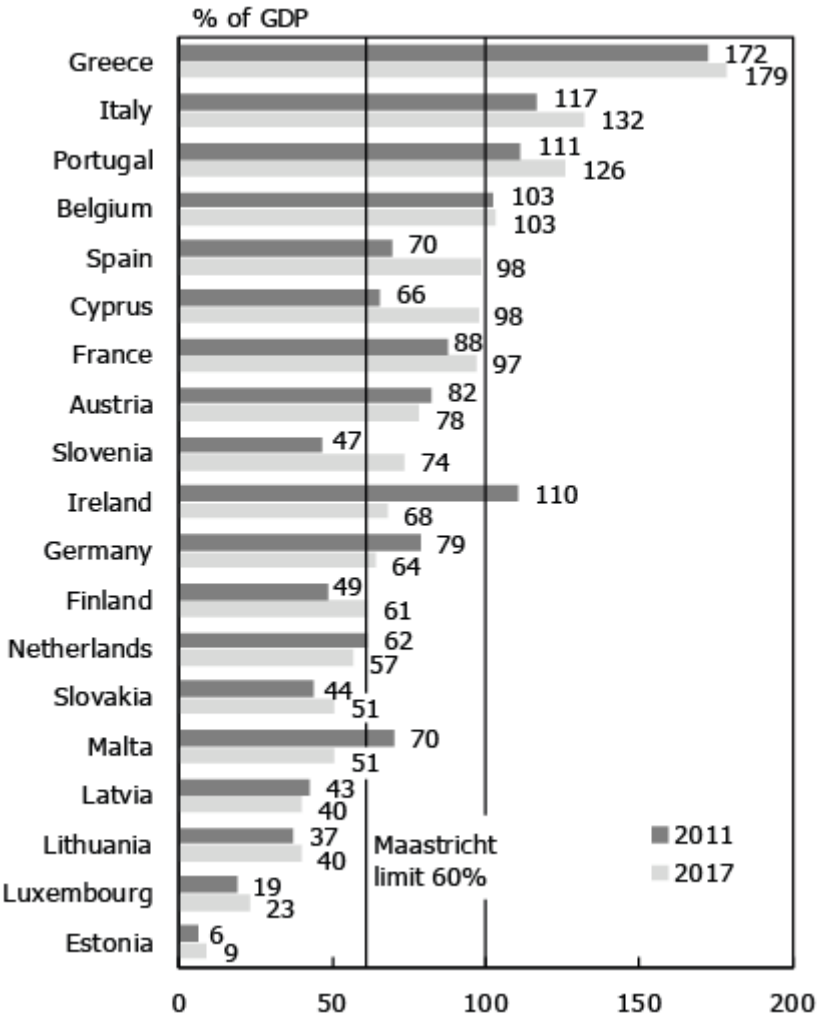
While the ECB has calmed markets and helped overcome the imminent crisis by giving heavily-indebted states access to fresh credit, it has also given them problematic incentives to borrow more than parliaments had foreseen and allowed. This is shown in Figure 2, which compares the public sector debt-GDP ratios in 2011 and 2016. Obviously, most euro countries with ratios above 60% in 2011 increased their debt-GDP ratios during this period, with the only exceptions being Austria, Ireland, Netherlands, Malta and Germany. It is worth noting that 60% is the allowed maximal debt-GDP level for euro countries, as specified in the Maastricht Treaty.

The increase in the debt-GDP ratios is particularly problematic insofar as all euro countries had promised in the enhanced fiscal compact of 2012 to reduce their debt-GDP ratios year by year by 1/20 of the distance to 60%.[10] This promise had been required in early 2012 by Germany as a precondition for offering its liability to creditors of problematic countries via the ESM; and for tolerating the ECB's various debt mutualization activities, including the OMT insurance provision. Germany's argument ran as follows: yes, we will help reduce the spreads to alleviate the interest burden for the crisis-afflicted and heavily-indebted countries of the south, but in exchange we want a guarantee that they will not abuse our assistance by borrowing even more than before. In retrospect, it was naive to believe that this deal would be respected.

[9] Ses Draghi (212) and Cœuré (2013).

[10] EU Publications Office, *Treaty on Stability, Coordination and Governance in the Economic and Monetary Union*, D/12/2, Brussels, 1 February 2012, retrieved from: europa.eu/rapid/press-release_DOC-12-2_en.pdf.

Figure 2: Public debt-GDP ratios in 2011 and 2017



Source: Eurostat, Database Economy and Finance, Government Statistics, Government Deficit and Debt.

Not only the Maastricht Treaty and the enhanced fiscal compact of 2012 were broken by many European countries. The old Stability and Growth Pact of 1996, which was Germany's precondition for ultimately giving up the deutschmark, was also violated.[11] According to that compact, a state's deficit-GDP ratio should always be close to zero and must never be above 3%, except in well-defined cases of emergency. There had been 168 transgressions of the 3% rule by the end of 2017, 47 of which were allowed due to sufficiently strong recessions. In 121 cases the compact was violated and the sinners should have been

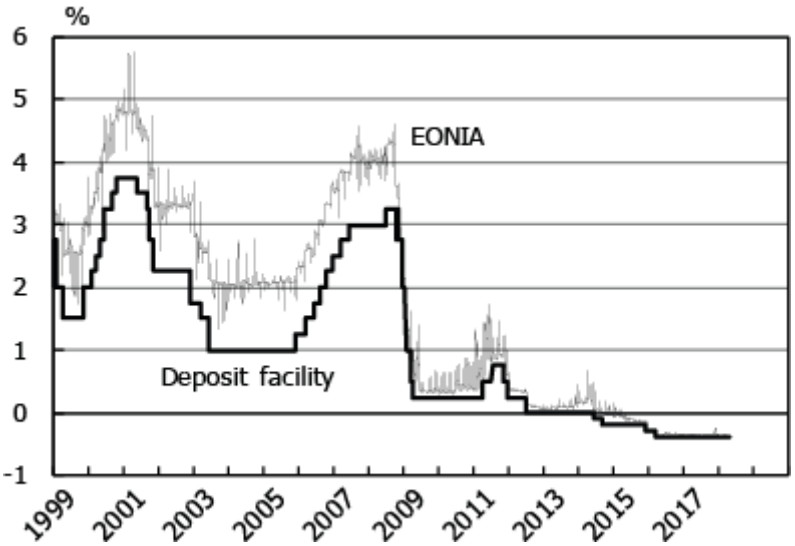
[11] European Council, *Dublin European Council 13 and 14 December 1996 Presidency Conclusions*, DOC-96-8, Dublin, 14 December 1996, retrieved from: http://europa.eu/rapid/press-release_DOC-96-8_en.pdf; European Council, *Resolution of the European Council on the Stability and Growth Pact*, 97/C 236/01, Amsterdam 17 June 1997, retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y0802(01)&from=EN.

punished.[12] In fact, however, none of them were ever punished. Ironically, Germany, which had demanded the compact, was among the first countries to violate it in the early years of the euro when it experienced its own euro crisis. Back then, many German economists argued that the compact would never be respected unless Germany would be the first country to pay the fines.

4. Massive Redistributive Effects

It seems likely that the ECB's policies have created strong international redistribution effects by depressing market interest rates. These policies include reducing the main refinancing rate to zero and the deposit rate to -0.4% on 16 March 2016, a rate that was rapidly adopted by the interbank market, as shown in Figure 3.

Figure 3: The ECB's deposit rate and the interbank market rate (EONIA)



Source: Deutsche Bundesbank, Statistiken, Zeitreihen-Datenbank, Notenbankzinsen, EZB-Zinssätze; ibidem, Statistiken, Zeitreihen-Datenbank, Zinssätze und Renditen, Geldmarktsätze.

In addition to the short term rates, the ECB's actions, and particularly OMT and QE, reduced the long-term rates after 2012, as demonstrated in Figure 1.

All these interest reductions helped the debtors and imposed losses on their creditors. Among the debtors were all European governments. They obviously benefitted massively by

[12] Own calculations based on Eurostat, *GDP and Main Components, GDP, Current Market Prices, Chained Volumes (2010)*, retrieved from: http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do. Eurostat, *Government Deficit/Surplus, Debt and Associated Data, Share of GDP*, retrieved from: http://appsso.eurostat.ec.europa.eu/nui/show.do?wai=true&dataset=gov_10dd_edpt1.

having to pay lower rates on their outstanding debt, and there would certainly have been many more violations of the EU's deficit criteria than reported above, had the European states been obliged to pay higher interest rates. For a country like Italy, for example, whose public debt-GDP ratio was 132% by the end of 2017, each percentage point more interest means ceteris paribus an increase in the deficit rate of about 1.3 percentage points. Instead of the reported 2.3%, the country would have had a deficit rate of 6.2% in 2017 had the interest rate been 3 percentage points higher as would have been normal prior to the Lehman crisis (see Figure 1).

