Central Banking and Inequalities: Taking Off the Blinders

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Abstract

What is the relation between monetary policy and inequalities in income and wealth? This question has received insufficient attention, especially in light of the unconventional policies introduced since the 2008 financial crisis. The article analyzes three ways in which the concern central banks show for inequalities in their official statements remains incomplete and underdeveloped. First, central banks tend to care about inequality for instrumental reasons only. When they do assign intrinsic value to containing inequalities, they shy away from trade-offs with the standard objectives of monetary policy that such a position entails. Second, central banks play down the causal impact monetary policy has on inequalities. When they do acknowledge it, they defend their actions by claiming that it is an unintended side effect, that it is temporary, and/or that any alternative policy would fare even worse. The article appeals to the doctrine of double effect to criticize these arguments. Third, even if one accepts that inequalities should be contained and that today's monetary policies exacerbate them, is it both desirable and feasible to make containing inequalities part of the mandate of central banks? The article analyzes and rejects three attempts on the part of central banks to answer this question negatively.

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1 Introduction

The injustice of current income and wealth inequalities is widely recognized. Academic contributions such as Piketty (2014) have fuelled debate on the issue, and reports such as the OECD's (2015) latest on the subject – entitled *In it together – Why less inequality benefits all* – are testimony to the fact that it is moving up the political agenda, too. Inequalities have a variety of determinants, including differential talent, globalization, technological progress, and the institutional set-up of a modern society. The link between these factors and inequality has been subject to a lot of research, with one notable exception.

If you surveyed economists – or anyone else for that matter – about the single most influential economic event of the last decade, many would point to the financial crisis of 2007. One consequence of the events in the wake of the collapse of Lehman Brothers has been to radically increase the relative importance of monetary policy in the macroeconomic toolbox. However, do we know what impact monetary policy has on inequality? The above OECD report does not mention monetary policy once. Arguably, given the significance of monetary policy today, we know nowhere near enough about how it affects inequalities, how sensitive central banks should be to any such effect if it exists, and what relevant policy alternatives might look like.

In one sense, this is not surprising. Central bankers are no experts on questions of inequality. Until recently, this did not pose a problem either, because there was arguably no strong link between conventional monetary policy and inequalities. Today, given the growing weight of central banks in macroeconomic policy, they are increasingly pushed to take a stance on the issue.

This paper argues that their response is unsatisfactory in several ways. We shall highlight three of them, and present our argument in terms of three basic questions. *First, why should we care about inequalities, and how*? We suggest that central bankers' concern with inequality remains limited. For the most part, they tend to care about inequality for instrumental reasons only and, when they do assign intrinsic value to the reduction of inequalities, they shy away from the trade-offs with the standard objectives of monetary policy that such a position entails. *Second, what is the causal impact of monetary policy on inequalities*? We show that central bankers play down both this impact itself and the morally problematic character of it. While they have started to acknowledge that the unconventional policy tools deployed in the wake of the 2007 crisis do exacerbate inequalities, they defend their actions by claiming that this in an unintended side-effect, that it is temporary, and/or that any alternative policy would fare even worse. These rationalizations fail to convince. Third, and building on the previous considerations, *is it both desirable and feasible to ask monetary policy to contain inequalities?* Central bankers deploy a number of arguments to answer both questions negatively. For instance, they claim that the tools of monetary policy are too blunt to address inequalities and that, in any case, this should be the task of fiscal policy. We analyse these arguments and find them wanting.

To underpin these claims, our argument proceeds by confronting what representatives from three major central banks – the US Federal Reserve (henceforth, the Fed), the Bank of England (BoE) and the European Central Bank (ECB) – actually say on these issues with what they should say from a broader, ethical perspective. This juxtaposition will show that today's monetary policy operates under a rather narrow set of blinders when it comes to dealing with inequalities. We hope that our argument can push central bankers, and policy makers in general, to realize that these blinders need to come off.

