THE MONETARY EXIT: WHAT ECB ACTION CANNOT DO FOR THE EUROZONE

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Abstract

Within the broader debate of transforming central banks and lacking political hegemony in the Eurozone, this thesis examines the shift in responsibilities from European governments towards the European Central Bank with regard to the economic and political crisis of the monetary union since 2008. This research paper scrutinises the political foundations, chances and risks of unconventional monetary crisis responses, especially **quantitative easing** and the prospective concept of **helicopter money**. In a comparative policy analysis driven by a cross-theoretical approach, the effectiveness of past, present and potential central bank measures triggered by the global financial crisis of 2008 are assessed in four of the most pressing issue areas in the Eurozone crisis: economic **growth**, excessive **sovereign debt**, **macroeconomic imbalances** and the connected democratic crisis of **responsible and responsive governments**. Apparently, quantitative easing is capable of boosting growth and helicopter money drops could additionally address actual sovereign debt levels, while either policy cannot do away with macroeconomic imbalances. Regarding flaws in the European party democracy system, new central banking is one part of the solution, but creates yet another legitimacy problem with its technocratic nature. Thus, the research findings hint at further-reaching political integration as a necessity to build on the contribution made so far by the European Central Bank.

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Table of contents

1. Introduction

1.1 The Eurozone in Crisis and the ECB

Since 2008, the Eurozone members - and with it, the European project - stand confronted with a multiple-symptom crisis of growth, sovereign debt, macroeconomic imbalances and the democratic dilemma of governments under simultaneous pressure from voters and international lenders. So far, there has been considerable lack of ability and willingness to solve these circumstances with leadership from an economic hegemon (Paterson 2011, Bulmer 2013), further European integration (De Grauwe 2006, 2009, 2011) or pronounced stimulating demand-side policies (Blyth 2013, Brancaccio 2012, Creutzig et al. 2014). In terms of the Eurozone's overall stability, Germany has been standing in the way of more courageous responses for internal political constraints and its economic dependence on foreign trade (Young and Semmler 2011, Bibow 2013), the Bundesbank legacy (Bulmer 2014) and stagnating European dedication (Paterson 2011). Instead of propositions for sustainable bailout programmes and a European transfer union, austerity packages have become the least common denominator within the Eurozone and a mandated standard approach, cementing precarious economic conditions in crisis-struck peripheral countries of the monetary union (Karanikolos et al. 2013, Armingeon and Baccaro 2012). In a debate on how to best restore economic and political sanity in an enlarged currency area and in a new phase of capitalism, vetoes and blocking from EU and national government politicians have been on the daily agenda. One outcome of these tensions within the

Eurozone has been the European Central Bank (ECB) emerging with its unconventional monetary actions, moving centre-stage in a crisis that has not been solved in the political arena of the EU and between governments. As a result, a peculiar combination of tight fiscal and loose monetary policies emerged, which has since then dominated the crisis discourse (e.g. Bernanke 2012, De Grauwe 2014). Especially in Germany itself, the reactions to policies designed by unelected technocrats in Frankfurt are mixed, and key questions arise as the ECB's toolbox to manage the Euro's troubles are being extended:

Can renewed prosperity in the Eurozone derive from its central bank's actions? What could and can the European Central Bank contribute to tackle the different aspects of the economic crisis in core and peripheral areas of the Eurozone? What have been the limitations of central bankers' actions concerning growth, public debt, macroeconomic imbalances - and the emerging democratic dilemma? In other words, the main question in this research effort is about the efficacy of central bank action in the fourfold crisis. What can measures adopted by the ECB do and what can they not do for the prosperity of the Eurozone? On the sidelines, the state of health of peripheral democracies under the pressure from external institutions is tackled, as is the lack of democracy within the independent central bank itself. What is the ECB's role in cutting national governments' manoeuvring space to satisfy their constituency - and what happens when power lies in the hands of a body without any voter legitimation whatsoever?

This thesis sets out to explore the changing patterns of European crisis resolution by highlighting the emerging power of central banks. The ECB has assumed a leading role in combatting adverse effects of the international financial crisis ever since its onset by introducing long-tested measures, such as decreased base interest rates and more pronounced forward guidance by promising favourable credit conditions for an extended period of time. Additional programs including select government bond purchases helped some of the most affected countries back on their feet (Krishnamurthy et al. 2013). After years of enduring economic downturn, however, these activities have been complemented by more aggressive policies.

Since 2015, the ECB's toolkit has been expanded to long-term quantitative easing, the systematic buy-up of treasury bonds, providing over one trillion euros in additional market liquidity until 2016 (Claeys et al. 2015). This initiative aims at imitating what has worked elsewhere: in the US, quantitative easing jumpstarted the domestic economy after its breakdown between 2008 and 2014, as key indicators show (Kapetanios et al. 2012). However, the European case has proven complex for a number of reasons: structurally, macroeconomic imbalances in a less than optimal currency area have translated into different needs in the respective economies (Gros 2012, Wood 2014). Politically, the official targets of the ECB were different from the FED's, not encompassing policies beyond price stability (Fawley and Neely 2013). What is more, a common currency without a common treasury or supranational economic governance made it harder to negotiate uniform action over years.

Another set of measures lately debated in academic literature is the notion of helicopter money drops, as first articulated and theorised by Milton Friedman in the 1960s (1969: 4) - and gaining momentum in current debates. In this hypothetical policy approach, the monetary base is expanded, similarly to quantitative easing. However, the major difference would be that the central bank would not subscribe to government-issued treasury bonds, but provide liquidity all across a society without redemption (e.g. by issuing consumption cheques or granting tax breaks to individuals) or finance public works without issuing sovereign bonds. This way, the level of sovereign debt would not increase and growth impulses could be sent to the core of the economy, but since there is no empirical evidence, the concrete effects on growth and inflation remain unknown.

1.2 Past Research and Contribution

This paper collects evidence about the nature and efficacy of each of the distinct stages of central bank intervention in the European case and identifies limitations of the respective policy packages. Existing research on the topic of "old" and "new" central banking has focussed on several of the discussed models and policies with differing geographical and time scopes. While literature on traditional monetary policies is abundant and studies on quantitative easing are available for a number of instances in recent history by now, helicopter money drops have only been picked up again lately, most prominently by Ben Bernanke (2002) and Willem Buiter (2014).

With regard to the manifold European crisis of the political and economic sphere, research efforts have been carried out to better understand the various instances that have contributed to the unique situation of the Eurozone in recent years. What is often simply referred to as the broader "Eurozone crisis", is here disassembled into four interrelated entities established in academic literature: First and foremost, lack of stable economic growth has been a core issue:

other than the United States, Eurozone economies have not been able to pick up significantly after the onset of the global financial crisis 2008, when the general world economy has been recovering. The second and certainly most salient debate has focussed on excessive levels of sovereign debt across the continent in the wake of the crisis. Reinforced by mislead austerity policies, they had originally been attributed to past spending, spillovers from the US subprime crisis and the cost of resulting bank bailouts (e.g. Shiller 2012). Directly connected, macroeconomic imbalances within the European common currency union have been the third academic discourse in recent years. Several authors have identified general flaws in how the Eurozone is constructed as a currency area in terms of competitiveness and external trade. The fourth and last concept of this crisis reintroduced here touches a more political sphere, namely the democratic lapse between responsible and responsive governance. Peter Mair (2011) forged the idea that in certain parts of the European periphery, democratic leaders are caught in a trap of having to obey the monetary and structural reform demands from international lenders (acting "responsibly"), which are often detrimental to the needs of the domestic constituency, to whom governments cannot give back adequately (acting "responsively").

Both these four areas of the Eurozone crisis, and the different degrees of central bank intervention mentioned earlier, have been individually addressed by institutional and academic studies thus can rely on established concepts, helping to better understand why the Eurozone is limping in economic and political terms. The main goal of the present paper, however, is to present a matrix that links these two groups of concepts, building a bridge between the emergence and the policies of the European Central Bank with the four elements of the crisis. Specifically, the thesis analyses the impact of unconventional central bank policies (quantitative easing and helicopter money drops) on each of the core issues of the Eurozone crisis (economic growth, sovereign debt, macroeconomic imbalances and the democratic dilemma in the periphery) in a structured approach.

The comparative policy analysis in this thesis provides an overview of the transition towards more powerful central banks in general and their policies designed to get macroeconomies going after the major downturn in the Eurozone. Analysis of economic and political literature content gives IPE readers an overview about what central banking can do for Europe's economy when governments fail to deliver, but at the same time, shows the frontiers of ECB action in each of the areas of distress, hinting back at elected leaders and their responsibility to solidify the Eurozone as a whole with further-reaching political and economic integration.

The structure of the research paper will be the following: while this introductory part (Ch 1) sets the stage for this thesis and the significance of its subject, the main body consists of three subsections (Ch 2-4). Chapter two is dedicated to the four concepts used to define the multiple symptoms of the Eurozone crisis: economic growth, sovereign debt, macroeconomic imbalances and the democratic dilemma in the periphery. Subsequently, the third chapter will present the case of central banking in this crisis: after building the foundations on why central banking has assumed its new powerful role in the international political economy, this part introduces the ECB's past interventions, present measures and potential future tools for action by carrying together theory and evidence on traditional monetary actions, quantitative easing and helicopter money drops. Chapter four - the central contribution to the debate - then sets out to blend symptoms of the Eurozone crisis with respective ECB actions, answering questions such as:

Have unconventional monetary policies since 2008 sufficiently addressed sovereign debt problems? Does quantitative easing help growth in the Eurozone? Can it even out macroeconomic imbalances? Could helicopter money drops help to fill democratic gaps identified in the Eurozone's periphery? If so, are there backlashes to the ECB's success/failure in trying to solve parts of the crisis? In the concluding chapter of the thesis, key learnings from the foregoing study are wrapped up to make it clear what the ECB can - and cannot - do for the sake of the Eurozone's economic and political well-being and how government action would complement the central bank's efforts.

As the matrix developed throughout this thesis shows, the ECB has certainly held truth to its commitment to growth and providing relief to countries most affected by the general hike in sovereign debt levels. Nevertheless, there are drawbacks for each of the measures taken by the central bank: the democratic gap in some of the Eurozone's members can only be filled at the cost of yet another democratic flaw, and the problem of macroeconomic balances cannot be grabbed by its roots solely by monetary action.

1.3 Methodology

The thesis at hand mediates between some of the core issues of the greater European project and the respective policy responses developed in the realm of central banking, whereby I conduct a study of major central bank policies in the case of the manifold Eurozone crisis from 2008 onwards. In a comparative policy analysis, monetary options to tackle the crises of growth, sovereign debt, macroeconomic imbalances and European democracy are analysed along a time series and contrasted with the alternative academic claims, e.g. for more experimental monetary action or greater economic and political integration. The matrix of central bank action versus Eurozone crisis theories is backed by content analysis of secondary literature, the academic discourse and compiled datasets from independent parties.