More pronounced redistributive effects can be expected on the country level, as some euro countries have negative net foreign investment positions due to huge current account deficits accumulated in the past, while others with large current account surpluses have positive positions. The latter include Germany, which was the country with the world's largest net foreign investment position after Japan by the end of 2017, with a sum of 1.9 trillion euros in absolute terms and 59% of GDP.[13] The former include the six formally recognized crisis countries, which received fiscal rescue funds and benefitted from the SMP. These countries, referred to here as GIPSIC, are Greece (-141%), Ireland (-156%), Portugal (-106%), Spain (-81%), Italy (-7%) and Cyprus (-120%).[14] A country's net external debt is defined for the purposes of this article as the negative of the respective net international investment position.[15]

Figure 4 offers a glimpse of the absolute interest advantage these countries taken together may have enjoyed thanks to the low interest rates. It compares the time path of their actual net payments of capital income to the rest of the world (negative net foreign investment income, lower curve) and the fictitious capital income that they would have had to pay, had the average actual rate of return remained constant at the 2007 level (upper curve), the latter being defined as the ratio of capital income payments to the rest of the world and the negative of the net foreign investment position. The graph shows that despite the initial surge in market interest rates (Figure 1) and the originally huge current account deficits of the GIPSIC countries, which meant a steady accumulation of net foreign debt, the external interest burden of the respective economies has not risen during the crisis; and has even remained somewhat

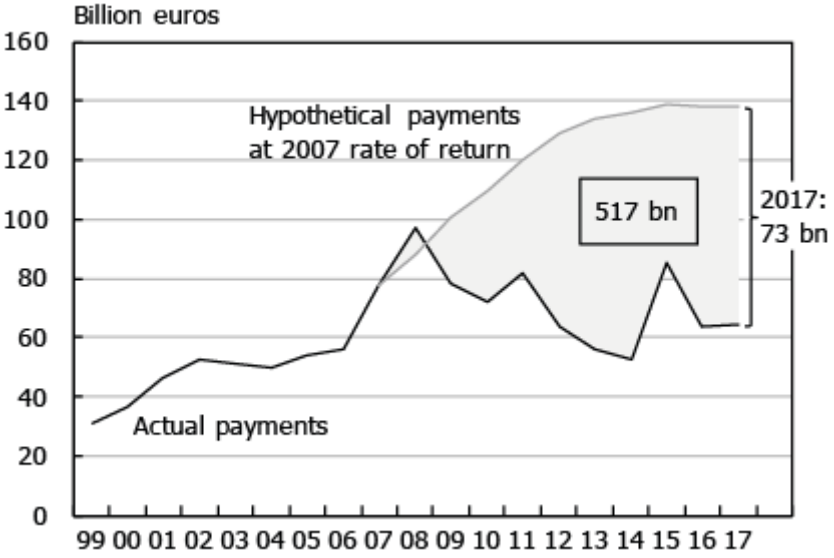
[13] Eurostat, *International Investment Position - Quarterly Data, Million Units of National Currency, Net Positions at the End of Period*, 2018, retrieved from: http://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tipsii41&language=en ; Eurostat, *Net International Investment Position - Quarterly Data, % of GDP, 2018*, retrieved from: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tipsii40&plugin=1.

[14] Eurostat, *Net International Investment Position - Quarterly Data, % of GDP*, 2018, retrieved from: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tipsii40&plugin=1.

[15] Note that since 2014 the current account statistics have been prepared according to a new methodology (Balance of Payments and International Investment Position Manual, Sixth Edition: BPM6).

below the 2007 level in absolute terms. As the upper curve shows what the external interest burden would have been, had it been necessary to serve growing external debt at the 2007 rate of interest, the area between the two curves gives an estimate of the interest advantage of the GIPSIC countries.

Figure 4: GIPSIC net investment income paid to other countries



Source: Eurostat, Database Economy and Finance, Balance of Payments – International Transactions (BPM6), Balance of Payments Statistics and International Investment Positions.

Note: Hypothetical net interest payments are defined as the product of the actual net foreign investment position and the 2007 average rate of return that was actually paid on net foreign debt (in the sense of a negative net foreign asset position).

The graph shows that in 2017 alone, the GIPSIC countries saved as much as 73 billion euros in interest payments. Over the ten years from 2008 to 2017, they saved a total of 517 billion euros. Had the rate of interest remained at its 2007 level the countries would have had to import fewer goods worth 517 euros to sustain the same time path of their net foreign asset position.

The true cause of this interest saving is debatable. Was it policy, was it the change in market conditions? However, in view of the information given in Figure 1, which shows that the GIPSIC market rates all were rising sharply after Lehman until the OMT changed the situation, it seems safe to say that using the 2007 average rate of interest for the benchmark calculation gives the lower boundary of the interest gains resulting for political interventions of the ECB and the rescue funds. The fiscal rescue credits, the overdraft credits in the form of extra local money printing (as measured by the Target balances, which will be discussed in

greater detail in Section 6) and the interest reductions resulting from the OMT promise were presumably largely responsible for the interest savings.

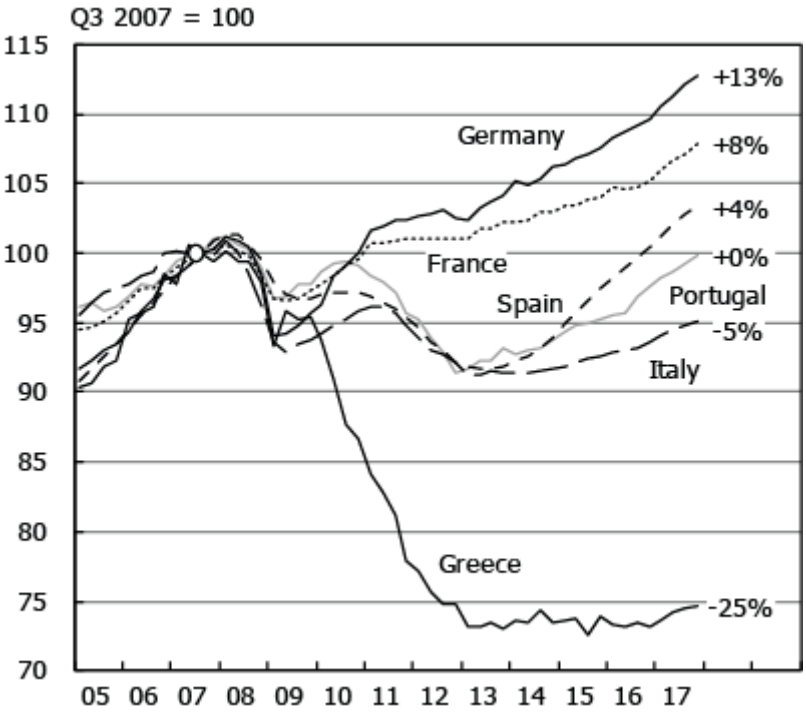
5. The Keynesian Recovery

The interest savings implied a strong increase in disposable income relative to the base line scenario with 2007 interest rates. This, in turn, set Keynesian multiplier effects in motion, as governments and private agents used the funds they did not have to transfer to foreign creditors for local expenditure of all kinds. In addition, the lower interest rates made it attractive to borrow even more funds to finance public and private investment and consumption, which created a second Keynesian stimulus. As explained in Section 3, the barriers created by legal debt constraints turned out to be way too weak to stem the tide. The outcome was that the crisis-afflicted economies of the south ultimately managed to pull through the most arduous phases of the crisis.

As shown in Figure 5, GDP recovered in southern Europe and France, with the exception of Greece. After ten years of crisis Spain and Portugal have not been able to significantly surpass the pre-crisis GDP level like France and Germany, for example, but they at least came close to this level.[16] Italy also seems to have pulled through the worst of the crisis, although in Q4 2017 its GDP still was 5% smaller than a decade ago, in Q3 2007.

[16] GDP also recovered strongly in Ireland. However, the Irish data are not comparable as the recovery largely resulted from relocation of profit bases to Ireland, rather than from real economic effects. This is the reason for the Irish statistical office's decision to focus on a new indicator, namely gross national income (GNI) in 2017. See Irish Statistical Office, *Central Statistics Office (CSO) Response to the Main Recommendations of the Economic Statistics Review Group (ESRG)*, 3 February 2017, retrieved from: http://www.cso.ie/en/media/csoie/newsevents/documents/reportoftheeconomicstatisticsreviewgroup/ESRG_CSO_response_3_Feb_2017.pdf.