The last sentence invites one important clarification about our paper[1]. Someone might reasonably object that it seems unfair to hold central bankers accountable on an issue that is not part of their mandate. We have two responses to this concern. First, and most importantly, this paper is interested in a normative evaluation of the practice[2] of central banking as such and, as a consequence, the mandate of central banks itself is up for discussion. Of course, this implies that in some cases where we identify blinders in the way central bankers address inequalities, the blame should be directed at the legislatures who formulate central banks' mandates rather than being laid at the door of central banks themselves. Second, however, concluding from this consideration that we should analyse what political actors have to say on the link between monetary policy and inequalities would be a mistake; partly because politicians rarely say anything on the link at all, but more importantly because knowledge claims about central banking are mostly produced by central bankers themselves (Marcussen 2009).[3] Like for other topics concerned with central banking, the debate on the link between monetary policy and inequality is currently framed by central bankers. This justifies submitting what they have to say on this issue to critical scrutiny, even if sensitivity to inequalities is not part of their formal mandate.

The paper is structured as follows. We first provide a brief introduction to central banking in order to make explicit the understanding of monetary policy on which our argument is premised (section 2). We then explain the methodology employed to distil the positions of central bankers on questions related to inequality (section 3). The three core sections of the paper deal with the three ways in which monetary policy's response to inequalities is unsatisfactory that we introduced above (sections 4 to 6).

2 The Essence of Central Banking

Central banks have been playing an interface role between financial markets and governments since the end of the 19th century. Their autonomy towards these two entities has been fluctuating in time and space following the power asymmetries between finance and governments, the dominant economic paradigms, and their cultural embeddedness (Singleton 2010). If the two main objectives of central banks (price and financial stability) have persisted throughout history, they have been interpreted differently according to the epochs of central banking (Goodhart 2010). Yet, in every institutional configuration, there has been a balance between central banks' level of independence and the extent of the mandate they were granted: the bigger the role they are asked to play, the lower their autonomy towards governments.

Since the beginning of the 1990s, the central banking independence (CBI) template has diffused worldwide. According to the advocates of CBI, granting central banks a high level of independence promotes their attaining crucial societal goals such as price stability. The main theoretical argument underpinning CBI is the "time-inconsistency" problem theorized in New Classical Macroeconomics (Kydland & Prescott 1977; Rogoff 1985). This stream of research claims that the isolation of monetary policy from elected officials strengthens the central bank's "credibility" since independent central bankers do not have incentives, such as electoral motives, for "inflation surprise."[4] In turn, this credibility ensures price stability, because economic agents trust central bankers' announcements and set their behavior accordingly (for a thorough discussion of the political and institutional reasons underpinning the diffusion of CBI, see McNamara 2002). A noteworthy characteristic of how the mandates of central banks were interpreted in the CBI era before the 2007 financial crisis is the centrality given to *price* stability. In this period, central bankers were not monitoring *financial* stability indicators closely. A widespread belief was that price stability, with the help of new financial technologies to manage risk, promoted an adequate level of financial stability (Reinhart and Rogoff 2009).[5]

In practical terms, the conduct of monetary policy comprises three instruments. First, before the era of CBI, central bankers used coercive monetary tools such as reserve requirements (the fraction of their liabilities that commercial banks must keep in cash or as reserves at the central bank). But, since high reserve requirements were believed to impose excessive brakes on the use of liquidity by commercial banks (and thus on economic activity), central bankers came to rely more heavily on two other instruments: open market operations (OMO) and discount windows.

Second, OMOs represented the bulk of monetary policy before the crisis. The central bank conducts an auction to loan a certain amount of liquidity to commercial banks at a certain rate against specified forms of collateral. OMOs used to be held regularly and their maturity was short (usually a week); they were the main instruments of monetary policy. Indeed, the central bank's rate is used to influence the interbank lending rate,[6] which in turn influences the lending rate to private actors and thus the global level of economic activity.