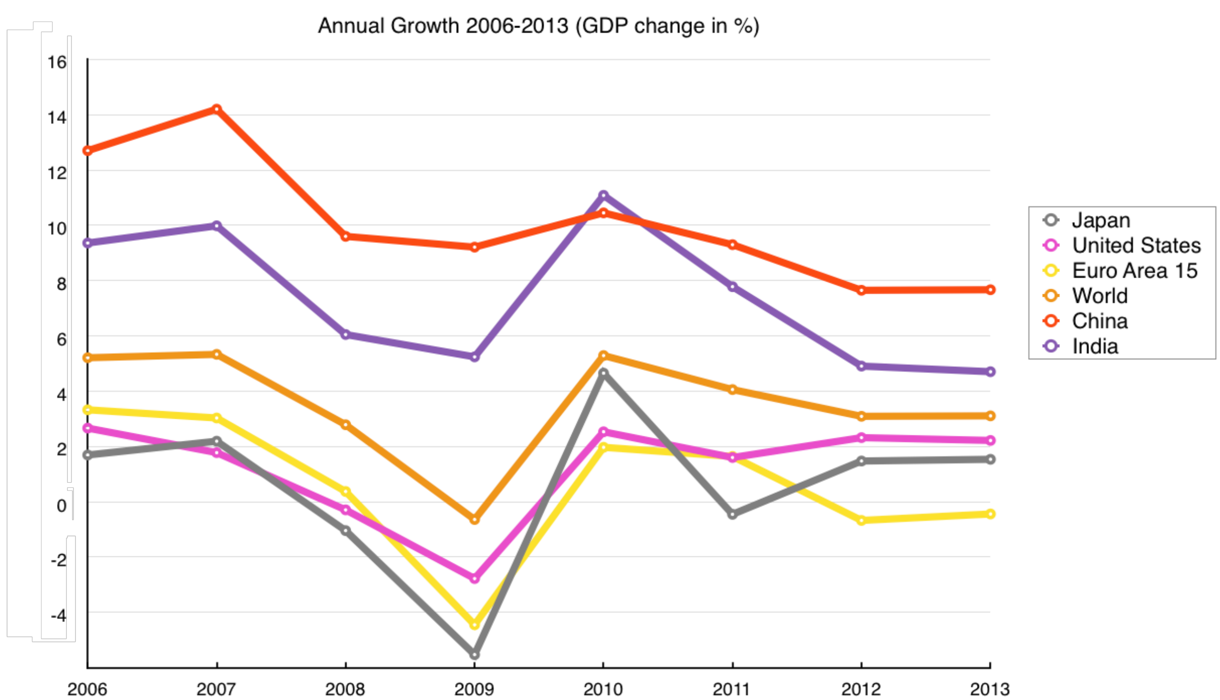
One key element in structuring the data obtained through above-mentioned techniques is to trace the political and economic processes from central bank action along causal chains to related outcomes in the specific sub-crises of the Eurozone. Evidently, the aim is to formulate the ways and extent of crisis mitigation by the European Central Bank's policies and interventions, blending them with what is known about the faceted economic downturn in the Eurozone. Key aspects to be looked upon here are economic growth, the level of sovereign debt, macroeconomic imbalances within the Eurozone and the democratic gap in some of the peripheral countries. Points of parity and points of difference between the respective policies pursued by the ECB are exposed in this way. Through in-depth analysis of arguments from the respective scholarly fields, the thesis lays out policy evaluations, making the unwieldy field of central bank transformation and the crisis more accessible, thus equipping decision-makers with a contemplation of multiple concepts and challenges in one piece. The call for further research is evident: the quantification of the main causal paths developed in this thesis, the application on certain countries and regions of the Eurozone and the specific embedding of the European Central Bank within the democratic development in Europe are potential fields of further exploration, to which this thesis may provide a useful starting point.

2. Symptoms of the Eurozone Crisis

This chapter briefly presents the four fundamental issues identified in the larger continental crisis and sets the stage for central bank action in each respective field by providing essential working definitions: what makes each of the discussed aspects of the crisis worthwhile looking at and how do they contribute to the overall debate. Lack of growth, sovereign debt, macroeconomic imbalances and democratic discrepancies within the Eurozone are obviously interconnected in a chain reaction, with one leading to another and often mutually adding heat to the various vicious circles present in the area. However, as will be shown later, these key subcategories of the Eurozone crisis differ in their receptiveness for ECB action, thus merit distinct analysis along the crisis years. In this descriptive section, each issue is analysed given the timeline of its appearance, the gravity for different areas of the Eurozone and key political measures taken so far.

2.1 Growth

As in any economic downturn of either cyclical or structural nature, concerns about economic growth lie at the core of macroeconomic planning. The financial crisis of 2008, originating in US subprime lending facilities, overexposure in unsustainable investment positions and derivative speculation, spilt over to Europe in a global wave of bank house collapses (Lane 2012: 55), a collective need for sectoral bail outs and dealing with the consequences. The long-term effect of the financial crisis on subsequent productivity is established at around 1.5 to 2.4% of yearly GDP growth (Furceri and Mourougane: 14), resulting in a considerable output gap over the years if no counter-measures are taken. In this sense, the Eurozone was not an exception, as Graph 1 tellingly shows: all of the ten biggest world economies suffered slumps in their economic growth rates in the years 2008 and 2009. Only four of them could avoid the overall recession of the world economy, namely South Korea, India, China and Australia. In what concerns the recovery period from then on, however, the Eurozone has been trapped in a phase of stagnation, in part taken over by comparable advanced economies such as the United Stated and Japan in 2010 and 2011 and taking the position as the lowest-performing of the top-10 macroeconomies in 2012 and 2013.

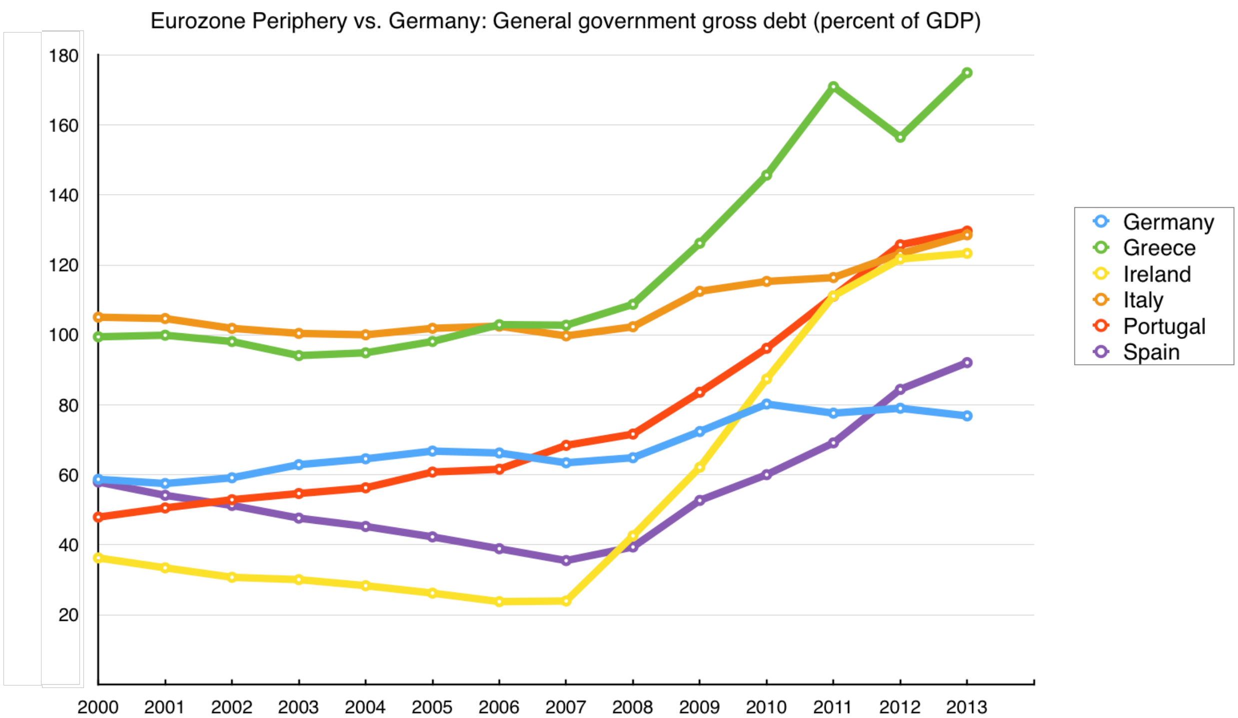


Graph 1: OECD World Economic Outlook, April 2015

2.2 Sovereign Debt

Probably the most salient issue in the Eurozone, the increasing levels of sovereign debt have caused major debates about crisis mitigation and prevention, the role of free markets and European integration. Since fiscal policies are determined on a national level and are only supervised and sanctioned by multilateral institutions, a major discrepancy has arisen: the Eurozone is a monetary union without common treasury activities and taxation concordance.

In the European periphery, the issue area of excessive sovereign debt levels gained significance in recent years for two main reasons: a few countries (especially Greece and Italy) already had high levels of public debt, which could not be kept under control for structural shortcomings, while others (e.g. Spain, Portugal, Ireland) came into the crisis with a significantly lower debt burden which dramatically increased after an investment, housing or banking boom and bust. As Lane describes the transition from a financial and banking crisis to a sovereign debt crisis, there were clear signs of spillover during 2008: dry interbank and cross-border financial markets (Lane 2012: 55), putting countries relying on short-term financing at a disadvantage, most notably Spain and Ireland (Honohan 2010). As Graph 2 shows, these effects seemed less of a trouble as long as the total level of debt remained manageable in above-mentioned countries, but led to a round of escalation with sharply increasing budget deficits from 2009 on. After Greece's reassessed financial position had made a rescue package inevitable to avoid a country's default in the monetary union, spreads on sovereign bond issuances diverged as trust from investors faded. Preventive bailout packages for the peripheral Eurozone from IMF, ECB and the core of the Eurozone followed, the common conditionality of fiscal tightening soon gained grip, which again had repercussions on growth perspectives. In other words: cutting back costs in the hope for reducing the deficit created an even greater recession that damaged parts of the economies in hurtful ways.



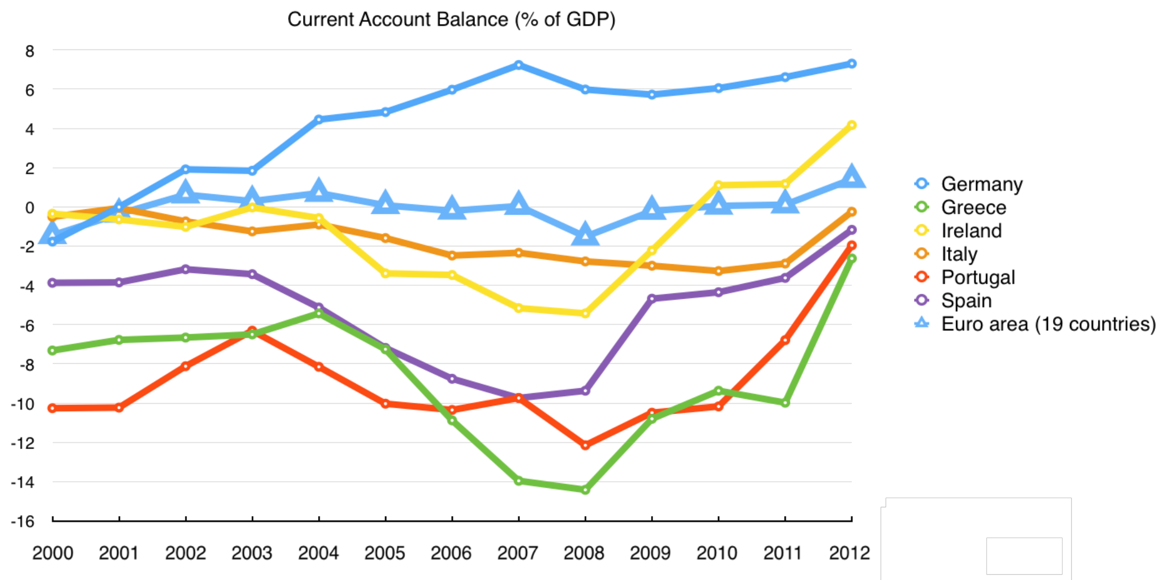
Graph 2: OECD World Economic Outlook, November 2014

2.3 Macroeconomic Imbalances

While the overall economic performance of the Eurozone showed a promising start of the new level of economic integration, it kept a notable downside inherent to the structural setup under the table: External devaluation is no longer a means to make export industries more competitive and reduce the burden of debt issued in the home currency. Thus, internal devaluation becomes the new adaptation pattern in times of crisis - by putting pressure on either public expenditures or private-sector wages, or increase productivity within the borders relative to the rest of the world and the monetary union. One factor here is central bank's changing role with the introduction of the Euro, the other being external trade and balance of payments of the respective countries.