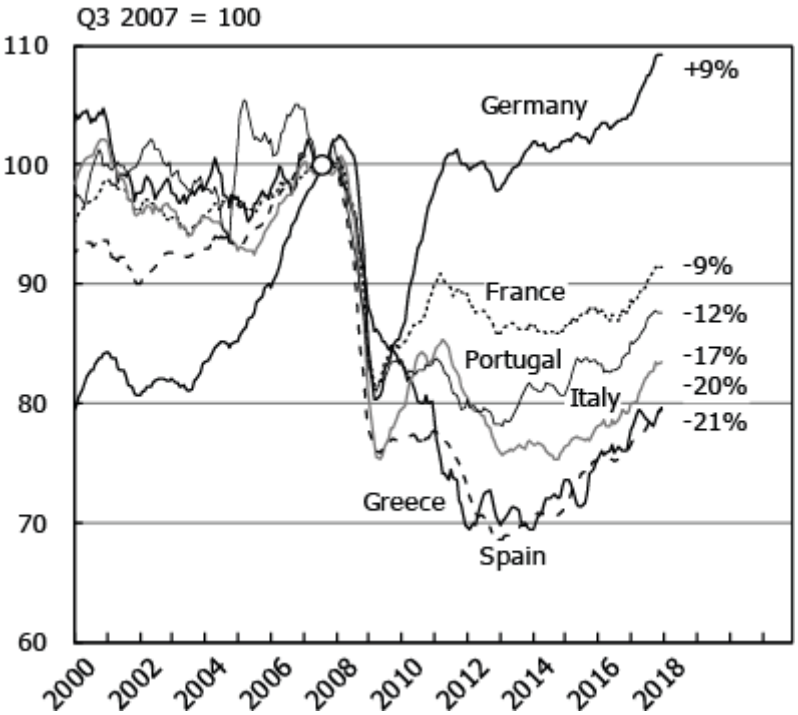
Figure 5: Real GDP – Keynesian recovery, quarterly data



Source: Eurostat, Database Economy and Finance, National Accounts (ESA 2010), Quarterly National Accounts, Main GDP Aggregates.

However, GDP recovery is largely concentrated on the non-traded goods sectors that directly benefit from improved local credit conditions for governments. If governments spend more money on wages and pensions, for example, local services consumed by the recipients of these funds expand, but this does not necessarily benefit the traded-goods sectors, above all manufacturing. Manufacturing output, as shown by Figure 6, paints a far less favorable picture of the recovery. Obviously, all Mediterranean countries, including France, have struggled to even come close to their pre-crisis levels. By the end of 2017, Italy was 17% below the level achieved ten years earlier, while Spain and Greece lagged around 20% behind their previous levels. Even France was trailing 9% behind its pre-crisis peak. These numbers shed light on the economic difficulties that have led to the sharp and dramatic rise of radical parties in these countries in recent years. They also suggest that the somewhat shaky "recovery" shown in Figure 5 may prove little more than a Keynesian flash.

Figure 6: Manufacturing output

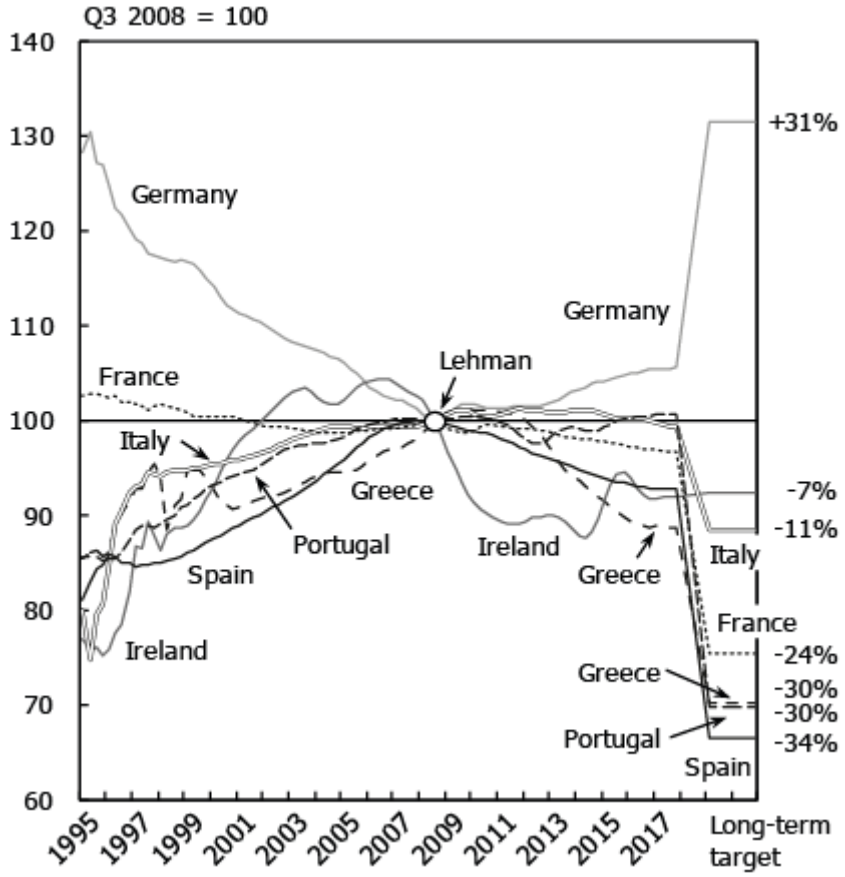


Source: Eurostat, Database Industry Trade and Services, Short-term Business Statistics, Industry, Production in Industry.

This disappointing outcome did not necessarily come about despite the Keynesian recovery, but perhaps even *because* of it. The reason for this is that a government driven Keynesian boom boosts the non-traded goods sectors and helps maintain the overdrawn wages that developed in the pre-crisis bubble, thus undermining the competitiveness of the traded-goods sectors, a typical Dutch disease phenomenon.

Figure 7 confirms this interpretation by showing the GDP deflators of various countries relative to the rest of the Eurozone as published by Eurostat. For the purpose of drawing the figure, the GDP deflators were normalized such that they all attained the value of 100 at the time of the Lehman crisis (Q3 2008), which obviously is the point in time at which most of the relative price levels of the GIPSIC countries peaked.

Figure 7: Real effective exchange rates in the Eurozone (GDP deflator relative to respective rest of the Eurozone)



Sources: European Commission, *Business, Economy, Euro*, Economic Databases, Price and Cost Competitiveness, Quarterly Real Effective Exchange Rates vs. (rest of) EA19, Price Deflator GDP, Market Prices; Pill et al. (2012); own calculations.

Note: The chart shows real effective exchange rates, normalized to 100 in Q3 2008. The real effective exchange rate shown here is defined as the ratio of a country's GDP deflator and the trade-weighted average GDP deflator of the rest of the Eurozone. The end points in the diagram giving actual data refer to Q4 2017. The horizontal bars on the right-hand side of the graph show model-based median estimates of long-run target levels as calculated by Pill et al. that would be necessary to bring the countries' net foreign investment positions into the range from minus to plus 25% of GDP after a period of 20 years, given the average real exchange rate of the euro with regard to the rest of the world. The authors report estimates of the respective national target price levels relative to the average of the Eurozone. To make these estimates compatible with the Eurostat data they were converted to target price levels relative to the respective rest of the Eurozone. Note that while this conversion is unimportant for small countries, it may generate larger deviations for bigger countries like Germany. Germany's target price level relative to the average of the Eurozone that is equivalent to the 31% shown in the graph is only 20%.

The figure also confirms the description of the euro bubble given above in the context of Figure 1 by showing that the southern European countries and Ireland all underwent an inflationary boom, if not bubble, before Lehman. This boom deprived them of their competitiveness. The resulting current account deficits were no problem as long as these countries were financed by the capital market, but after Lehman foreign funds became scarce,

and while helping to avert a disaster, credit from local printing presses was not enough to avoid austerity. This was the period when price trends had to reverse to re-establish competitiveness. As can be seen, this happened in Ireland, Greece and Spain, but not in Italy and Portugal.

In fact, Ireland ran into trouble back in autumn 2006, two years before Lehman and began a process of real devaluation via wage and price cuts. As can be seen, this process was already in full swing when the Lehman crisis broke out and it terminated in 2011, when Ireland received support from the rescue fund EFSF. Obviously, this also was a Dutch-disease type of reaction, countering the EU Commission's view that its own actions helped Ireland to recover.

The right-hand side of the figure features estimates of the long-term target values for price levels derived from a study by the economics department of Goldman Sachs (Pil et al. 2012). These target values were calculated from long-term growth models under the assumption that the respective countries' net foreign asset positions should be in the band of plus/minus 25% of GDP after a period of 20 years, given the real exchange rate of the euro with the outside world. Greece, Portugal and Spain, which all had negative net asset positions of close to 100% or more, needed substantial real devaluations to generate sufficiently large trade surpluses to achieve this goal. Italy, by contrast, which was far less indebted abroad, needed proportionately lower adjustments.

As the graph shows, Ireland has successfully done the job. Spain and Greece are on the right track, but still have to go a long way. Italy and Portugal, by contrast, have made no real bid to embark upon the necessary process of real devaluation.

Germany, whose price level reveals a mirror development, on the other hand, has been inflating more than the rest of the Eurozone for some time now. But the path towards re-establishing competitiveness in southern Europe is long. It is worth bearing in mind that the real exchange rates shown in the figure are defined as a country's price level relative to the rest of the Eurozone, rather than the average. For Germany, which is a big country, an appreciation of 31% against the rest of the Eurozone is equivalent to an appreciation of around 20% against the average.

In principle, there are only four dismal options for dealing with the problem. The first involves a disinflation, if not outright deflation, in southern Europe. It is painful, as it implies stagnation and potential difficulties for long-term debtors and tenants with nominally fixed payment obligations and can be compared to a form of chemotherapy.