Third, central banks have a direct lending facility. The precise structure and purpose of this tool varies. The Fed's discount window, for instance, acts primarily as a means for emergency liquidity for commercial banks that cannot refinance on the interbank lending market. The ECB's marginal lending facility, in addition to providing emergency liquidity, plays the role of influencing rates in the interbank market. In any case, when a commercial bank borrows money directly from the central bank, it pays a higher interest rate compared to the interbank lending rate and must also provide adequate collateral.[7]

A narrow definition of monetary policy includes the use of the above three instruments and excludes other responsibilities such as financial supervision (Issing et al. 2001). These formal instruments are complemented by meticulously crafted communication patterns towards financial markets (Dincer and Eichengreen 2007, p.6).[8]

Central banks vary in their degree of independence and their policy goals. According to Goodhart (2004), the ECB enjoys the highest degree of independence due to the non-politicized nature of its appointments and the autonomy to interpret the objective of price stability; the Fed's appointments are politicized, and in the case of the BoE the interpretation of price stability is provided by the government. With respect to policy goals, the Fed targets maximum employment in addition to the objective of price stability, which it shares with the two other central banks. Finally, the Fed has always played an important role in financial supervision, whereas the ECB and BoE have only acquired these competences in the aftermath of the crisis. The ECB mandate includes an "enabling clause"[9] in which Eurozone policy makers "may" delegate additional tasks of financial supervision to the ECB. In others words, the ECB power and the extent of its competences may vary significantly without a change in the legal terms of its mandate.

The 2007 financial crisis put the CBI model under pressure. Goodhart (2010) even states that central banking has entered a new era. When the interbank lending market froze because banks did not trust each other anymore,[10] the regular channels of transmission of monetary policy broke down. To solve this liquidity crisis, central bankers implemented extraordinary measures, which in fact aimed at substituting the interbank lending market. In addition to the global lowering of main interest rates to close to 0%, these tools can be divided into two broad classes. First, central bankers tried to revive OMOs by extending drastically the maturity of the offers and the range of adequate collateral. For example, the 2011-2012 ECB Long Term Refinancing Operations offered liquidity with a maturity of three years, which is long by historical standards, at a fixed rate of 1%. Second, central bankers implemented massive buying programs of government debt (quantitative easing programs) in order to promote financial stability and support economic growth. These operations are reflected in the balance sheets of our three central banks (see Figures 1 and 2).

[Figures 1 and 2 around here]

Note, however, that none of these tools are "new." They should rather be considered as "extended open market operations" (Chadha et al. 2012). Indeed, the underlying mechanisms stay: the central bank injects liquidity in the economy in exchange for financial assets. In theory, the exceptional measures should have a neutral impact on the monetary base since they are expected to unwind in the middle and long term. However, they do have a short-term effect since they increase the size of the central banks' balance sheets, and thus their intermediation role in the economy (Borio 2011). As a result of this intensive use of their balance sheets (instead of concentrating on the setting of interest rates),[11] the distributive consequences of their policies also became more salient (Ertürk 2014).

Finally, in the post-crisis era of central banking, central banks have also obtained financial supervision competences from which they had been deprived since the end of the 1990s. In the case of the ECB, the gain of influence has been particularly drastic, since the ECB exerts a direct coercive pressure on Eurozone economic reforms through the conditionality of its financial interventions and its participation in the so-called troïka (Fontan 2013). Yet, these new roles played by central banks since the crisis have not been accompanied by tighter political control on their activities; a problematic situation in the light of the equilibrium of checks and balances in our democracies (Goodhart 2010).

3 Data and Empirical Method

To be able to characterize the recent discourse of central bankers on inequalities, we have constructed a systematic corpus from three major central banks: the Fed, the BoE, and the ECB. Our corpus starts in September 2008 when it became obvious with Lehman Brothers' bankruptcy that a major financial crisis was unfolding. The corpus runs up to early 2015, the extraction of documents having been performed in February 2015.