First, one issue concerning internal devaluation is uniform ECB base interest rates for the Eurozone as a whole, which was a side effect when monetary policies, including instruments and decisions, were lifted to the European level. Treating equally what is by nature unequal, the monetary toolkit was applied to target a specified inflation rate (which correlates with unit labor costs as a general indicator of competitiveness). This, in turn, results in a cycle of macroeconomic divergence which looks as follows: Export-oriented core countries of the Eurozone like Germany faced ECB-set higher base interest rates than they were used to (Scharpf 2011: 12-13), which boosts their trade surpluses and provides excess liquidity. On the other hand, the Eurozone's weaker members were to cope with lower base (and real) interest rates set by the ECB. The harm done to the national output in countries the Eurozone periphery (GIIPS - Greece, Italy, Ireland, Portugal and Spain), as already mentioned, was covered up in the 2000s by an overall favourable economic climate, the immediate advantages of the currency union (like trade impulses or comparable consumer prices) and converging interest rates on sovereign debt (Arghyrou and Kontonikas 2012: 33).

The interrelated second episode is the accumulation of trade surpluses and deficits in the core and periphery of the Eurozone. As Graph 3 indicates, Germany had been running ahead of peripheral European countries in their current accounts, culminating in a surplus of almost eight percent in 2012 and only slightly hampered during the crisis years. Greece, Italy, Portugal and Spain (GIPS), on the contrary, have entered the 2000s and beginning of the Euro era with unfavourable balances of trade and payments, only to worsen throughout the boom years from



Graph 3: OECD World Economic Outlook, April 2015

2004 until 2007. In late 2013, the European Commission took action to scrutinise external trade imbalances, including Germany's surplus (Gros and Busse 2013). But while demand for products and services originating from competitive core countries with significantly relaxed unit labor is an issue, the investigation was mainly targeted at what happens with these surpluses: The boom in credits in GIIPS countries was heated up when German[1] excess liquidity was recycled by reinvesting it in the periphery. When the resulting housing and consumption bubbles burst in

[1] When referring to Germany in the debate of competitiveness and central bank policies, the greater entity of European core economies is equally addressed, to which Austria, the Netherlands, Finland, Belgium, Luxembourg and even France can be counted with gradual and often great accentuations. Within this group of countries, however, Germany is the ideal-typical and leading case of export-oriented nations, in opposition to struggling peripheral states.

2008, these peripheral countries were forced to rely on internal devaluation by severe austerity policies, which further hurt their competitive position as wages could not be restrained as fast as productivity was giving in, requiring even deeper cuts in public spending and private sector salaries (Armingeon and Baccaro 2012). What results is a vicious circle in the Eurozone's periphery that connects the major trends: as relatively uncompetitive countries lose ground in their respective export markets, their trade balances worsen, which negatively affects their financial prospects. Austerity - as the prescribed cure of the disease - made matters more problematic - instead of lifting these economies out of trouble.

2.4 European Democracy

The European organisations combatting the crisis encompass both national governments and international actors, today ironically abbreviated as TIFKAT (The 'Institutions' Formerly Known as Troika), consisting of the Euro member states, the European Central Bank and the IMF. Rescue and preventive action realised by these institutions included the European Financial Stability Facility (EFSF, temporary) and the European Exchange Mechanism (ESM, long-term), which are policy packages designed to provide unanimous solidarity measures but stay strictly limited in scope and access. Factual participants of these programmes have been Greece, Ireland, Portugal, Spain and Cyprus.

However, the countries introducing rescue packages have been subject to credit conditionality lines: once the periphery had to be bailed out, the respective national governments had to carry out unpopular liberal reform packages, which gave them no manoeuvring space to respond to internal demands articulated by their voters (Mair 2011: 2). The scholarly debate after Peter Mair's initial contribution has continued to use the concept of responsible versus responsive governance, showing the roots and implications of the democratic unviabilities, especially in the European periphery. On the one hand, sticking to austerity in order to regain grip on financial stability has been set out as the inevitable path by the Troika, accompanied by structural reforms for changing the domestic economies and state revenues in the longer term. On the other hand, respective governments are the ones in charge to carry out these measures dictated from the outside, thus are urged to act *responsibly*. This restricts governments in formulating policies to accommodate their constituencies, who are often critical of international action plans. The dilemma is complete: governments obeying international restrictions can no longer respond to their local voters, which disturbs the smooth functioning of any internal democratic process. Once voters are frustrated by the fact their vote has not made an impact, their feedback to politicians is volatile: they either go for a different choice in the following elections or withdraw from the polls altogether (Rose 2014: 255). The consequence may be one-term governments, as witnessed in Ireland, Greece and possibly in Spain. In Portugal, where all parties bought into the prescribed reforms after joining the EFSF, electoral participation has fallen, as it did in Italy and Greece (Teixeira et al. 2014: 12). In all of this, the ECB plays a nuanced role from the European Parliament, as the independent central bank has no firm democratic backbone and creates a technocratic sphere of interdependence (Rose 2014: 261). Thus, the sub-crisis of European democracy is not only one of core-periphery cleavage, but strongly determined by the growing asymmetries in democratic processes and the origin of economic resources (Laffan 2014: 285).

In the case of the Eurozone crisis, however, these resources are inherent to external creditor countries like Germany, which has shown little sign of leadership and rather decoupled its fate from the rest of the monetary union, also in remembrance of past global recessions (Bohle 2014: 303). The result, as Kriesi (2014: 368) points out, are the emergence of new populist or extremist forces in the party system (see Italy's 'Five Star Movement', Greece's 'Syriza' and 'Golden Dawn', or Spain's 'Podemos' and 'Ciudadanos') rejection of the party system altogether, of which both options seem undesirable.

To sum up, the time since the global financial crisis in 2008 has been characterised by stagnating growth, surging sovereign debt, macroeconomic imbalances and party democracy issues in the Eurozone is far from over at this point in time. The issues discussed so far have been developing both their own dynamics and interconnections, which makes them all the harder to be addressed by European decision makers. And while a number of governments, national and supranational institutions and organisations have provided their input, it is the next step of this thesis to focus on the measures taken by the comparatively young European Central Bank as an emerging actor in this fourfold crisis. In an analysis that follows the chronology since 2008, the central bank's actions will be analysed as they were introduced after the near-collapse of the financial system, singling out their coming about and effects on the real economy and dependent entities.

3. ECB Policies: Past, Present and Future?

3.1 The Financial Crisis and Political Reluctancy: Why the ECB Stepped In

The scope of responsibilities of global central banks has changed multiple times over the last couple of centuries, driven by political as well as purely economic factors. As Goodheart (2011) reminds us, the trajectory has taken central banks from pure providers of trade and price stability between nations to guardians of more general financial stability more recently. Also, the central bank has moved to step in when states are trapped in liquidity crises and, vice versa, aims at limiting unproductive public taxation in good times.

In the 2000s, the founding years of the European Central Bank, inflation-targeting by setting base interest rates accordingly has already become a policy near perfection. Nevertheless, the outbreak of the 2008 financial crisis showed that financial stability is more than just a stable price perspective (Goodheart 2014: 145). Providing additional liquidity within a given range of options is at the core of what the ECB has been implementing since 2008, and apparently, further-reaching regulatory and macro-prudential instruments are necessary to keep the economy running, which will be the focus of this third chapter. These measures have included a more proactive management of the ECB's balance sheet, translating into more aggressive buy-ups of sovereign debt, quantitative easing - and in the future, possible helicopter money drops.

Before, it is crucial to acknowledge three of the accelerating issues that made unorthodox central bank intervention an alternative in the Eurozone, thus helped the ECB to its current power position. Namely, tight fiscal regimes and Germany's reluctant economic hegemony are three main areas which scholars hold accountable for the swift rise of the central bank.

First, the level of sovereign debt and austerity regimes make central bank intervention all the more pressing. After the hikes in public indebtedness around the Eurozone, the risk is evident that future downturns become unaffordable for states, given the magnitude and thrust of new financial crises. Still, someone will have to reflate the economy at the end of the day - if it is not the private sector (for it seeks to de-risk its balance sheets), it will eventually have to be the sovereign, or its central bank. Basing his research on Herman Minsky's Financial Instability Hypothesis, McCulley (2009) clearly points out that Europeans cannot maintain austerity *and* monetary prudence thus abstain from unconventional policies such as large-scale quantitative easing policies since "there's no difference between Uncle Sam's balance sheet and the Fed's balance sheet. Economically speaking, they're one and the same." (McCulley 2009: 11) What he means is that when sovereigns are in no position to issue debt in order to move an economy, it can and will equally be the central bank, as it bears the same effectiveness while mitigating connected risks. To be clear, central banks backed by a number of potent countries are a lot less likely to file bankruptcy than weak, stand-alone nations - this is why they do step up in crisis.

The second factor identified in political economy literature and popular debate alike, is the "blame game" between core and periphery, exemplified by Greece and Germany as prime lender and debtor nations in the Eurozone. And while the lack of a benevolent hegemon (Kindleberger 1973) is named as one reason why the world economy came to a halt in the 1930s, there is certainly truth to an analogy to the current debate of whether Germany is doing "enough" to keep the larger European project going. This can be supported for two reasons: While inward-turning of German politics in recent decades explains why a certain economic core nationalism has come about in the Eurozone, the persistence (if not perpetuity) of the situation is a functional outcome of Germany's current economic trilemma.

Historically, the ideal of European integration and Germany's dedication towards it to has shifted from political altruism towards economic egoism ever since the heyday of continental unity. William Paterson's 2011 accounts justify his view on why and how the Germans' position within the European project has changed over the years. In the author's view, German dedication towards unconditional European integration peaked out with Helmut Kohl's chancellorship, before which French-German leadership and the post-war thrust for peace had already started to fade out (Paterson 2011: 58-59). From then on, Germany's fiscal burden borne by its reunification, its ageing population and the prospect of an enlarged European community (and the unviability of chequebook diplomacy) would dominate public debates in Germany (Paterson 2011: 60-61) rather than pan-European topics. In other words, the political significance of its own economic wellbeing has become a more pressing issue than the prosperity of the whole continent.

Now, the second point: In current politics, Germany is apparently trapped in a trilemma of bad choices in an otherwise favourable climate for its domestic economy. Helping out the rest of the Eurozone would mean either giving up its trade surplus, clean central banking or its "no" to a European transfer union (Bibow 2013). The political and economic preferences of the German society are apparently output-legitimised (Scharpf 2013: 23) by low or negative interest rates on public debt and convincing economic growth rates. Put simply: as long as their politicians get the numbers right and the records straight, they will enjoy public approval. These factors make it hard for Germany to depart from its current position - for concerns about losing ground on its trade surplus, the ordoliberal Bundesbank legacy within the ECB and the no-bailout clause in the European treaties as the key elements of the political stagnation, which the country thus is unable or unwilling to break through. It is easy to capture why the favourable balance-of-payment position is an asset to the national economy versus the rest of the Eurozone: The identification with strength and stability provided by the Bundesbank and the legacy of the rising post-war economy have been pillars of the country's economic success and are hard to leave behind. Ironically, though, Bibow (2013: 18) accuses Germany of having done exactly that - abandoning its so-called stability culture, as coined by the Bundesbank. By means of an excessive wage restraint in order to lower its unit labor costs, and with it general inflation, Germany jeopardised the cohesion of the Eurozone. As Bibow points out, "Importantly, the decline in unit labor cost growth was not due to any acceleration in productivity growth, but caused by a marked decline in wage inflation. In other words, not German engineering ingenuity, but wage restraint gave German exporters an extra boost." (Bibow 2013: 16) To be sure, Germany forced the rest of the Eurozone on a track that suited its needs for a stable yet weaker common currency, but itself ignored the two-percent inflation target by far.