The second is re-inflating the north to catch up with the increased price levels in the south. This expropriates savers who invested in securities and savings accounts and violates the ECB's price stability target.

The third is implementing a transfer union whereby the north permanently co-finances living standards in the south. It is expensive, as the euro countries in difficulty comprise about 40% of the Eurozone population. It would drive the south into a permanent Dutch disease of the kind prevailing in the Italian Mezzogiorno, Spanish Andalusia or ex-communist eastern Germany, sustaining wages above the competitive market equilibrium.

The fourth way is (temporary) exits to allow countries to formally devalue, accompanied by haircuts for external debt and subsidies for essential imports. It requires capital controls like those recently implemented in Greece and Cyprus until the exit has taken place and the exchange rate can freely adjust. As is well known, Greece was very close to such a solution in summer 2015, given that 16 Eurozone finance ministers had opted for it and even Greek finance minister Yanis Varoufakis had secretly prepared a plan to install a parallel currency in Greece. George A. Papandreou would also have preferred such a solution back in 2011, as he publicly revealed in 2016.[17]

6. Self-service with the Printing Press

While exits would quickly resolve the competitiveness problem, there are two reasons why countries are reluctant to choose this solution. One is the difficulties involved in increasing foreign debt levels relative to domestic GDP, as measured after devaluation, or in foreign investors accepting write-offs, respectively. The other is the easy access to the euro printing press, which the Eurosystem provides, to fulfill international payment obligations, as already mentioned in Section 2. The right to print a currency that other countries accept as legal tender is an overwhelmingly strong incentive to stick to the euro, despite the mass unemployment resulting from being overpriced.

Contrary to the widespread belief that euros are minted in Frankfurt and lent out to the euro countries in proportion to country size, the truth is that, within the Eurozone, national central banks have a lot of autonomy to deviate from proportionally issuing credit to the national economy. Within extremely loose rules laid down by the ECB they can issue more money by way of providing refinancing credit to local banks or buying more assets if needed.

There are three channels for making self-service with the printing press possible.

[17] He made this comment at a pre-conference event on the eve of the Munich Security Conference on 11 February, 2016.

Firstly, every central bank has the right to issue unlimited amounts of emergency liquidity (ELA), i.e. to provide credit from the local printing press to local banks according to its own collateral rules. It does not need the permission of the ECB Council, the governing body of the central bank in Frankfurt, to do so. However, the Council does have the right to stop ELA if a majority of two thirds of votes can be assembled. Alas, during the initial crisis years, before the Baltic states joined the EU, the GIPSIC countries, which had all made use of ELA, had more than a third of the council votes and could not have been stopped, even if all of the other euro countries had wanted to do so. ELA credit was issued for several hundreds of billions of euros during the crisis.

The second channel is the Eurosystem's Agreement on Net Financial Assets (ANFA). This is a secret agreement between the central banks enabling them to issue local money for the purpose of buying assets at their own discretion and running their own business models. The agreement was detected by Daniel Hoffmann, a doctoral student from the Technical University of Berlin, and subsequently published by the ECB.[18] The Banca d'Italia, for example, bought 105 billion euros worth of government bonds under the ANFA rules with freshly-created domestic money.

ANFA and ELA credit is a credit available to the local central banks at the ECB's main refinancing rate (which has been equal to 0.05 since September 2014 and zero since March 2016)[19] and can be transferred to the private economy at the national central bank's own risk. Any interest surcharge it owns belongs to itself alone and can be distributed to the respective national treasury, and any losses it incurs have to be financed from its own resources without other central banks sharing them.[20]

The third channel for over-proportionally issuing credit with freshly created money to the domestic banking sector is implied in the ECB's collateral policy (Sinn, 2012a, pp.150-163; 2014, pp. 153-165). To draw ordinary refinancing credit from its national central bank, a commercial bank has to provide sufficiently good collateral. Before the crisis, the collateral rules were very strict, and only very safe assets were accepted. As banks in the GIPSIC

[18] European Central Bank, *Agreement of 19 November 2014 on Net Financial Assets*, Confidential, 5 February 2016, retrieved from: https://www.ecb.europa.eu/ecb/legal/pdf/en_anfa_agreement_19nov2014_f_sign.pdf. The dissertation of Hoffman (2015) was formally submitted and discussed among specialists before this publication date.

[19] European Central Bank, *Statistical Data Warehouse, Official Interest Rates, ECB Main Refinancing Operations, Fixed Rate Tenders,* 2018, retrieved from: https://sdw.ecb.europa.eu/browseTable.do?node=9691107.

[20] There was a debate about whether or not the interest on ELA credit belonged to the central bank issuing this credit. It was clarified in Fuest and Sinn (2016) that interest to the extent of the main refinancing rate has to be transferred to the Eurosystem's interest pool, while any excess or loss in deviation from that interest is to be captured or born, respectively, by the national central bank alone according to the rules of the Eurosystem.

countries ran out of good assets during the crisis, however, the ECB Council reduced the required collateral quality in a multitude of single decisions to the no-investment grade territory, and even accepted assets generated by ring trading between banks so as to enable banks to draw more and more credit from their local central banks.

The extra credit and liquidity that thus became available to the banks of crisis countries made it possible:

- To compensate for the missing foreign credit and the liquidity losses resulting from net payment orders to other countries to finance current account deficits, which in the initial years were still large (as before Lehman);
- To redeem foreign credit in cases where private foreign investors were no longer willing to roll over old credit; and
- To invest funds abroad.

It therefore enabled balance-of-payments deficits in the sense of net-payment orders to other countries as measured by the so-called Target balances. Target is an acronym for the ECB's internal international system of payment orders.[21]

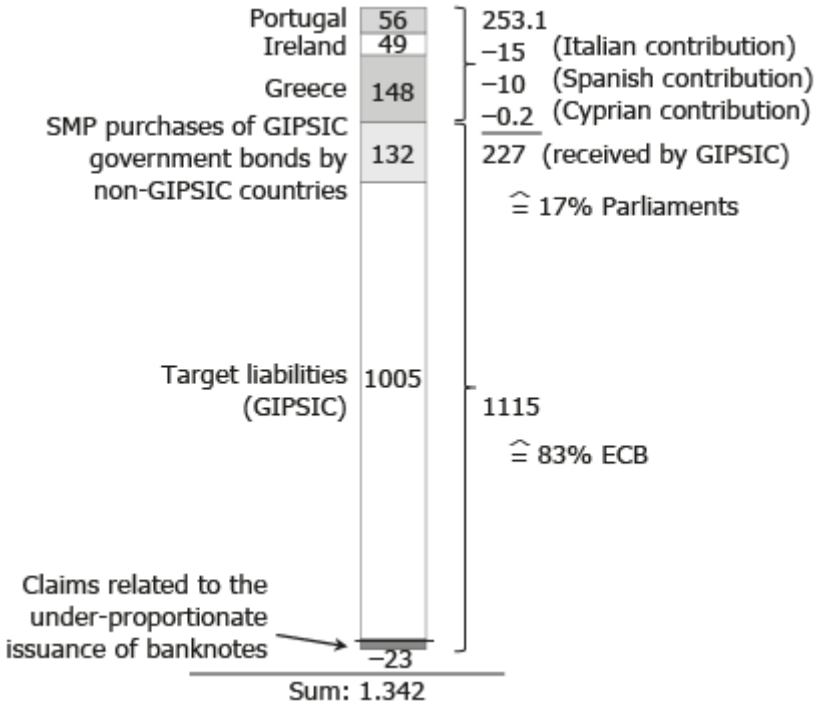
The Target balances measure a sort of overdraft credit in the Eurosystem provided by those central banks that have to carry out the payment orders and issue money to local banks without accumulating claims on them, money that the local banks transfer to the domestic recipients of the payments. The recipient of the Target credit is not the recipient of the payment, but the respective other central bank that gives the payment order. The other central bank withdraws local liquidity by accepting the international payment order coming from a local commercial bank and normally replenishes local liquidity by issuing new local credit to commercial banks via the mechanisms explained above. The Target credit cannot be called due, but needs to be serviced at the main refinancing rate, which however, as mentioned, has been practically zero since 2014. A national central bank's Target claim is part of the nation's net foreign asset position.

Figure 8 gives an overview of all public credit that had been delivered to the GIPSIC countries by the peak of the crisis in August 2012, including the Target credit, the SMP credit (explained in Section 2) and the fiscal rescue programs, providing money from the EU, the IMF, and the Eurozone governments. The credit came from public sources and was granted to local states and banks, which then handed it on to local companies, individuals and states. As can be seen, the sum of all credit stood at 1,342 billion euros, but the Target overdraft credit,

[21] For the basic role of Target balances in the Eurosystem cf. Sinn and Wollmershäuser (2012), Sinn (2014), and Steiner (2016).

totaling 1,005 billion euros, dwarfed all other items. Netting out the GIPSIC countries' own contributions[22] reduces the overall amount of credit flown to the GIPSIC countries to 1,316 billion euros[23] and implies that 83% of the aggregate public credit provided to these countries by the rest of the euro countries was delivered through the Eurosystem, while only 17% was approved by parliaments.