Among the vast number of documents produced by our three central banks, we have restricted our corpus to the discourse of key members of the decision-making committee regarding monetary policy: the Federal Open Market Committee (FOMC) at the Fed, the Monetary Policy Committee at the BoE and the Governing Council at the ECB. When available, minutes, transcripts, press releases and press conferences for the committees' meetings are included.[12] Furthermore, speeches of all members of the BoE's Monetary Policy Committee have been searched for and the potentially relevant ones have been included in the corpus. For the Fed and the ECB, the federal nature of their monetary unions has been taken into account by restricting the included speeches and testimonies to the ones from members of the Board of Governors at the Fed and members of the Executive Board at the ECB.[13] These members are the official voice of the central banks. We are left with a corpus of 864 documents or more than 3.9 million words (4.5 times the number of words in Shakespeare's complete works[14]).

Central bankers discuss inequalities only rarely. We have used a Boolean search with a list of keywords in order to isolate the potentially relevant excerpts in our massive corpus. Starting with a list of stemmed words, we have iteratively refined this list by parsing through the excerpts to detect relevant expressions that we had not thought of. We stopped this refinement when we reached a point of saturation – adding new keywords returned the same set of excerpts. The final list of stemmed keywords is in Table 1.

[Table 1 around here. Caption: List of stemmed keywords used]

This list gave us 2610 excerpts, many of which were false positives. We manually went through all these excerpts and attributed a specific tag to them when they were relevant to one of our three main questions.[15] Table 2 gives quantitative information on the number of documents with content relevant to each question.[16]

[Table 2 around here. Caption: Number of documents per year in the corpus]

4 Why care about inequalities and how?

4.1 Concepts

We now turn to the substantive analysis of monetary policy and inequalities. In this first section, we will show that while central banks have shown a renewed interest for the importance of inequalities as a socio-economic issue in recent years,[17] their menu of the different ways in which we might care about inequalities remains very limited. In this sense, situating central bank discourse on inequalities in the wider conceptual landscape on inequalities will constitute a first way of removing blinders in the discussion of monetary policy.

In a first step, we will outline the contours of the relevant literature on theories of justice. We will then contrast the discourse of central banks on inequality with the distinctions made in this literature. On this basis, we will conclude that, in order to take seriously the link between the traditional mandate of central banks and questions of inequality, the conceptual toolbox must be richer than the one used by central banks.

For our purposes, it is important to distinguish four dimensions of the normative stance we take on inequality. To begin with, there is the question of why we care about inequality. Do we aim to keep inequalities in check for its own sake, that is, because we believe that a certain constraint on inequality has intrinsic value? Or do we care about inequality for instrumental reasons, that is, because it negatively impacts other social objectives such as for example the functioning of democratic institutions or economic growth? The second dimension concerns the type of social advantage that is relevant for our assessment of justice. For instance, should we care about inequality in well-being, in social primary goods (Rawls 1999), capabilities (Sen 1992), opportunities, or some other relevant domain? Third, what is the scope of the justice claim in question? Do we, for instance, claim that everyone should have equal opportunities or does this requirement only apply to a subgroup of the population? Finally, the normative constraint we will impose on inequalities in the relevant domain can vary. For example and as we shall see in more detail further down, we can apply a criterion of strict equality, of some form of priority to the worst off (Parfit 1995), or other criteria still. Let us look at the four dimensions and their relevance to central banking in turn.

First, as far as the intrinsic *vs.* instrumental value distinction is concerned, caring about inequalities for instrumental reasons clearly represents a conditional as well as limited, and thus weaker, stance on inequalities. This is something that central banks are already required to do under their current mandate. For example, if it turns out that socio-economic inequalities undermine economic growth or financial stability, then containing inequalities is one of the policy-levers that falls within central banks' purview. By contrast, the recent rise of inequalities on the public agenda as well as economists' contributions on the topic such as Piketty (2014) are clearly motivated by the stronger position that the current levels of inequalities are unjust in themselves. While we will see in the next paragraph how one might justify this position, it is clear that attributing an intrinsic value to limiting inequality will result in trade-offs with other social objectives such as price stability, financial stability, or economic growth.[18]