Concluding this section on Germany and going back to Scharpf's theory on uniform interest rates (Scharpf 2011: 12), the Maastricht regime has treated economies equally which evidently are not equal. Germany has no intrinsic justification to stop this from happening, as the current state of affairs improves their own economic standing. Still, in what concerns the anti-crisis actions of the European Central Bank, Bibow (2013: 615) shows that from within the trilemma of perpetual trade surpluses, clean central banking and a no-bailout Eurozone, breaking the principle of a clean central bank seems to be the most feasible - because it is a convincing case for the German public. One, inflation targeting itself does not grant economic growth in the Eurozone, and two, inflation per se is no longer a danger for an economy.

3.2 Traditional Policies, Quantitative Easing and Helicopter Money

3.2.1 Traditional Central Bank Policies

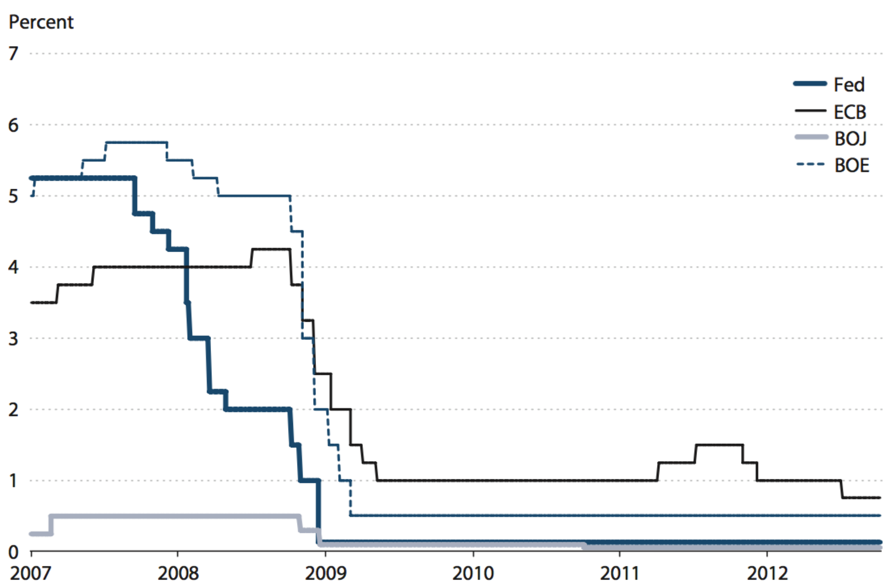
In the last few decades, *constrained discretion* (Bernanke 2011: 3) was the consensus of central banking: medium-term inflation targets or price stability combined with short-term monetary flexibility to absorb financial shocks was the common agenda. Additionally, central banks would act as a *lender of last resort* when necessary, opening discount windows to provide liquidity and buying up illiquid assets to keep banks functioning. Going one step further, the UK Treasury would allow swapping mortgage-backed securities for treasury bills for a limited time in 2009, and the Fed and ECB subsequently allowed swaps with foreign currencies from third countries. Governments ought to contribute to the efficacy of above-described tools by implementing *macro- and microprudential tools* in a structural and/or cyclical manner - Basel III is the most prominent example of recent years. It is the aim of these measures to stabilise financial markets by both surveilling and strengthening them (Bernanke 2011: 13).

Within the Eurozone crisis, the ECB has assumed the role of *dealer of last resort* for private banking and the lender of last resort for sovereign debt since 2012 through the *Outright Monetary Transaction* program. According to the Treaty of the European Union, the ECB can only buy up government bonds in the secondary market to provide holders of these assets with liquidity. If done right (to avoid inflation and reckless indebtedness), as De Grauwe (2013: 521, 530) lays out, this is a desirable measure as it does away with a structural disadvantage of any monetary union compared with a single-state-and-currency system as the US.

These policies have moved to the core of the debate as many scholars described them as the more viable complement to standard operations as soon as the *zero lower bound* in interest rates had been reached. But by 2015, this dam has also been broken: negative nominal interest rates are being put in place by the ECB, overbid by the Swiss and Danish Central Bank to defend their respective national currency - in a competitive rally incurring ever-higher punishment rates. by lowering short term nominal interest rates to -0.2% in September 2014. As Orphanides (2014: 10) explains, this step may be an excuse - to avoid bolder quantitative easing measures and reorganisation of the institutions in question - with unknown consequences. The more probable approach is that the Eurozone needs both interest rate adjustments and quantitative easing in their monetary policy package. Not to forget, McCulley (2013) conceptualises monetary and fiscal cooperation, drawing the conclusion that it takes both to succeed: the Eurozone could escape its depression trap with less central bank independence and a veritable stimulus program. An expansion of the monetary base through unconventional central bank policies, in combination with a classical demand-side program such as the European Commission under Juncker proposed in late 2014, promises to do the job.

3.2.2 Quantitative Easing

Lowering and forward-targeting the operating target for short-term nominal interest rates was one of the measures from 2008 onwards, but did not meet the expectations concerning growth and development. What is more, base interest rates cannot realistically fall far below zero for prolonged periods, because banks would rather hold their assets than accept punishment interest rates from the central bank (Fawley and Neely 2013: 51). Also, as visible when comparing interest rates around major central banks, this traditional measure lost its thrust soon after the onset of the crisis, when main policy rates stagnated from 2010 on (see Graph 4). Since then, quantitative easing has been the debated measure - without precedent in the Eurozone - in order to halt economic disruptions. After pondering for years of crisis, as Japan did a decade ago, the ECB has finally opened this new front line in their policy battle in late 2014.



NOTE: The main policy rates for the Fed, ECB, BOJ, and BOE are, respectively, the federal funds target rate, the main refinancing operations fixed/minimum bid rate, the uncollateralized overnight call rate, and the official Bank rate.

SOURCE: Fed, ECB, BOJ, and BOE.

Graph 4: Major Central Bank Main Policy Rates (Fawley and Neely 2013)

Quantitative easing is a group of policies pursued by a central bank which directly expands the monetary base in a currency area, aimed to ease credit crunches, help governments out of liquidity traps and finally stimulate economic growth. In the recent financial crisis, quantitative easing has been carried out in the United States, Japan, the United Kingdom and the Eurozone, with different policy foundations, legal requirements and duration periods. It is not a new idea, though. Keynes (1930) already argued that central banks, in the matter of a liquidity crisis, "should combine to maintain a very low level of the short-term rate of interest, and buy long-dated securities" (Keynes 1930, p. 386), the very action that Western central banks are pursuing.

Most prominently in recent history, the US Federal Reserve (FED) accompanied a number of emergency facilities in the wake of the Lehman Brothers bankruptcy in 2008 with systematic purchases of commercial bonds, asset-backed securities and government-sponsored enterprises - and returned with another programme in 2012 (Fawley and Neely 2013: 60, 72). The total engagement of the central bank was $1.75 trillion in 2008 and a similar number from 2010 until 2012, though distinct in its composition (Hofmann and Zhu 2013: 24). The European Central Bank reacted to the onset of the financial crisis with punctual increases in long-term liability purchases through its Securities Markets Programme in 2009, which was later substituted by the Outright Monetary Transactions portfolio. In contrast to the FED's operations, the ECB's early operations were largely sterilised, i.e. the effect on the monetary base was largely reversed to avoid inflation, and government bonds were only purchased in the secondary market, in accordance with the EU's legal provisions (Fawley and Neely 2013: 81).

Here, the Japanese experience in the early 2000s is a worthwhile comparison case. Shiratsuka (2010: 94) concludes that in the years of quantitative easing carried out by the Bank of Japan between 2001 and 2006, the policy commitment communicated to market makers mattered more than the actual effect of the operations. Essentially, *forward guidance* - promising a certain interest for a prolonged period of time including a confidence interval - became inherent as nominal interest rates neared zero. One key difference between Japan and the Fed/Eurozone programmes is that the size and composition of the central banks' balance sheets were adapted in different ways: while the Bank of Japan conducted quantitative easing by rearranging its balance sheet (including asset-backed security holdings), the ECB and Fed also made use of credit easing by means of expanding their balance sheets excessively. Attempts to measure the effects of these policies are somewhat mixed: whereas Krishnamurthy and Vissing-Jorgensen (2011) identify significant impact on future interest rates, Fawley and Neely (2013: 81) argue that outcomes for the real economy are beyond statistical feasibility.

3.2.3 Helicopter Money Drops

What is yet to be pulled out of Pandora's box is the policy proposal *helicopter money*. In the United States, stable real GDP growth rates seem to have made larger-scale loose monetary policy with engagement of private spending unnecessary at the moment, given the risks attached to this strategy. In contrast, the condition of the Eurozone is far from upbeat. The concept of helicopter money is being discussed as an instrument for central banks to reinstall the economy by providing individuals with additional liquidity to be spent in the real economy. The difference to quantitative easing is simple: not the government, but the private consumption sector is the recipient of the new central bank issues, in the belief it would make a difference for the sake of economic output, sovereign debt and central bank legitimacy thus democratic processes.

Milton Friedman famously coined the term 'helicopter money' in his 1960 accounts on monetary equilibria, describing it as cash falling from the sky and picked up by the people or, more practically, a simple consumption cheque from the central bank with an expiry date to each and every citizen. Picked up again by Ben Bernanke (2002) and Willem Buiter, the idea has gained new momentum: In a scheme for practical implementation scheme, Wadhwani (2013: 17) presents central bank-financed vouchers and tax incentives for every household. Buiter (2014) makes clear that in the current economic state of affairs in Europe, helicopter money is the tool of choice to avoid a Japanese scenario. As base interest rates hit the zero lower bound and stagflation scenarios become a real concern, cash stimuli for individual citizens in crisis-struck regions are a proposal worth exploring. Inflationary pressure could even be welcome to avoid deflation. What is more, demand is boosted as long as the price of money is positive due to the irredeemability of helicopter money even with negative base interest rates. According to Buiter (2003), McCulley and Pozsar (2013) and Reichlin et al. (2013), the irredeemability is the key facet of the idea that makes it superior to classical quantitative easing in its inflationary effect, altering prices and real GDP thus bringing down relative levels of public debt. In the current situation, such an effect could be welcomed: with deflation on the horizon and governments high in debt, the joint impact of quantitative easing is expected to balance the impulses for private consumption, investment, production and sustainable treasury alike.

For the sake of illustrating this argument, venturing into developing countries is a worthwhile excursion: the challenges associated with excess liquidity have occurred in 'resource-cursed' oil and gas exporters of the Global South, and there, direct distribution of respective revenues has *also* been proposed as a way out of trouble. In the last few years, policy proposals for resource-cursed countries (which are usually hard to catch in terms of loan and aid conditionality) have included direct cash distribution frameworks to let citizens participate in revenues obtained from commodity exports. Advocates have expressed their high hopes that in spite of apparent political and economic implementation hindrances, the benefits of such a policy would far outweigh its administrative cost and inefficiency losses (Weinthal and Luong 2006, Moss and Young 2009, Moss 2010). Other than public future savings funds or immediately increased government spending, cash distribution programmes are expected to increase political accountability and transparency, incentivise tax registration (e.g. by tying eligibility to oil dividends with a personal tax account) and improve equity and poverty (Palley 2003, Gillies 2010). In summary, "usually governments have proved themselves to be rather bad at coping with the revenue volatility that such a policy entailed. By contrast, private agents respond much more appropriately than the argument for a custodial role presumed." (Gunning and Collier 1996: 7) Apparently, individuals are believed to be trustworthy and capable enough to deal with cash distribution of fiscal revenue even in low-developed regions. So should people in the Eurozone periphery be.