Figure 8: Public international lending to the GIPSIC countries (billion euros, August 2012)



Source: ifo Institute, The Exposure Level - Bailout Measures for the Eurozone Countries and Germany's Exposure, Column 1, and the sources cited there, retrieved from: https://www.cesifo-group.de/ifoHome/policy/Haftungspegel.html

Note: The graph shows the sum of all public credit, net of potential repayments, provided by international institutions (IMF, ECB, EU, EFSF, ESM) to local central banks of the GIPSIC countries and to local governments. The sum includes SMP purchases of GIPSIC government bonds by non-GIPSIC national central banks as such purchases make new bond sales to non-GIPSIC markets possible without forcing governments to offer better conditions. Such new bond sales as well as the genuinely fiscal rescue credits from international organizations replace and reduce the GIPSIC Target balances. While the upper parts of the column contain gross fiscal credit stocks, the calculation at the right, nets them with the GIPSIC countries' own contributions.

The asymmetry between the credits provided by parliaments and the Eurosystem is stunning. This asymmetry is a major challenge for European democracy, as the Eurosystem is governed by the ECB Council, which consists of national central bank governors and the

[22] The 123 billion euro SMP purchases are net of the GIPSIC's own contributions, the total SMP volume being 223 billion euros.

[23] This sum is also net of the GIPSIC countries' net claims due to an under-proportional volume of bank note issues, which is booked as a claim on other central banks in the national central bank balance sheets.

Eurozone directorate and is a purely technocratic body whose members enjoy immunity for all actions.

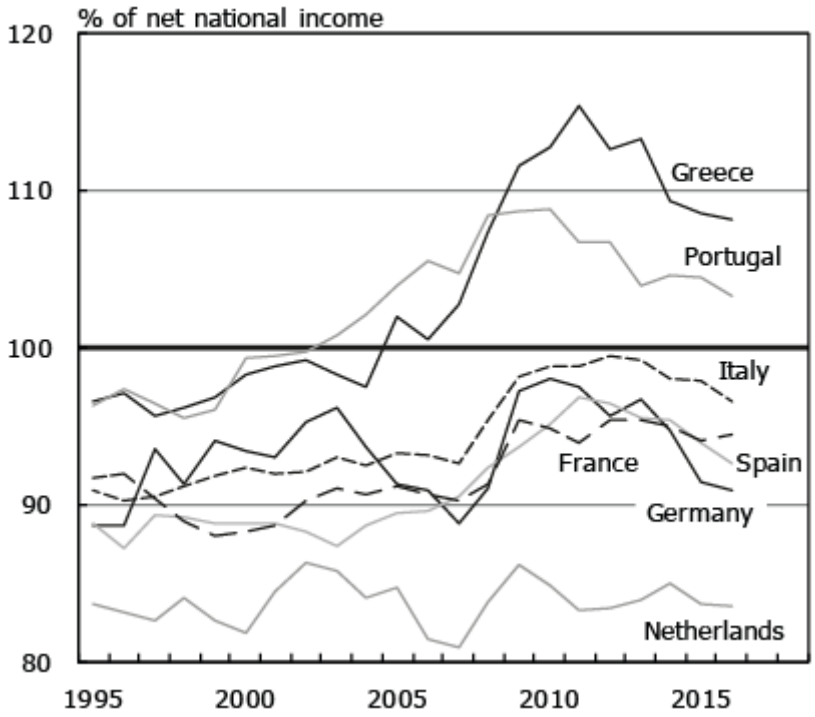
It is often argued one should not worry about the fiscal effects of monetary policy, as they are natural and unavoidable. While true in principle, this argument is overshadowed by the sheer magnitude of the international public credit coming from the Eurosystem. This credit is five times as large as the public credit that the parliaments deemed acceptable for taxpayers.

The credit provided by the ECB is ultimately provided by taxpayers, just like ordinary fiscal credit, as the nation states are (in most cases) the owners of the respective national central banks, which are entitled to collect the seignorage income from credit provisions. Any explicit write-off losses and any implicit losses resulting from interest relief provided to the debtors of the Eurosystem will have to be fully borne by European taxpayers alone, as these losses reduce profit distributions, unless monetary policy changes its inflationary stance and imposes the losses on money holders instead. This is true regardless of the fact that central banks could even operate with negative equity capital. Even if they do, the present value of central bank "dividends" paid out to public "shareholders" will always diminish by the full extent of the explicit and implicit losses.

7. Greek Austerity

Greece is an interesting case study that nicely illustrates the role of public rescue credit. Greek politicians often argue that the Troika consisting of the IMF, the EU and the ECB, imposed austerity on the nation, forcing the Greek government to tighten its belts beyond reasonable levels. This is clearly a distortion of the truth, as the austerity Greece experienced during the crisis exclusively came from the capital market, which was unwilling to continue financing the country. Instead, the Troika reduced and mitigated this austerity with public credit and credit guarantees, although perhaps not to the extent that the beneficiaries would have liked. The insufficiency of gifts from other countries was then called "austerity". The extent to which the austerity argument turns the truth on its head is shown in Figures 9 and 10.

Figure 9: Public and private consumption relative to net national income



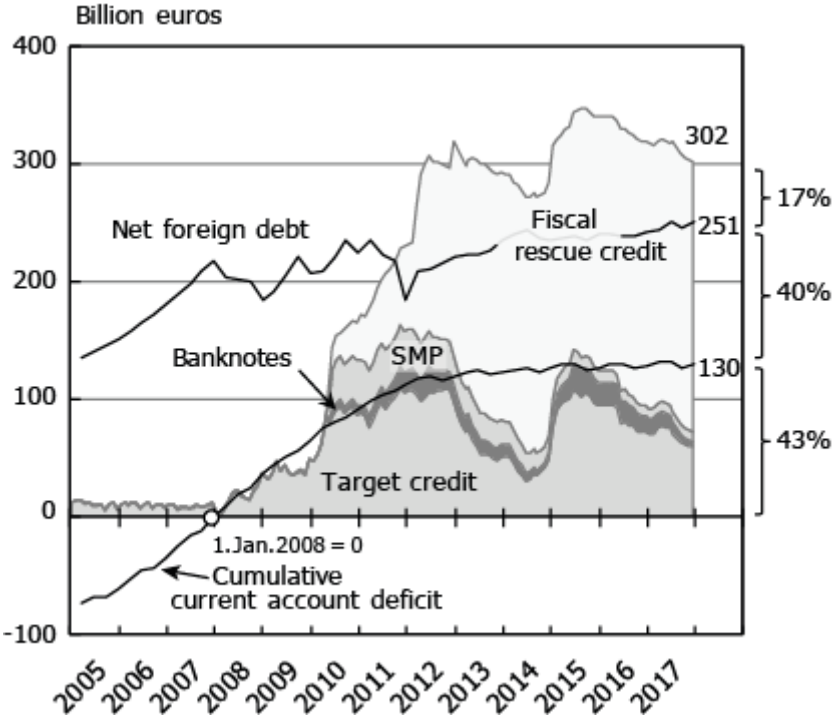
Source: Eurostat, Database Economy and Finance, National Accounts (ESA 2010), Annual National Accounts, Main GDP Aggregates, GDP and Main Components (Output, Expenditure and Income); Eurostat, Database Economy and Finance, National Accounts (ESA 2010), Annual Sector Accounts (ESA 2010), Non-financial Transactions.

Figure 9 gives the time paths of the sum of public and private consumption relative to net national income for various countries as of 1995, the year the interest conversion began for most countries (see Figure 1). The graph shows that while most countries' consumption has stayed below net national income, Greece and Portugal were able to increase their consumption levels above net national income with a delay of three years after joining the Eurosystem (Portugal 1999, Greece 2001) and have been able to keep consumption above the national income level ever since. This remained true even after Lehman when both countries were practically shut off from the capital market and public credit from domestic printing presses and rescue funds replaced the stalling private credit. Even in 2016 Greece was still about 8% above the level it would have been able to finance itself. This gives some impression of the extent to which international aid mitigated the market-imposed austerity.

Another frequently expressed view is that the foreign aid Greece received was used primarily to redeem foreign debt and hence rescue European creditor banks (Varoufakis, 2017, p. 23-29). The fallacy of this argument is not only implied by Figure 9, but also more precisely by Figure 10. The latter provides information about the absolute levels and the

composition of international aid for Greece compared to the Greek current account deficit accumulated from 1 January 2008 (the curve cutting the abscissa) and in comparison to the overall Greek net foreign debt position (negative net foreign asset position, upper curve).[24]

Figure 10: Foreign aid for Greece during the crisis



Source: Eurostat, database Economy and finance, Balance of Payments—International Transactions; European Commission, Economic and Financial Affairs, The EU as a Borrower; European Commission, EU Budget 2011, Financial Report; European Commission, The Economic Adjustment Programme for Greece: Fifth Review; European Financial Stability Facility, Lending Operations; IMF, Financial Activities; IMF, SDR Exchange Rate Archives by Month; IMF, Updated IMF Quota Data; European Stability Mechanism, Financial Assistance; European Stability Mechanism, ESM Factsheet; ECB, Open Market Operations; Bank of Greece, Research and Publications, Financial Statements, Monthly Balance Sheet.

Note: A country's net foreign debt is defined for the purposes of this article as the negative of the respective net foreign investment position. The figure shows the time paths of the stock of formal credit Greece received from public institutions, net of any repayments and booked at its face value. It does not include the explicit or implicit Greek debt relief at the expense of private and public creditors provided in the year 2012.

The height of the lower area is the Greek Target liability as reported in the Greek central bank's balance sheet, and that of the next area packed onto it is a similar credit and liability Greece was drawing from the Eurosystem by printing an above-normal amount of physical bank notes – money that often was carried in suitcases to neighboring countries to buy real estate and other assets. Obviously, in the first two years of the crisis, i.e. in the years 2008 and 2009, the money from extra electronic and physical money printing was roughly equivalent to the accumulated current account deficit of Greece. This, of course, does not say

[24] Cf. Sinn (2015).

anything about correlation or causality, but it is a relevant accounting statement, indicating that during these two years, Greece did not (yet) experience capital flight, but had to live on its printing press, because the inflow of private foreign credit stopped.

The height of the next area added to the two previous areas is the volume of outstanding Greek government bonds bought by other central banks under the SMP program, and the height of the upper area gives the sum of all fiscal rescue funds net of redemptions stemming from the various intergovernmental aid program, the EU and the IMF.

By December 2017 the overall sum of net credit that the Greek economy had received from public sources was 302 billion euros or 170% of Greece's 2017 GDP (178 billion euros). By way of comparison: the Marshall aid that Germany received in the post-war period as formally stated in the 1952 London Debt Conference was 5.2 % of Germany's 1952 GDP (Berger and Ritschl, 1995). Thus, Greece received about 33 times the Marshall aid granted to Germany in relative terms. Note, however, that Germany also received debt relief, as did Greece in 2012. The debt relief of Germany and Greece is not included in the figures discussed here.

What was this aid used for? To bail out foreign creditors and compensate for an outright flight of foreign capital, as is often contended, or to sustain Greek living standards? The curve showing the current account deficit accumulated since the beginning of the Lehman year 2008 gives a partial answer. By December 2017, the current account deficit accumulated over a decade was 130 billion euros or 43% of the overall stock of foreign public credit received.[25] Thus 43% of the public credit received served sustaining the Greek living standard, and 172 billion euros at most, or 57%, might have been used to redeem foreign debt and hence help foreign creditors.

But even this percentage seems too big, since the Greek net foreign debt (in the sense of a negative net foreign asset position, comprising all cross-border asset holdings and credit claims), was only 251 billion euros. How is it possible that Greek net foreign debt is 251 billion euros, while the entire net foreign credit the Greek economy received from public sources was 302 billion euros? The only explanation is that 51 billion euros of the 302 billion euros, or 17%, was used to finance *Greek* capital flight to other countries. Greek institutions and individuals obviously used this part of the public rescue credit to finance their own foreign net investments. This information fits to the newspaper stories that Greek investors bought substantial assets in the London and Berlin real estate markets, for example. As a

[25] Eurostat. *Current Account Balance, Quarterly Data*, 2018, retrieved from: http://ec.europa.eu/eurostat/web/macroeconomic-imbalances-procedure/indicators/main-tables.

result, only the difference between the net foreign debt and the accumulated current account deficit, 121 billion euros (251 billion euros – 130 billion euros), i.e. 40% of the overall public credit can have been used to redeem foreign debt and rescue foreign creditors. This is a sizeable share indeed, but certainly does not represent "most" of the funds that Greece received.

To summarize, over the entire decade from 2008 to 2017, around 43% of the credit given to Greece was used to finance the Greek current account deficit, and 17% was used to finance the capital flight by Greek investors. The remaining 40% was used to redeem foreign debt and thus bail out foreign creditors.

8. Quantitative Easing

For the time being, the last step in the ECB's fiscal rescue operations has been its Quantitative Easing (QE) program. This program was agreed in January 2015 and implied that, by the end of 2017, central banks had bought 2,337 billion euros worth of assets in the markets.[26] The purchases increased the monetary base by nearly 2 trillion euros, from 1,193 billion euros at the end of 2014, shortly before the beginning of the program, to 3,139 billion euros by the end of 2017.[27]

The largest share of the purchases were government bonds, comprising around 1.8 trillion euros of the 2.3 trillion euros, and enabling governments to issue correspondingly more bonds without deteriorating the interest conditions that the market would require. According to an opinion expressed by the German Constitutional Court in its order for reference submitted to the European Court of Justice in August 2017, these purchases helped governments finance their expenditure in a similar way as direct purchases of government bonds by the ECB would have done and are therefore illegal, violating Article 123 TFEU.[28]

The purchases, which were continued beyond the end of 2017, were carried out by the national central banks. Each of them bought the respective domestic government bonds in proportion to country size (ECB capital key). As with ELA or ANFA, each national central

[26] European Central Bank, *History of Cumulative Purchase Breakdowns Under the APP*, 2018, retrieved from: https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html#pspp. The monetary base is defined as currency (banknotes and coins) in circulation plus the minimum reserves credit institutions are required to hold with the Eurosystem and any excess reserves they may voluntarily hold in the Eurosystem's deposit facility, all of which are liabilities on the Eurosystem's balance sheet.

[27] European Central Bank, *Statistical Data Warehouse, Base Money, Euro Area*, 2018, retrieved from: https://sdw.ecb.europa.eu.

[28] BVerfG. *Beschluss des Zweiten Senats vom 18. Juli 2017. 2 BvR 859/15 - Rn. (1-137),* 18 July 2017, retrieved from: http://www.bverfg.de/e/rs20170718_2bvr085915.html; German Constitutional Court, *Proceedings on the European Central Bank's Expanded Asset Purchase Programme are Stayed - Referral to the Court of Justice of the European Union,* Press Release No. 70/2017, 15 August 2017, retrieved from: http://www.bundesverfassungsgericht.de/SharedDocs/Pressemitteilungen/EN/2017/bvg17-070.html.

bank bore the investment risk in the sense that it collected the actual interest on the government bond, while it was paying interest according to the ECB's main refinancing rate into the common interest pool, which was then redistributed according to country size among the national central banks and their owners, normally the nation states.[29] Any interest earned above the main refinancing rate would belong the the national central bank, and likewise any shortfall would have to be borne by this bank.

The program was symmetrically designed and aimed at reducing long-term interest rates for governmental and private bonds.[30] However, in the end, it was not symmetrical. Instead it rather turned out to be a big asset swap program, exchanging parts of the securitized government debt of the GIPSIC countries for Target liabilities with the Eurosystem, and indirectly with the Bundesbank and a few other national central banks.

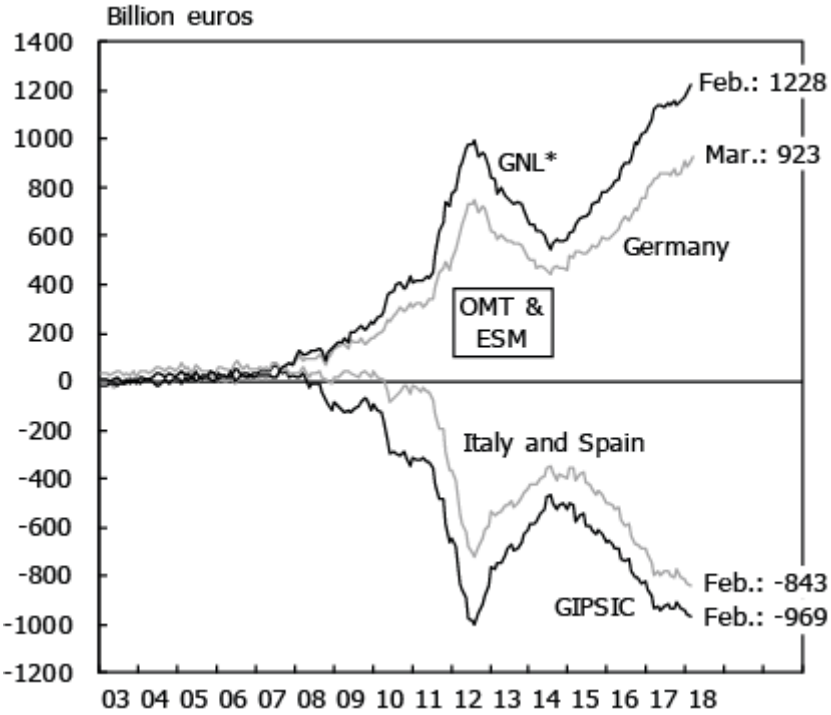
The reason for the non-symmetrical implications of QE, despite its seemingly symmetric construction, is that substantial fractions of the bonds of the GIPSIC countries were located abroad because these countries had financed the huge current account deficits that developed in the pre-Lehman euro bubble by selling assets, including government bonds, to the rest of the world. Calling these bonds back home meant that net-payment orders to the rest of the world arose, which increased the respective Target liabilities (Sinn, 2016, p. 260-268). QE can therefore be seen as a process of retroactively financing prior current account balances with overdraft credit from the Eurosystem.