While quantitative easing is a controlled policy measure applied by a formally independent central bank, which in the European case is even untied from national institutions, the policy outcomes do resemble similar elements as in the resource-curse: additional external government liquidity without taxpayer linkage, fear of inflation, temptation of fiscal imprudence and and a certain out-of-touch feel with local constituencies. Direct distribution of available funds helps bolster long-term economic prosperity, strengthen European democracy and bring back responsiveness on a supranational level without acting irresponsibly. Helicopter money, in addition, is a meaningful promise to reverse the depoliticisation of crisis response action: co-entrusting citizens with the additional funds to be allocated within the economy restores responsiveness, even if on a rather populist note, brings back responsiveness - on a supranational level. While the democratic drift has so far been a match between (peripheral) national governments becoming more responsive and the Troika (including the ECB) playing the responsible "bad cop", well-designed helicopter money may alter European engagement and lift responsiveness onto the European stage, while allowing the established party system to balance their obligations and win back ground from extreme political forces. In the currency union, external devaluation is no longer a choice and internal retrenchment devaluation has reached its limits. Monetary demand-side policies can finally halt the stalemate of German-versus-the-rest European gridlock politics by increasing productivity while keeping the fiscal burden under control.

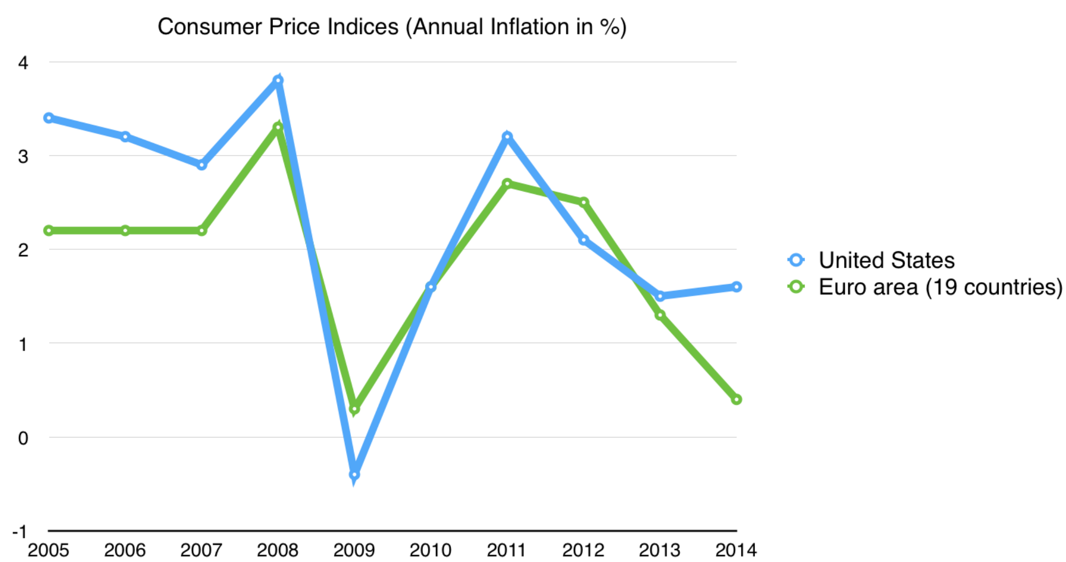
4. Unconventional Monetary Policies: Chances and Risks

4.1 Growth

The intended relationship of quantitative easing and economic output, traced in a technical process, is the following: when central banks invest in long-term bond issuances, most notably from governments, the price of these assets is driven up, while their yields react invertedly and are ought to go down. Subsequently, investors are demotivated to engage in these financial products and become more likely to invest elsewhere, such as in stocks and long-term private credits. Both options are seen favourable to the greater economy, since borrowers in the real economy could gain access to long-term liquidity and increasing stock prices influence market expectations in a positive way (Vale 2014: 72).

Orphanides (2014) confirmed the need for the then intended quantitative easing programme, comparing the FED' and ECB's asset values, in which the United States' central bank has far outperformed the Eurozone in the last 3 years - which coincides with considerable growth momentum in the US economy (see Graph 1). Specifically, the Federal Reserve increased its balance sheet from \$ 3.0 trillion in early 2013 to about \$ 4.5 trillion in late 2014, whereas the ECB's asset values decreased from € 3.0 trillion to about € 2.0 trillion in the same time frame (Orphanides 2014: 21).

One key concern expressed in this context is inflationary scenarios that run against every central bank's target of stable market prices. Hofmann and Zhu (2013: 27) analysed inflation expectation levels in the US and the UK after the collapse of Lehman Brothers, indicating that the announcement of quantitative easing programmes halted and reversed disinflation and deflation fears, but did not spur inflation, as was the general fear. Indeed, as visible in Graph 5, actual consumer prices have not reacted to quantitative easing as strikingly over the past five years: although the Federal Reserve conducted two quantitative easing programmes of massive size compared to the Eurozone, inflation rates in the two macroeconomies developed quite similarly throughout the crisis years. Furthermore, the Eurozone's inflation data even showed signs of potential deflation in some of its member states, making the inflationary effect connoted with quantitative easing less of an evil. To the contrary, inflation can do away with pressure from sovereign debt by decreasing its value relative to a country's GDP and can decrease real interest rates, thus spurring consumption and investment (Krugman 2010).



Graph 5: OECD World Economic Outlook, November 2014

One key reason for past economic downturns - which is not reflected by general inflation rates - is potential housing bubbles. Even before the last financial crisis, Borio and White (2003) suggested that central banks should set base interest rates a notch higher than otherwise planned in order to take increasing housing prices into account and avoid them from damaging the macroeconomy in the long run. The problem with this approach its that the exact translation of housing into basis points is hard, if not impossible, to quantify, and the adverse effects on the rest of the economy, if set too high too soon. Therefore, Vale (2014: 74) proposes two alternative options: one, housing should be reintegrated into inflation rates, so that bubbles in the respective markets become less probable; two, housing acquisitions could be taxed more substantially or alternative forms of investment could be subsidised more actively, in order to give institutional investors disincentives for big-scale housing engagements.

Even less than in the Japanese case, concrete effects have been measured for the more recent cases of quantitative easing in the US and the Eurozone between 2008 and 2014. However, while Putnam (2012) signalled positive effects on long-term asset yields and the stability of the banking system but is sceptical about effects on economic growth, Hausken and Ncube (2013) could confirm some of the major trends derived from the policy by hypothesising an alternative scenario without quantitative easing. According to their findings, the results are inconclusive for housing, consumption and exchange rates, but significant for unemployment, inflation expectations and industrial production. Effects on growth were quantified at about 0,7% additional GDP growth in the case of the United Kingdom. Fund managers, however, doubt the kick-starting effect of QE and vocalise expectations that globally, quantitative easing would only rotate growth, thus bring it forward in time, while it may break in when the purchase are terminated (Grantham 2015). For the Eurozone, the present programme from 2015 until 2016 is designed in a way to target bolstering growth, though results will show after time. The current first numbers, however, are positive, even if only carrying signalling character (Draghi 2015).

The expected effect of helicopter money drops, compared to quantitative easing, are hypothetical in literature yet well established in its functioning for the macroeconomy by now (Bernanke 2002, Buiter 2013, Bossone et al. 2014, Galí 2014, Sheel 2015). Regarding growth stimuli, rather than direct consumption cheques to households - which would exceed the existing mandate of any central bank - fiscal stimuli also known as 'overt money financing' are being discussed in economic literature. Here, the central bank buys debt issuances from member states which are by nature irredeemable, i.e. mature in perpetuity. In short, the advantages claimed by proponents of the policy lie in the cooperation of a fiscal stimulus with loose monetary policy, apparently the most effective combination at the zero lower bound and stagflation expectations (McCully and Pozsar 2013). First, helicopter money always increases demand (Buiter 2014), whereas the expectations for quantitative easing are mixed at best. Secondly, there is no inherent increase in interest rates which would create a crowding-out effect. Finally, given the theoretical models, helicopter money must by nature be quicker in its effect on inflation than any other form liquidity provided by central banks, since it is designed to "to households with a relatively high marginal propensity to consume ordinary goods and services" (Bossone et al. 2014). While Galí (2014) confirms the positive expectations on economic activity without depending on an independent central bank, Muellbauer (2014) quantifies the potential effects of a 500€ handout per citizen in the Eurozone periphery, amount ing to about 1.1% to 2% of additional GDP growth (for Spain, Portugal, and Greece), but less than half of that for Germany.

4.2 Sovereign Debt

The ECB's focus on sovereign debt purchases in its current 2015-2016 quantitative easing programme is clearly connected to the troubling state of some Eurozone members' financial standing. Since in many of these countries, austerity paths accorded with international lenders have pushed back initiatives to stimulate growth, the ECB's policy is expected to compensate some of the shortcomings on the demand side.

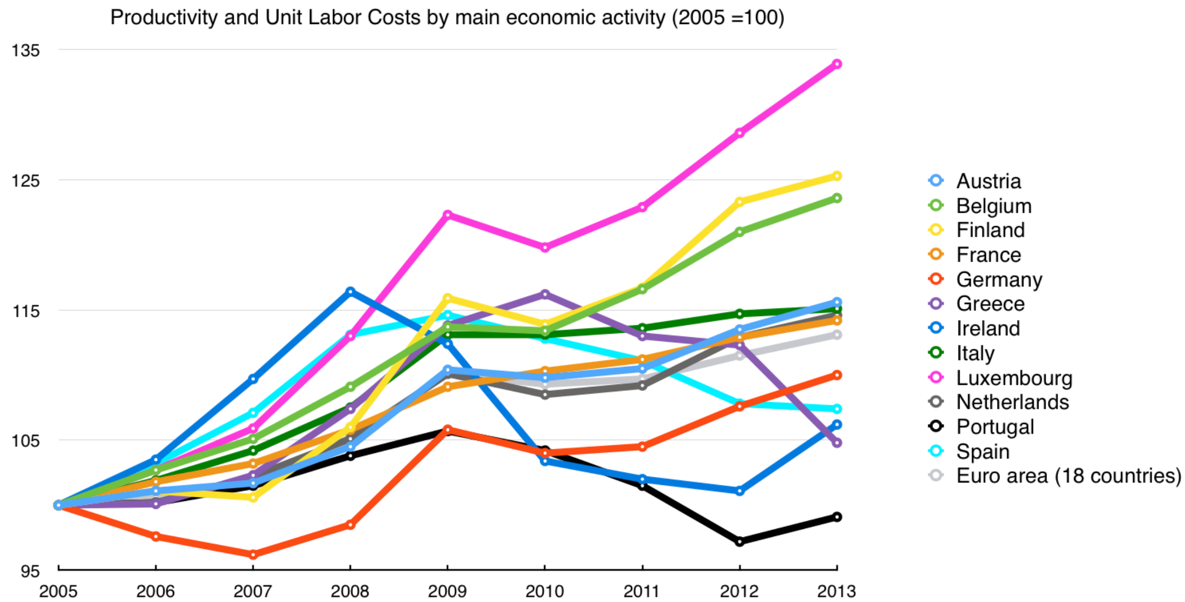
One key risk that the ECB assumes in its most recent quantitative easing programme, however, is unprecedented credit risk. Other than the FED's purchase of highly-rated US treasuries, the Eurozone's sovereign debt issuances suffer from increased risks of default, resembled in basis point premier ever since Greece came into trouble in 2009. As Tempelman (2012: 6) suggests, the central bank pursues fiscal rather than monetary policies when it purchases public debt bonds which bear incremented amounts of risk - which the rest of the Eurozone stands liable for. Nevertheless, at least in theory, the ECB as an independent institution, carries no obligation to be active in any market, which adds credibility to the respective peripheral nations' financial health and the Euro's greater stability. At the end of the day, who would trust a currency union which is not labelled trustworthy by its own independent central bank?