The curves in the lower part of Figure 11, which depict the joint Target balances of the GIPSIC countries in toto, as well as those of Italy and Spain, show this development. Before 2007, the balances were roughly zero, as current account deficits were financed with private capital imports. After the outbreak of the financial crisis, private capital shied away from the GIPSIC countries and the compensation came from national electronic printing presses in the sense discussed above, financing the redemption of maturing private debt, as well as current account deficits, and to some extent even capital flight by domestic residents, who borrowed at home to buy foreign assets, as was demonstrated above for the case of Greece. The peak of this development was reached in summer 2012, by which point the 1,005 billion euros of Target debt already shown in Figure 8 was accumulated.

[29] In Greece and Italy, national central banks have private owners.

[30] "APP will strengthen confidence and support inflation expectations, having a direct impact on real interest rates and thus counteracting an unwarranted tightening of financial conditions. Furthermore, the ECB's interventions will reduce yields on government bonds, which will set in motion a more conventional chain of propagation channels that will support the economic recovery" (European Central Bank, 2015, p. 17)

Figure 11: The Target balances



* Germany, the Netherlands and Luxembourg.

Source: European Central Bank, Statistics, ECB/Eurosystem Policy and Exchange Rates, Target Balances of Participating NCBs. For data before 2008 see: Deutsche Bundesbank, Database, Time series BBK01.EU8148B; De Nederlandsche Bank, Statistics, Financial Institutions, Domestic MFI-statistics (monetary), Balance Sheet of the Nederlandsche Bank; Banco de España, Boletín Estadístico, Balance Sheet of the Banco de España; Banca d'Italia, Statistical Database, Bank of Italy Balance Sheet Aggregates; International Monetary Fund, International Financial Statistics, Net Claims on Eurosystem (IFS code xxx12e0szkm), Currency Issued (IFS code xxx14a00zkm), and Currency put into Circulation (IFS code xxx14m00zkm).

Then came the OMT program, the free-of-charge CDS-like insurance provided by the ECB that lured capital back to the GIPSIC countries, caused payment orders to these countries and hence reduced the Target balances again. This process came to an end in July 2014 when the discussion about the forthcoming QE program started and GIPSIC banks began to buy domestic government bonds abroad in order to subsequently resell them to their local central banks after the launch of the QE program.

From March 2015 when the program did start, this effect was reinforced as national central banks began to actually buy back the government bonds. In February 2018, the overall

Target liability of the GIPSIC countries amounted to 969 billion euros, of which 843 billion euros were attributable to Spain (399 billion euros) and Italy (444 billion euros) alone.[31]

Three Target-generating channels through which the repurchase actions took place can be distinguished.

1. The national central bank bought the bonds from their domestic banks, which themselves bought them in other countries, carrying out international payment orders for that purpose, forcing other central banks to credit the payments. The respective credit claims and liabilities were booked as Target balances.

2. The national central bank bought the bonds from foreign investors inside the Eurozone. For that purpose this central bank gave a direct payment order to the central bank of the country where the respective investors resided. Let us take the Bundesbank as an example. The Bundesbank created and issued the money necessary to make the payments to the selling investors, giving the former central bank a credit by doing so. As it issued money without receiving a claim on German commercial banks, it received a Target claim on the Eurosystem instead, which itself received a claim on the national central bank making the payment order. This was probably the standard case.

3. The national central bank bought the bonds from foreign investors outside the Eurozone. In this case it asked the ECB itself to make the payment order, which led to a Target-liability with regard to the ECB. However, the foreign sellers typically did not keep the euros they received, but reinvested them in the Eurozone, most often in Germany, forcing the Bundesbank to credit the payment to the ECB, and indirectly to the central bank that repurchased the government bonds from the foreign investors. Again, the claims and liabilities were booked as Target balances.

Most of the reinvestment did indeed take place in Germany, but some went to the Netherlands and Luxembourg. The newest data published at the time of writing show a Target claim of the Bundesbank of 923 billion euros by the end of March. By the end of February when all data were available, the German Target balance was 914 billion euros, the Dutch balance 123 billion euros and Luxembourg's balance was 191 billion euros, bringing the total of all three countries to 1,228 billion euros.[32]

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[31] European Central Bank, *Statistical Data Warehouse, TARGET Balances of Participating NCBs*, 2018, retrieved from: http://sdw.ecb.europa.eu.

[32] European Central Bank, *Statistical Data Warehouse, TARGET Balances of Participating NCBs*, 2018, retrieved from https://sdw.ecb.europa.eu; Deutsche Bundesbank, *Zeitreihe BBFI1.M.N.DE.4F.S121.S1.LE.A.FA.O.F2___T2.S._T.N.N: Mtl. Auslandsposition der Bundesbank - Aktiva - Übrige Kapitalanlagen - Bargeld und Einlagen - Nettoposition aus TARGET*, 2018, retrieved from: https://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen.

In other words, QE was like a big asset swap helping the GIPSIC countries to effectively get rid of some of their securitized foreign debt. Prima facie, it might have been suspected that central banks bought back government bonds from domestic banks and replaced it with base money, which represented a claim on themselves. However, the sellers included foreign investors and they as well as the selling domestic banks typically used this opportunity to reshuffle their portfolios and buy assets from other countries instead, thus distributing the money they received more evenly among wealth owners in other euro countries.

There was a debate on how to interpret the new Target balances triggered by the QE program. While Westermann (2016, 2017) and the Dutch Central Bank (De Nederlandsche Bank, 2016) argued that the concentration of liquidity generated by QE in just three countries was a sign of a fragmented capital market if not capital flight, the president of the ECB denied this interpretation fiercely, maintaining that it was a natural implication of the attempt to "redeposit" the new liquidity (Draghi 2016, European Central Bank 2017). However, if he is right with this interpretation and the Target balances do indeed result from a foreseen technical effect, the new Target balances are particularly worrisome, as the asset swap they indicate constitutes an extreme act of fiscal policy that goes far beyond the ECB's mandate, because it replaces a securitized state debt in the hands of private creditors with a mere book debt of a country's central bank with other central banks of the Eurosystem.

This replacement is a big advantage for the debtor countries as, unlike government debt, the Target liability can never be called due by the creditors and carries a rate of interest that the debtors co-determine. The Council's majority did indeed set this rate at close to zero in 2014 and kept it there, even although the European economy has recently faced a strong Keynesian boom.

Moreover, saying that the debtors co-determine the rate at which they can borrow is an understatement. In 2017, 63% of the votes in the ECB Council were held by countries with a negative net foreign investment position.[33] Any public choice model applied to the trade-off between national interest and true monetary goals would suggest that this fact will have repercussions for the kind of policies chosen by the ECB Council.

Another advantage for the indebted countries of the Eurozone is that the asset swap carried out by the ECB has replaced private creditors that tend to become intrusive in the case

[33] Austria, Belgium, Finland, Germany, Luxembourg, Malta and the Netherlands had a positive net international investment position by the end of 2017. Cyprus, Estonia, France, Greece, Ireland, Italy, Latvia, Lithuania Portugal, Slovakia, Slovenia and Spain had a negative net international investment position by the end of 2017 (Eurostat, *Net International Investment Position, Quarterly Data, % of GDP*, 2018, retrieved from: http://ec.europa.eu/eurostat/.)

of crisis with the ECB and ultimately a small number of other central banks that can be expected to be far more conciliatory and malleable if necessary.

From the point of view of the Target creditor countries, on the other hand, the QE swap is much less favorable. The Bundesbank, which at the time of writing has a Target claim of 923 billion euros, cannot call this claim due and can only collect and distribute to the German state an interest equal to the ECB's main refinancing rate, which is currently zero. And as Germany only has a tiny minority vote in the ECB Council – the same as that of countries like Malta or Cyprus whose population is 1/179 or 1/97 compared to the German population – it is unable to significantly influence the interest decisions.

The Target balances are integrated in international payment accounting systems, and they enter a country's positive and negative net foreign asset positions in the statistics of Eurostat, OECD and the IMF. The 923 billion euro Target claims of the Bundesbank constituted 48% of the entire net foreign asset position of the Federal Republic of Germany by the end of 2017, which, apart from write-off losses, is the sum of all past current account surpluses Germany has been able to realize. Thus QE implicitly converts a substantial fraction of Germany's past current account surpluses into mere Target claims, forcing the Bundesbank to retroactively finance the current account deficits of other countries with freshly printed money, i.e. claims against itself.

Those who argue that a current account surplus is a benefit for a country should re-examine their opinion in the context of the ECB's QE policy, and in view of the fact that any private investor would have to write-off a claim that he can never call due, that currently carries a rate of interest equal to zero and that may be carrying a positive rate in some distant future at debtors' discretion.

9. Settling the Target Balances

Arguably, the international public credit measured by Target balances could be subjected to settlement. Such settlement is normal between any private banks mutually carrying out payment orders, and it is also essential for the US payment system. The Interdistrict Settlement Accounts between the 12 district central banks existing in the USA, for example, are settled each April by transferring the ownership of assets bought through open market operations (the SOMA portfolio) (Sinn, 2012b; European Economic Advisory Group, 2012; Sinn and Wollmershäuser, 2012). Until 1975, the USA even had annual gold settlement between the district central banks.