According to Buiter (2014) and Wood (2012), a key benefit of helicopter money is its zero-cost: when a central bank underwrites monetary base extensions and provides the resulting liquidity to either consumers or, more realistically, governments, to spend it on private or public consumption, there is no effect on the public debt burden. This works in one of two ways, explained by Bossoni et al. (2014): either, the ECB purchases special government bonds which are irredeemable thus are issued for perpetuity and written off at a future point in time, or, the central bank simply reimburses the profit in interest rates borne by governments to the respective countries. Either way, the credit rating of the sovereign is not affected, since there is no effect on future borrowing. On the sidelines, such a move could even lower the refinancing cost in the financial market, for there is competition from another tool to manage public budget constraints. The key, again, is that sovereign debt is not to be increased by such measures. Today's Eurozone members find themselves at alarmingly high levels of public debt, which may make another crisis of the financial markets unsustainable for years to come. However, policymakers have departed from the rationale of pure austerity and appreciate the effects of demand-side stimuli after the respective economies were restructured under the pressure of international lenders. This would work in Greece, as in the rest of the Eurozone periphery, and avoid Germany from being over-exposed to liquidity, as feared with the advent of the current quantitative easing programme.

4.3 Macroeconomic Imbalances

The announced QE programme will have distinct effects on the individual Eurozone member states, and by nature cannot halt macroeconomic imbalances discussed earlier. The reason lies in the key according to which liquidity will be distributed among member states (Ruparel 2015). The bulk share of the € 1 trillion programme will flow into France and Germany, countries of which at least the latter arguably needs excess liquidity the least. To the contrary, the injection might even cause certain economic bubbles to inflate. In peripheral states like Ireland and Greece, for instance, the ECB already owns a fair share of the respective debt markets - the limit of 33% of domestic debt ownership by the ECB limits the effect of the quantitative easing measure in these areas. However, the liquidity provisions set free in the coming years may spill over: even if Germany is the main beneficiary, the increased monetary base would actually come in handy for the rest of the Eurozone when the effect disperses across countries (Ruparel 2015). With regard to the debate about diverging unit labor costs and uniform base interest rates for Eurozone members both in the core and periphery, monetary policies are a facilitator at best in the current setup.

German fears that quantitative easing might hurt their economy in the long run are unjustified. In his most recent contribution, De Grauwe (2015) comments on side effects of this quantitative easing programme on fiscal transfers - which he has been an advocate of for years, but are not occurring: In this programme, the ECB receives interest payment from all the countries involved, but obviously higher margins from peripheral European countries that bear higher yields on their sovereign debt. When these profits are redistributed to the ECB members, the proceeds go back to the the countries according to their participation capital, which favours Germany most. According to De Grauwe (2015), German taxpayers are not even put at any future risk connoted with sovereign bailouts: if any of the countries of the Eurozone periphery were to file bankruptcy, the debt purchased by the ECB would just not deliver its interest payments anymore.



Graph 6: OECD World Economic Outlook, November 2014

That being said, as shown in Graph 6, the general trend in diverging unit labor costs could actually be halted in some of the peripheral European economies. While Germany continued its policies of marginal increases in wages and its focus on productivity gains to outperform the rest of the Eurozone, it has remained the overall winner of the Eurozone's internal competitiveness race. Still, when looking at the years since the crisis, Spain, Greece, Ireland and Portugal could at least hold their relative position against Germany, even if at the cost of massive retrenchment, fiscal austerity and social turmoil. Since the crisis outbreak in 2008, however, a different group of unusual suspects - countries considered part of the original Eurozone's core - has lost substantial grip in the question of competitiveness and external trade. Especially Finland and Belgium are facing structural questions (on a larger scale than neighbouring Luxembourg) that provide evidence that economic convergence is still beyond feasibility with the current sets of policies.

As long as a political agreement over nuanced financing of certain regions remains out of sight, helicopter money drops are practically not superior to standard quantitative easing. In order to increase the degree of economic cohesion between member states, the mandate of one, if not multiple Eurozone institutions would have to be altered. The advantages of moving in such direction should not be underestimated, though: By providing liquidity injections to select geographic entities or consumer segments instead of trickling down liquidity to the whole monetary union, inequalities within the Eurozone could be bridged, regardless of the inflation risk unanimously borne by the rest of the currency area. Technically, helicopter money is believed to address macroeconomic imbalances more concisely: other than with quantitative easing, exit scenarios are easier to manage with overt money financing, since the liquidity flows can simply be stopped as no dependency exists. When there are signs of economic overheating, no more consumption cheques are issued, no more public works subsidised - as simple as that. Quantitative easing, on the other hand, is well known as to have further-reaching consequences when stopped at the wrong time: because there are implications on interest rates, bond yields and stock prices, halting monetary expansion could accelerate the burst of economic bubbles in certain member states or industries, especially when done abruptly.

4.4 European Democracy - Filling one Gap but Creating Another

4.4.1 The ECB's Impact on Bridging Responsibility and Responsiveness

One of the underestimated effects of unconventional ECB policies is their effect on the democratic process in countries most affected by the aftermath of banking collapses, austerity plans and subsequent socio-economic disruptions. As pointed out before, political scientists have identified a growing gap between governments acting responsibly to international lenders and staying true to their own voters, leading to political disengagement or a rise in populist/extremist parties that pressurise established party systems. Admittedly, the ECB as part of the Troika institutions has been at the table when hurried decisions about bank bail outs and fiscal retrenchment packages were made. Also before, the central bank has played an important role in the financialisation of the European economy in its neoliberal settings, stressing fiscal prudence and the liberalisation of domestic markets. However, the emerging role of central banks as a facilitator of fiscal and monetary cooperation sheds a new light on the ECB's potential to help resolve the democratic dilemma present in crisis-struck Eurozone members.

Quantitative easing changes the facts for domestic governments and their constituencies in the current economic and political situation by relaxing the constraints in which national politics have been trapped. Specifically, the central bank steps in by providing demand for sovereign debt issuances, which lowers their yield premium thus makes it easier for such countries to fulfil their refinancing needs in the open market. This way, the medium-term dependency on liquidity from the EFSF and EMS bailout programmes decreases and the respective countries are subject to less credit conditionalities which had tied their hands in the first place. As a result, national governments regain the possibility to bring back ideology back into domestic political debates, as suggested a necessary step by Ferrera (2014), because they do not necessarily have to break promises expressed to their voters for financial constraints and limitations set by international lenders. This is an important step forward in strengthening the political mandate of national governments: by providing manoeuvring space in an improving economic climate and less pressure from the refinancing issue area, governments can respond to their constituency, avoid to lose more voters and keep people engaged in important debates on how to best combat the specific elements of the crisis.

Helicopter money drops could make an even more substantial contribution to such a development. The hereby presented argument for the co-introduction of direct monetary stimuli into national economies instead of sole full-blown quantitative easing is based on two reasons: one, as tackled in the paragraphs above, there is a macroeconomic superiority to the notion: for instance, this is a means to avoid that banks and public institutions will sit on additional liquidity thus it can circumvent the threats posed by the power of finance and pumped-up government sectors, if done right. But the second reason, connected to the debate of democratic crisis in the periphery, shows that helicopter money is more: it can compensate for the accumulated loss in citizens' trust and engagement in political decision-making. In an argument for helicopter money, Muellbauer (2014) calls for a quantitative easing programme 'for the people', such as through a direct bank transfer from central bank to each and every individual's account, or a tax break underwritten by the central bank. Such monetary policy does not only increase demand, as shown in a previous section, but it would not affect the level of sovereign debt. Fiscal-monetary stimuli of such nature enable governments to give back to their constituencies without failing to deliver to international lenders and dismantles the constraints over national party politics.

4.4.2 Fading Trust, Central Bank Independence: Yet Another Democratic Flaw?

No light without shadow - and in this case, maybe even a tunnel at the end of the light. While the central bank policies are a capable tool to bridge the gap between responsible and responsive governance in Eurozone member states in extraordinary states of financial crisis, the ECB's unconventional policies reveal their considerable downside for European democracy. The more power is transferred from the political arena to an innovative yet independent central bank, the more decisions are taken without listening to voters in the member states. Central bankers enjoy sole output legitimacy, i.e. trust from citizens, as long as their policies work in the greater economy's favour (see Scharpf 2011). However, central bank independence relying on pure trust poses a dramatic risk for democratic legitimacy if not all aspects of transparency, supervision and sanctions are meticulously obeyed, because voters have no choice in electing central bank officials, amending their policies or putting significant pressure on how they are executed. Trust remains the only tool of holding the independent ECB accountable - which I consider a weak point in an otherwise well-organised European framework of democratic processes.

In detail: Public trust has always been a decisive element determining success or failure of central bank action (Bernanke 2011: 3). In direct ways, it raises credibility of a central bank's doing; indirectly, banks and businesses benefit from it in their daily activities as consumer trust strengthens. Independence from elected governors has become the international benchmark of central banking, providing the fundament for both their legitimacy and accountability. Input legitimacy is derived from constitutional frameworks (such as the Treaty of Europe), whereas their output legitimacy is nurtured by positive public approval of central bank action and efficacy (Sibert 2010: 3). Formal accountability implies high standards of transparency, substantive accountability is made sure through exercise of power (e.g. sanctions). While Sibert (2010) generally concedes central banking legitimacy, it questions its accountability. In the case of the European Central Bank, it is surprising to her that the bank resides entirely outside the electoral framework, given that ECB action is vital for over half a billion Europeans. While this high degree of autonomy is bravely defended by the institution with regard to the specific layout of the Eurozone, a grouping of independent states with supranational bodies (ECB 2002: 48), many scholars disagree about the inevitability of the ECB's "untouchability" notion. Specifically, the fact that ECB officials can neither be forced to testify in the European or national parliaments, nor be withdrawn from their office save for serious crime delicts, raises doubts (De Haan 2000). Minutes of official board meetings are generally withheld from the public for decades and there is no instant sanction mechanism whatsoever. In a report for the European Parliament (EP) assessing the quarterly *Monetary Dialogue* between the EP and the ECB, Claeys, Hallerberg and Tschekassin (2014: 7, 11) point out additional problematic areas: according to them, the EP is too soft, too unknowledgeable and too powerless vis-à-vis its ECB interviewees. They also argue that the ECB's newly added function as a banking supervisor is another breed of incoherence in the accountability chain, since the Parliament can only pick from prospective board members that have been preselected by the bank itself. This procedure may also hurt the credibility in these institutions in the medium term.

Evidently, the stuff that central bankers' actions factually rely on is the level of trust attributed to them from the respective citizenry. While Kaltenthaler, Anderson and Miller (2010: 1264, 1270) show that continental Europeans including PIIGS citizens generally trust their central bank thus legitimise the ECB's policies, about a quarter of the population blame the European Central Bank and its policies for adverse economic outcomes. The authors predict that the bank could easily run out of public support in the event of prolonged and deep recession thus lose their aforementioned output legitimacy. In fact, Wälti (2012: 9) proves that not only variation in inflation rates reduces overall trust in the ECB, but so does a rise in unemployment (even a lot more significantly). Hayat and Farvaque (2012: 12) list a whole variety of independent variables with significant effect on trust in central banking. In their quantitative analysis, Brunetti, Di Filippo, and Harris (2011) confirm that central bank actions in the interbank markets leverage output legitimacy *in spite* of the damaging side effects of unconventional monetary policies to the economy. As a consequence, they prescribe more transparency (e.g. by publishing in-depth bank stress test results) to enhance central banks' formal accountability. In any case, it is acknowledgeable that trust in central banks is crucial, but anything but self-evident and a lot more fragile than commonly suggested. Specifically, quantitative easing is a major intervention in the fiscal equilibrium and demand-side policies of member states, generating new risks for the central bank's reputation in case its policy should turn out (partly) unsuccessful. Muellbauer (2014) presents an argument why helicopter money might be damaging the reputation of the central bank, naming a falling incentive to do work, deterioration of the faith in the currency's stability and the perception that trickling down without anything in return is unethical.

Therefore, it is the view in this thesis that political unaccountability has to make way as soon as price stability ceases to be the sole target of a central bank (as also proposed by Lastra 2012: 17, coining the term *accountable independence*). When the ECB is assigned additional tasks for its accumulation of expertise, it should also increasingly be exposed to public scrutiny through transparency, parliamentary sanctions or even be governed by a supranational *economic government* delegated by popular vote. With regard to central banking independence, freedom *to* pick the right monetary policy shall not be confused with freedom *from* checks and balances that are derived from citizens as the ultimate democratic hegemon. Or, as Posen (2010: 4) puts it: “Deeds matter, not institutional appearances.“ A central bank should not retain its independence for the sake of its reputation, but to be able to say ‘no’ to economically insensitive actions, such as the buy-ups of trash bonds.

Summing up the consequences of the emerging unconventional monetary regime in the Eurozone, the European Central Bank is capable of bridging responsiveness and responsibility for respective governments for it can provide them manoeuvring space to give back to constituencies. Unlike in EFSF and EMS bailout programmes, systematic treasury bond purchases by the European Central Bank do not limit governments in their political programmes for they regain freedom from adverse credit conditionalities. Additionally, the spread for counterpart risks associated with peripheral Eurozone is relieved when constant, foreseeable and considerable demand for their issuances is provided by the ECB. When governments can count on someone to show interest in their liability papers, interest rates are likely to fall, independently from other factors determining the actual basis point premium.

On the other hand, unconventional central banking comes at a price with regard to democratic processes: for the ECB has acted on and expended its status as a politically independent organ, citizens are indirectly relying on an institutions they did and do not vote for, whose representatives lack inclusion in democratic processes, regardless of their increasing influence. As long as the ECB's policies are not on the ballots for referendum in one way or another, relief in the responsibility versus responsiveness debate is only conditional and bears the risk of backlash.

5. Discussion and Conclusion

5.1 Growth, Sovereign Debt, Macroeconomic Imbalances, Democracy

There is increasing scholarly agreement that raising weaker Eurozone members' productivity is preferable to continued retrenchment, given the socio-economic repercussions and the deepening of the political tensions in the respective democracies. Again, it is not the aim of this paper to blame Germany for the current situation. While Europe's lead economy certainly benefits from record-low treasury interest rates and booming exports, it also carries an undeniable fiscal burden, as discussed before. Thus, other options are to be explored for a stronger yet sustainable monetary area.

The unconventional measures taken by the European Central Bank could add important impulses for the key areas of concern, growth, sovereign debt levels, the macroeconomic imbalances and European democracy - to different extents.

As shown, quantitative easing has had slight effects on development in macroeconomies where applied generously and over a specified long-term time horizon. Japan has been an example where the policies did not suffice in quality and quantity to change the momentum of growth, whereas QE1 and QE2 in the United States have largely been praised as providers of financial stability, much-needed liquidity and a boost for the general economic climate. In the European case, central bank action between 2008 and 2014 was on a scale too small to be measured - but the generally weak tendencies in market indicators until recently stand as proof that what had been done was hardly enough. On the contrary, the proposed quantitative easing programme for 2015 until 2016 has been welcomed by academics and analysts alike as a sound framework to build rising growth expectations on.

Crisis Symptoms	ECB Policy Effects		
	Traditional Policies	Quantitative Easing	Helicopter Money Drops
Prolonged Growth Crisis	✗ Not a Target	✓ Positive Signs + US role model	✓ Academic Advocacy
Sovereign Debt Level Crisis	✗ Marginal Relief	✗ Increases Public Debt	✓ No Effects on Public Debt
Macroeconomic Imbalances	✗ Hardly any Prefe-rences Allowed	✗ Politically Unfeasible	✗ Politically Unfeasible
Eurozone Periphery Democratic Crisis	✗ Not a Target	✓ Space for Governments ✗ ECB Indepen-dence creates another gap	✓ Space for Citizen & Governments ✗ ECB Indepen-dence creates another gap
	2008-2014	2015-2017	Hypothetical

Table 1: Overview between different ECB policies and their effect on parts of the crisis

With regard to sovereign debt, quantitative easing does not deliver miracles for the Eurozone: the overall debt levels stay untouched by the ECB purchases from the secondary market - or might even increase if there is growing incentives for borrowing nations to take on larger amounts of debt through decreasing sovereign bond yields. What is more, the ECB assumes considerable credit risk when purchasing low-class investment grade bonds from sovereigns. On the other hand, quantitative easing at least does not do much of a harm to the issue area of sovereign debt in advanced Eurozone economies, as core countries around Germany enjoy interest translated into ECB profits and are not exposed to the adversities of fiscal transfers in case of bankruptcies.

Macroeconomic imbalances concerning unit labour costs and equal base interest rates for unequal economies in the Eurozone is an area that cannot be solved in the course of the ECB's past and proposed policies, as there is no political agreement over preferential liquidity injections into specific areas of the Eurozone. In early 2015, the Bundesbank voted against quantitative easing altogether, not to think of their approval for disproportional financing favouring the European periphery.

In the crisis of responsive versus responsible governance in European democracy - and following Peter Mair's accounts, particularly in the Eurozone periphery - unconventional central banking has a major impact on the magnitude of the gap to be bridged for national governments. Quantitative easing gives them relief in their treasury activities, potentially boosts growth thus helps bettering the general economy, which is by nature a major point potential voters are looking out for. In this regard, output legitimacy for the central bank is increased and provides domestic politics with manoeuvring space in their respective polities. On the other hand, growing influence of ECB policies on national economic outcomes raises questions about the institution's input legitimacy in the long run. While constituencies may be turning a blind eye on this beauty spot of innovative central banking, there is justified concerns that the ECB may be extending its implicit mandate to areas where voters have a stake - but no say in. The democratic flaws in unaccountable central banking include lack of voter legitimacy, stagnating parliamentary control and unsatisfactory transparency rules, which do not meet the expectations of an ever more powerful political institution.

Helicopter drops in the form of fiscal-monetary cooperation (overt financing by extending the money base) or direct cash/cheque injections for consumers have been applied to the European case in various models. There is general academic agreement that helicopter money, the state of the art of central bank crisis reaction policies, would unite the advantages of quantitative easing and exclude some of its potential drawbacks. Specifically, helicopter money is expected to boost growth more than quantitative easing does, while leading to similarly poor results at evening out macroeconomic imbalances between Eurozone members. The real advantage lies in the non.accumulation of additional sovereign debt, as helicopter money provides a cooperation of fiscal stimuli or consumption cheques without adding to a government's liabilities - a kind of luxury only to be seized by macroeconomies with an international reserve currency. Additionally, as shown above, helicopter money paid out to individual consumers or, to a lower extent, when provided to governments in fiscal-monetary cooperation, could mean an important step forward in reestablishing responsiveness in crisis-struck Eurozone members, but come at the same price of decreasing policy legitimacy endangered by the central bank's independence and lack of accountability.

5.2 Conclusion

Certainly, the number of favours asked from central banks has increased substantially. Next to achieving the original targets as price stability and (not thwarting) economic prosperity, financial stability has become an essential task for today's central banking. But given the nature of these complementing yet different and accumulative fields of activity: where is the point when no additional tasks can be transferred, which national or EU government entities cannot or should not address for their political dependency? According to Tinbergen's rule, the number of tasks should not exceed the number of policy tools - otherwise the targets will not be met.

While it is also my firm conviction that everything that is necessary should be done to preserve the Euro, as Mario Draghi put it in 2012, central banking can and should also play a role in maintaining overall financial stability by many, but not *all* means. Flooding the markets with liquidity derived from quantitative and credit easing, especially through balance sheet extensions and rearrangements, cannot be a medium- or long-term solution in the pursuit of getting away without rebuilding institutional and regulatory bodies. Otherwise, *zombie banks* that are not only illiquid but factually insolvent will continue to haunt our economies when they should long be "dead". Make no mistake: While bank stress tests raise the issue of "dead banks walking", they do not grasp the problem by its roots. Institutions that keep running on liquidity provided by the central bank without a sustainable business model might just create another source of financial instability. Banks should only be helped out when they are illiquid, not when they are chronically insolvent.

What must not be neglected here is the global aspect of central banking: externalities in monetary policies can no longer be treated external if the underlying economies are interwoven. In this way, Borio (2011: 16) promotes a view that no solution can be found domestically unless the "global village" is not in order. From a European perspective, De Grauwe (2012: 6) beautifully illustrates that the evil of multiple equilibria, pushing the periphery from the table that central banks are supposed to serve in equal terms, must be eradicated. Frankly, this can be achieved through a *true* banking union, as prominently proposed by De Grauwe and Buiter; a fiscal union (Peroni 2012: 191) or a dissolution of the Eurozone (e.g. by making Germany leave instead of letting the GIIPS fall, as Soros (2012) argues). Eventually, second-best alternatives should be replaced by a sounder banking union with a fiscal component, which would require major amendments in the existing treaty framework and a distinct mandate. (Buiter and Rahbari 2012: 21; Buiter 1999; Garicano and Lastra 2010: 604)

After the exhaustion of interest rate targets and forward guidance, quantitative easing is intended to bring relief to economic growth, but bears the risk of escalating sovereign debt and inflation. Helicopter money drops, in turn, are by nature less of a threat to public debt, but seem politically unfeasible as they are unprecedented. Both monetary policies come with additional downsides: first, they do not reverse macroeconomic imbalances within the Eurozone thus cannot address the need for re-politicisation of European economic governance. For this matter, decision makers in the political arena cannot be let off the hook: the European Semester might have to be strengthened in order to sanction divergence of balance-of-payments - aiming at countries with both excessive trade deficits and surpluses. Also, it must be determined whether the Eurozone can continue to function without common treasury activities and an economic supervisory board, the infamous European economic government. Second, as innovative central bank action relieves state budgets and popular pressure on governments, the independent central bank itself lacks legitimation from voters, thus another democratic discrepancy emerges in European politics. As the overview of new central banking provided in this thesis shows, the European Central Bank may be taking over control to restore the European economy, but true political intervention is postponed - which remains inevitable to stabilise the Eurozone in the long run.

Reference List

Arghyrou, Michael G., and Alexandros Kontonikas. "The EMU sovereign-debt crisis: Fundamentals, expectations and contagion." Journal of International Financial Markets, Institutions and Money 22, no. 4 (2012): 658-677.

Armingeon, Klaus, and Lucio Baccaro. "Political economy of the sovereign debt crisis: the limits of internal devaluation." Industrial Law Journal 41, no. 3 (2012): 254-275.

Bernanke, Ben. Remarks by the Governor Before the National Economists Club, Washington, D.C “Deflation: Making Sure "It" Doesn't Happen Here“. November 21, 2002. Available at: http://www.federalreserve.gov/boarddocs/Speeches/2002/20021121/default.htm

Bernanke, Ben. "Monetary Policy since the Onset of the Crisis." In Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, Wyoming, vol. 31. 2012.