Gold settlement was also common in the fixed-exchange rate Bretton Woods System that lasted until 1973. That system fell apart after France required the dollars it had accumulated to actually be settled with gold. Germany, in turn, had accumulated nearly 4,000 tons of gold by 1968, among other things because it had the right to have the foreign reserves accumulated, primarily French Franc and British Pounds, being converted to gold or dollars at a politically determined parity (Bernholz, 1998; Furth, 1955; Sinn, 2014, p. 325).[34] As the market price of gold was below that parity, the central banks of France and Britain decided to settle the Target like balances that arose in the Bretton Woods System with gold. If today's Target balances were settled with gold, the Bundesbank would receive 26,684 tons of gold for its Target claim by the end of March 2018 at the then prevailing gold price.[35]

Settlement is necessary in order to limit the moral hazard effect resulting from non-settlement and unlimited Target balances. The settlement obligation gives a country's central bank an incentive to issue local credit parsimoniously by making only limited use of ELA, ANFA and generous collateral policies and allow local interest rates to increase, which would lure in private capital from abroad . Even the USA, for example, used to have internal interest spreads between the districts of the Federal Reserve System that reflected both risk spreads and the unwillingness of district central banks to let ISA balances grow which they then would have to settle with gold (in the years up to 1975). While no single transaction would ever be blocked, rising local interest rates would result in more private capital flowing in and, if not, domestic agents, governments, investors and consumers alike, would have less incentive to borrow, which would reduce the import of goods, and hence the need to finance it with money from the local printing press.

It is true that the advantage of unlimited balances is that a central bank has unlimited abilities to withstand speculative attacks and compensate for the capital flight with cheap public credit. However, the downside is that the national central bank also faces the temptation to use the cheap public credit, which is available without any risk spreads, to undercut the market and expel private credit that it finds too expensive. While this would limit any acute crisis, it breeds the risk of bigger crises in the future, as the country's international

[34] Deutsche Bundesbank, *Statistiken, Zeitreihe BBK01.EU8201: Auslandsposition der Bundesbank -Bestand- / Gold,* 2018, retrieved from: https://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html;jsessionid=00001hSSnuWdkMIWc0RpebpebXe:-1?startpageId=Startseite-DE&startpageAreaId=Marginalspalte&startpageLinkName=its_details_value_node+194&tsId=BBK01.EU8201.

[35] Gold Price: 1076.43 EUR per Troy Ounce (March 30, 2018); Target balance of Germany by March 31, 2018: 923,466,081,285.58 EUR ; 1 Troy Ounce = 31.1034768 g = 0.0000311034768 tons. Target claim in tons of gold = (923,466,081,285.58 EUR) / (1076.43 EUR / Troy Ounce) * (0.0000311034768 tons / Troy Ounce) = 26,683.58 tons.

indebtedness increases, and public institutions enter debtor-creditor relationships that tend to result in distrust and anger.

The Soviet transfer ruble system exemplifies the risk of a system without settlement of balances between the republics. As all Soviet republics had access to local money creation, most of the national central banks over-used the local printing presses to buy goods from Russia without ever paying with assets or other goods, thus accumulating more and more Target-like external debt (Sinn 2014, p. 243). After the end of the Soviet system this was one of the reasons why Russia eventually limited the overdraft facilities in the ruble payment system, resulting in a sudden break-down of the system in 1993, given that a private capital market that could have provided replacement capital was non-existent.

10. Two Models for Europe

There are two models for Europe. One is the model of a transfer union, while the other is the Maastricht model. The transfer union is based on debt mutualization, risk sharing, redistribution and the monetization of public debt. The Maastricht model in turn is based on the principles of self-liability, no-bail-out and non-monetization of public debt. While it started out with the Maastricht model, Europe has shifted far closer to a transfer union.

The chain of events beginning with the implicit debt mutualization reducing the interest spreads after the 1995 summit in Madrid, continuing with the self-service with the printing press after Lehman and moving on through the rest of the seven steps described in Section 2, up to the QE program, will ultimately lead to a fully-fledged transfer union because it implies reduced interest spreads and a strong incentive to over-borrow. Over-borrowing may lead to unsustainable debt levels, which will force public lenders from other countries standing at the end of a process of debt roll-overs to agree to substantial debt relief and replace at least parts of the credit flow with intergovernmental transfers.

The community of states may try to prevent the over-borrowing from taking place by imposing legal debt constraints as in the Stability and Growth Pact or the enhanced fiscal compact of 2012 as described in Section 3, but the borrowing incentive resulting from reduced interest spreads has to date proven far stronger than the legal constraints, and there is little hope that this will ever change.

There are two potential ways in which this chain of events may end. One outcome is a chronical Dutch disease of the kind eastern Germany, the Italian Mezzogiorno or the Spanish Estremadura are suffering, which forces the northern Eurozone to permanently transfer some of their resources. This outcome will please no one and will frustrate jobless recipients and

overstressed donors alike, creating tensions of the Catalonian type. Arguably, the major driver of Catalonian tensions is the Catalonians' unhappiness with the massive, but obscure flows of public resources to other parts of Spain, depriving the province of a substantial part of its superior productivity.

The other outcome is a repetition of US history.[36] Alexander Hamilton, the nation's first finance minister, mutualized the debt of the single states in 1791, making it federal debt to be serviced jointly by all. This decision plus a second round of debt mutualization in 1813 during the second war against Britain created the expectation among states that there would be more mutualization in the future. At reduced interest spreads they borrowed more to invest in infrastructure like roads, bridges, canals and public buildings. This created a strong Keynesian boom, which turned into a bubble that burst in the 1830ies. From 1835 to 1842, nine out of 29 states and territories went formally bankrupt and the others were sufficiently handicapped to be unable to assume the debt. Nothing but hassle and strive had resulted from debt mutualization. James (2012) argued that, while Hamilton thought debt mutualization was "cement" for the new state, it in fact turned out to be an "explosive". James drew a direct line from 1842 to 1861 when the War of Secession started, arguing that the unresolved debt problem had contributed to the tensions that led to the War of Session in addition to the rivalry for cheap labor, which was the main driver.

Thus, while mutualization undoubtedly is able to fence off speculative attacks and generate short-term stability of a monetary union, it may in the long run lead to rather problematic implications ranging from the Dutch Disease to an outright crash with unprecedented dimensions and implications.

Therefore, it might be wise for Europe to reconsider the original Maastricht model, which basically is the current US model, as emerged after the US debt crisis and partly after the War of Secession, resting on the ban of a monetization of state debt (Article 123 AEUV) and the no-bail out clause (Article 125 AEUV). Unlike the ECB, the US Fed does not monetize the debt of the union states, and the entire federation is built on the no-bail out principle. Indeed, the Fed does not buy any government bonds of member states and the federal government does not take responsibility for the debt of member states should they over-borrow and face bankruptcy. California, Minnesota and Illinois went through this bitter experience in the last few years, and the city (and state) of New York experienced it in the

[36] See Ratchford (1941) and Wright (2008) as well as the underlying philosophy as revealed by Hamilton in Hamilton and Madison (1788).

early 1970ies when New York City had to pledge some of its future tax revenue to creditor banks to overcome the financial crisis that Mayor Lindsey's social programs had caused.

This strictness has contributed to the overall financial solidity of the US federal system during the last 150 years, because whenever a state tends to over-borrow, the creditors, afraid of the bankruptcy risk, charge higher interest rates, which then reduces the appetite for credit. The fear of the creditors is a sort of automatic overrun brake preventing economic booms from gaining too much "speed" and turning into inflationary bubbles which would undermine local competitiveness as in Europe. In addition, US states do have various forms of idiosyncratic legal debt constraints that help them to respect the detrimental consequences of excessive borrowing.

Admittedly, at the federal level, the USA also shows an inclination to borrow, but interestingly, this coincides with the Fed buying federal government bonds. Moreover, the federation has common taxes and implicit transfers through various forms of federal expenses like defense and other nationwide tasks that do have redistributive implications, given that a full political union has been formed.

Europe will have to think about which model to adopt, but whatever its decision may be, the rules of democracy require that it be taken by the European electorate and its parliaments, rather than inevitably resulting from prior mutualization decisions made by the ECB Council, which is merely a technocratic body that is supposed to carry out monetary, rather than fiscal policy. The continent may wish to take note of the lessons that the USA had to learn so painfully in the first few decades of its history. To do so, it would have to avoid being taken hostage by zombie banks, which live on the gamble of resurrection allowing them to asymmetrically participate in the gains and losses from risky investment decisions, because ultimately the losses will be borne and mutualized by taxpayers. While zombie banks need a policy of maximizing short-term financial stability by way of risk mutualization, long-term stability, including an efficient allocation of resources and sustainable growth, calls for forms of protection against over-borrowing like the market-based overrun brake mentioned above. Temporary exit options, bankruptcy rules for states and a settlement system for Target balances could be considered as the features of a system that may eventually evolve into the United States of Europe.

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