Bernanke, Ben S. "The Effects of the Great Recession on Central Bank Doctrine and Practice. "In Keynote address at the Federal Reserve Bank of Boston 56th Economic Conference “Long Term Effects of the Great Recession,” Boston, October, vol. 1, pp. 8-19. 2011

Bibow, Jörg. "The Euroland crisis and Germany’s euro trilemma." International Review of Applied Economics 27, no. 3 (2013): 360-385.

Blyth, Mark. Austerity: the history of a dangerous idea. Oxford University Press, 2013.

Bohle, Dorothee. "Responsible Government and Capitalism’s Cycles." West European Politics 37, no. 2 (2014): 288-308.

Borio, Claudio. "Central banking post-crisis: What compass for unchartered waters?." In keynote address at the SUERF-National Bank of Poland Conference “Monetary policy after the crisis”, Warsaw, vol. 4. 2011.

Borio, C., & White W. (2003). Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes. BIS Working Papers, No 147.

Bossone, Biagio, Thomas Fazi, and Richard Wood. "Helicopter Money: Today's Best Policy Option." October 4, 2014. Available at: http://wallstreetpit.com/105874-helicopter-money-todays-best-policy-option/

Brancaccio, Emiliano. "Current Account Imbalances, the Eurozone Crisis, and a Proposal for a" European Wage Standard"." International Journal of Political Economy 41, no. 1 (2012): 47-65.

Buiter, Willem, and Ebrahim Rahbari. "The European Central Bank as lender of last resort for sovereigns in the eurozone." JCMS: Journal of Common Market Studies 50, no. s2 (2012)

Buiter, Willem H. "Alice in euroland." JCMS: Journal of Common Market Studies 37, no. 2 (1999): 181-209.

Buiter, Willem H. Helicopter money: irredeemable fiat money and the liquidity trap. No. w10163. National Bureau of Economic Research, 2003.

Buiter, Willem H. "The simple analytics of helicopter money: Why it works-always." Economics 8 (2014).

Bulmer, Simon. "Germany and the Eurozone Crisis: Between Hegemony and Domestic Politics." West European Politics 37, no. 6 (2014): 1244-1263.

Bulmer, Simon, and William E. Paterson. "Germany as the EU's reluctant hegemon? Of economic strength and political constraints." Journal of European Public Policy 20, no. 10 (2013): 1387-1405.

Claeys, Grégory, Alvaro Leandro, and Allison Mandra. "European Central Bank quantitative easing: the detailed manual. Bruegel Policy Contribution Issue 2015/02, March 2015." (2015).

Creutzig, Felix, Jan Christoph Goldschmidt, Paul Lehmann, Eva Schmid, Felix von Blücher, Christian Breyer, Blanca Fernandez et al. "Catching two European birds with one renewable stone: Mitigating climate change and Eurozone crisis by an energy transition." Renewable and Sustainable Energy Reviews 38 (2014): 1015-1028.

De Grauwe, Paul, and Wim Moesen. "Gains for all: a proposal for a common euro bond." Intereconomics 44, no. 3 (2009): 132-135.

De Grauwe, Paul, and Yuemei Ji. "How much fiscal discipline in a monetary union?." Journal of Macroeconomics 39 (2014): 348-360.

De Grauwe, Paul, and Yuemei Ji. “Quantitative easing in the Eurozone: It's possible without fiscal transfers” January 15, 2015. Available at: http://voxeu.org/article/quantitative-easing-eurozone-its-possible-without-fiscal-transfers

De Grauwe, Paul. "Managing a fragile Eurozone." In CESifo Forum, vol. 12, no. 2, pp. 40-45. Ifo Institute for Economic Research at the University of Munich, 2011.

De Grauwe, Paul. "On monetary and political union." In CESifo forum, vol. 4, no. 2006, pp. 1-10. Ifo Institute for Economic Research at the University of Munich, 2006.

Fawley, Brett W., and Christopher J. Neely. "Four stories of quantitative easing." Federal Reserve Bank of St. Louis Review 95, no. January/February 2013 (2013).

Friedman M (1969), “Optimum Quantity of Money”, Aldine Publishing Company. 1969.

Furceri, Davide, and Annabelle Mourougane. "The effect of financial crises on potential output: new empirical evidence from OECD countries." Journal of Macroeconomics 34, no. 3 (2012): 822-832.

Galí, Jordi. "The effects of a money-financed fiscal stimulus." (2014). Available at: http://crei.cat/people/gali/gmoney.pdf

Garicano, Luis, and Rosa M. Lastra. "Towards a new architecture for financial stability: Seven principles." Journal of International Economic Law 13, no. 3 (2010): 597-621.

Gillies, Alexandra. "Giving Money Away? The Politics of Direct Distribution in Resource Rich States." Center for Global Development Working Paper 231 (2010).

Goodhart, Charles Albert Eric. "The changing role of central banks." Financial History Review 18, no. 02 (2011): 135-154.

Grantham, Jeremy. Quotation from Scutt, James, Global: “Quantitative easing is rotating growth rather than accelerating it”, May 24, 2015. Australia Business Insider. Available at: http://www.businessinsider.com.au/charts-global-quantitative-easing-is-rotating-growth-rather-than-accelerating-it-2015-5

Gros, Daniel. "Macroeconomic Imbalances in the Euro Area: Symptom or cause of the crisis?." CEPS Policy brief 266 (2012).

Gros, Daniel, and Matthias Busse. "The Macroeconomic Imbalance Procedure and Germany: When is a Current Account Surplus an ‘Imbalance’?." CEPS Policy Briefs 301 (2013).

Gunning, Jan, and Paul Collier. Policy Towards Commodity Shocks in Developing Countries (EPub). International Monetary Fund, 1996.

Hausken, Kjell, and Mthuli Ncube. Quantitative Easing and its Impact in the US, Japan, the UK and Europe. Springer, 2013.

Hofmann, Boris, and Feng Zhu. "Central bank asset purchases and inflation expectations." BIS Quarterly Review March (2013).

Honohan, Patrick. "The irish banking crisis: regulatory and financial stability policy 2003-2008." Report to the Irish Minister for Finance by the Governor of the Central Bank (Dublin) (2010).

Kapetanios, George, Haroon Mumtaz, Ibrahim Stevens, and Konstantinos Theodoridis. "Assessing the Economy−wide Effects of Quantitative Easing*." The Economic Journal 122, no. 564 (2012): F316-F347.

Karanikolos, Marina, Philipa Mladovsky, Jonathan Cylus, Sarah Thomson, Sanjay Basu, David Stuckler, Johan P. Mackenbach, and Martin McKee. "Financial crisis, austerity, and health in Europe." The Lancet 381, no. 9874 (2013): 1323-1331.

Keynes, John M. Treatise on Money, Volume 2. London: MacMillan, 1930.

Kindleberger, Charles. The World in Depression 1929-1939. Berkeley, Los Angeles, London (1973): University of California Press.

Kriesi, Hanspeter. "The populist challenge." West European Politics 37, no. 2 (2014): 361-378.

Krishnamurthy, Arvind, Stefan Nagel, and Annette Vissing-Jorgensen. ECB policies involving government bond purchases: Impact and channels. Mimeo Northwestern University, University of Michigan, and University of California Berkeley, 2013.

Krishnamurthy, Arvind, and Annette Vissing-Jorgensen. The effects of quantitative easing on interest rates: channels and implications for policy. No. w17555. National Bureau of Economic Research, 2011.

Krugman, Paul. (2010). Why Is Deflation Bad. New York Times, August 2, 2010.

Laffan, Brigid. "Testing Times: The Growing Primacy of Responsibility in the Euro Area." West European Politics 37, no. 2 (2014): 270-287.

Lane, Philip R. "The European sovereign debt crisis." The Journal of Economic Perspectives 26, no. 3 (2012): 49-67.

Mair, Peter. "Bini Smaghi vs. the parties: representative government and institutional constraints." RSCAS EU Working Papers 2011/22, 2011.

McCulley, Paul, and Zoltan Pozsar. "Helicopter Money: or how I stopped worrying and love fiscal-monetary cooperation." Global Society of Fellows 7 (2013).

McCulley, Paul. "The shadow banking system and Herman Minsky's economic journey." (2009): 257-268.

Moss, Todd J. "Oil to cash: fighting the resource curse through cash transfers." Center for Global Development Working Paper 237 (2010).

Moss, Todd J., and Lauren Young. "Saving Ghana from its oil: The case for direct cash distribution." Center for Global Development Working Paper 186 (2009).

OECD Economic Outlook No 96 - November 2014 - OECD Annual Projections. Available at https://stats.oecd.org/index.aspx?queryid=51396

Orphanides, Athanasios. "European Headwind: ECB Policy and Fed Normalization." (2014).

Paterson, William E. "The Reluctant Hegemon? Germany Moves Centre Stage in the European Union*." JCMS: Journal of Common Market Studies 49, no. s1 (2011): 57-75.

Palley, Thomas I. "Lifting the natural resource curse." Foreign Service Journal 80, no. 12 (2003): 54-61.

Putnam, Bluford H. "Essential concepts necessary to consider when evaluating the efficacy of quantitative easing." Review of Financial Economics 22, no. 1 (2013): 1-7.

Reichlin, Lucrezia, Adair Turner, and Michael Woodford. "Helicopter money as a policy option." VoxEU. org, May 20 (2013). Available at: http://www.voxeu.org/article/helicopter-money-policy-option

Rose, Richard. "Responsible party government in a world of interdependence." West European Politics 37, no. 2 (2014): 253-269.

Ruparel, Raoul. "ECB's €1 Trillion QE Will Not Solve Eurozone's Growth And Inflation Problems" January 23, 2015, Forbes Magazine Online. Available at: http://www.forbes.com/fdc/welcome_mjx.shtml

Scharpf, Fritz W. "Monetary union, fiscal crisis and the preemption of democracy." LEQS Paper 36 (2011).

Scharpf, Fritz W. "Political legitimacy in a non-optimal currency area." Democratic Politics in a European Union under Stress (2013).

Sheel, Alok. "Quantitative Easing and the Helicopter Drop." Economic & Political Weekly 50, no. 11 (2015).

Shiller, Robert J. The subprime solution: How today's global financial crisis happened, and what to do about it. Princeton University Press, 2012.

Shiratsuka, Shigenori. "Size and composition of the central bank balance sheet: revisiting Japan's experience of the quantitative easing policy." Monetary and Economic Studies 28 (2010): 79-106.

Soros, George. "The Tragedy of the European Union and How to Resolve It." The New York Review of Books, September 27, 2012. Available at: http://www.nybooks.com/articles/archives/2012/sep/27/tragedy-european-union-and-how- resolve-it/

Teixeira, Conceição Pequito, Emmanouil Tsatsanis, and Ana Maria Belchior. "A 'necessary evil'even during hard times? Public support for political parties in Portugal before and after the bailout (2008 and 2012)." Party Politics (2014).

Vale, Per Halvor. "Central Bank Challenges after the Financial Crisis." Management and Organizational Studies 1, no. 2 (2014)

Wadhwani, Sushil B. "The great stagnation: what can policymakers do?." The Annual Peston Lecture delivered at Queen Mary, University of London on 5th March, 2013. Available at: http://eprints.lse.ac.uk/51531/1/dp1198.pdf

Weinthal, Erika, and Pauline Jones Luong. "Combating the resource curse: An alternative solution to managing mineral wealth." Perspectives on Politics 4, no. 01 (2006): 35-53.

Wood, Richard. "Eurozone Macroeconomic Framework: Reducing Internal and External Imbalances." MPRA Paper 53569 (2014).

Wood, Richard. "The economic crisis: How to stimulate economies without increasing public debt." (2012). Available at: http://www.cepr.org/active/publications/policy_insights/viewpi.php?pino=62

Young, Brigitte, and Willi Semmler. "The European sovereign debt crisis: Is Germany to blame?." German Politics & Society 29, no. 1 (2011): 1-24.