Second, how can one justify the position that certain kinds of inequalities are morally problematic for intrinsic reasons? Answers to this question are usually formulated by appealing to a particular kind of social advantage that is considered salient from an ethical perspective. A consensus has developed among theorists of justice in recent decades that what is relevant for justice is some measure of the means, resources, or capacities of the individual to pursue her life plans rather than the actual welfare level she attains (see e.g. Dworkin 1981a). Some of these measures are more precise and easier to assess than others. For example, inequalities in income or wealth are more straightforward to ascertain than inequalities in opportunities or capabilities.

Third, consider the scope of claims about distributive justice. Egalitarian theories of justice in particular have become more sophisticated than a simple call for equality in outcome. One dominant factor behind this trend has been the idea that responsibility for individual choices can legitimate socio-economic inequalities (see e.g. Dworkin 1981b). As a result, general claims about justice tend to focus on the inadmissibility of certain kinds of inequalities rather than call for outright equality. The notion of equality of opportunity, for instance, should be understood in this way. It implies that people of equal talent should have equal opportunities or, put differently, that one's social background should not have any differential impact on one's life prospects. As we shall see, claims about equality of opportunity are central to some central banks' discourse, notably that of the Fed.

Finally, given a particular type of social advantage, the ethically permissible limit or cap on inequalities in this dimension of social advantage can be more or less stringent. Consider four such constraints, presented in descending order with respect to their demandingness. First, we might demand outright *equality*. As we have seen in the previous paragraph, such a strong egalitarian requirement may only be justifiable in a well-specified domain such as equality of opportunity. Second, we might employ Rawls's difference principle, which, as standardly understood, requires that institutions ensure inequalities in income and wealth maximize the expectations of the least advantaged (Rawls 1999).

Third, *prioritarian* views argue that we should be sensitive to both the size of the cake and the interests of those who receive the smallest slice, but without imposing as strict a constraint as maximin does (Parfit 1995).[19] Given its structure, prioritarianism promises to be particularly useful when it comes to trade-offs between containing inequalities and promoting economic growth. Finally, some contributions to the literature on theories of justice have argued that what counts is not what people have relative to others, but that they have enough. These *sufficientarian* approaches aim to establish a minimum threshold of the currency of justice in question that everyone should attain (e.g. Frankfurt 1987; Casal 2007). That said, they seem to capture only part of the concern with rising economic inequality today.

4.2 Discourse & analysis

How does the official discourse of central banks fit into the conceptual landscape of inequality just outlined, and what does this tell us about the moral commitment of central banks to considerations of social justice? These are the two questions that will preoccupy us in this section. Using the categories introduced in the previous section, we will analyse how the three surveyed central banks formulate their position on inequality.

4.2.1 Instrumental reasons

Unsurprisingly, concern with inequality for instrumental reasons is most widespread among central bankers. We can divide the potentially negative effects of inequality in two categories.

First, rising income and wealth inequalities might be considered problematic if they have a negative impact on economic growth. Representatives from the BoE are most sensitive to this. Andrew Haldane, chief economist of the BoE, asserts that this link exists because of a "myopia effect,"[20] that is the idea that poor people tend to invest less in their future, which harms the prosperity of societies.[21]

At the Fed, positions on the link between inequality and growth vary. Sarah Bloom Raskin – former member of the Board of Governors of the Fed who became Deputy Secretary of the Treasury in March 2014 – is by far the most vocal advocate of the view that inequality can harm growth. Already in

2011, she says: “This inequality is destabilizing and undermines the ability of the economy to grow sustainably and efficiently.”[22] She reiterates the point in two speeches in 2013, and adds that rising inequality “has also contributed to the tepid recovery.”[23] By contrast, Chairpersons of the Fed have been less affirmative. Janet Yellen says, hesitantly:

> “I am not sure we know for sure, but there has been some speculation that trend for so many households of weak labor market income growth did contribute to the troubles in the economy. […] I don't know that we have any hard evidence on that, but that is certainly a hypothesis that has received some attention.”[24]

Finally, Ben Bernanke does affirm a link between inequality and economic growth, but he explicitly focuses his argument on inequality of *opportunity*:

> “If people don't have--if talented people don't have the ability to move up and get a good education and to move into the middle class, that that [sic] is a loss for everyone, not just for those individuals. So I think a society in which there is greater equality of opportunity will be a more productive and efficient society as well.”[25]

As to the ECB, we did not find any discussion of the causal link from inequality to slower growth in the discourse of its officials.

Second, what about the potential impact of inequality on financial stability? Both the BoE and the ECB react to the book *Fault Lines* by Raghuram G. Rajan (2010), who became governor of the Reserve Bank of India in mid-2013. The book argues that rising income inequalities in the United States encouraged politicians to ease credit standards, which led to the subprime crisis. From the BoE, Andrew Haldane endorses this conclusion and, at an event organized by Occupy in October 2012, claims that “[w]e have seen, first, inequality-induced crisis and, latterly, crisis-induced inequality”.[26] Haldane reiterates this view in May 2014.[27] By contrast, Yves Mersch from the ECB acknowledges Rajan’s argument, but refers to another study (Bordo and Meissner 2012) to support his claim that “comparative and historical evidence suggests that there is little relationship between rising inequality and financial crises.”[28] In short, the evidence is at best inconclusive according to ECB officials.

4.2.2 Intrinsic reasons

The Bank of England is clearly the most progressive when it comes to endorsing intrinsic reasons to care about various forms of inequality. Mervyn King, the Bank's governor up to mid-2013, first laments the "blighted" futures of the next generation and then says that a market economy "must show a sense of fairness"[29]. The next governor, Mark Carney, is more specific by emphasizing the intrinsic desirability of three types of equality: "relative equality of outcomes", "equality of opportunity" and "fairness across generations". He refers to the Rawlsian veil of ignorance to justify these egalitarian considerations and, most precisely, to justify the objective of "maximi[zing] the welfare of the least well off."[30]

In sharp contrast, ECB members do not appear committed to the intrinsic desirability of containing different types of inequality. Mario Draghi says that he "can understand the anger of people", especially jobless and poor young people,[31] but when it comes to saying what type of concern ECB members have regarding inequality, Benoît Cœuré, member of the ECB Executive Board, defers to European treaties: "Inequality is a cause for concern for all European institutions, since social cohesion is one of the statutory objectives of the EU."[32] The notion of "social cohesion" is notoriously ambiguous (Chan et al. 2006). Fostering social cohesion might include the goal of limiting various sorts of inequality. Alternatively, it might be that reducing inequalities is relevant to social cohesion only as a means to an end. For instance, preventing a drastic increase in inequalities might be an effective strategy to decrease the probability of an outburst of radical social movements. What is the connection between reducing inequality and cohesion? Cœuré and the other ECB officials leave us with an incomplete and underdeveloped view.

The Fed occupies an intermediate position on this issue. Fed chairpersons clearly state that inequalities of *opportunity* are intrinsically bad.[33] They thereby voice a widespread ideal of justice among Americans: "We want everybody to have opportunities, we want a fair society."[34] As underlined in the previous section, the declared goal of equality of opportunity is to ensure that inequalities in social background do not influence one's life prospects or, in other words, to promote a meritocratic society. This is a substantive moral commitment, and it is important to spell out what adopting this goal entails. It means one has to either limit inequalities in wealth such that they cannot have a corrosive impact on equality of opportunity or, alternatively, one has to insulate education, training, and the attribution of positions of responsibility from differences in wealth altogether by ensuring that more money cannot buy an advantage in these contexts. When the Fed underscores the importance of equality of opportunity, it automatically commits to one of these policies regarding wealth differentials, too. At this stage, it remains an open question whether promoting such policies should be part of the central bank's mandate rather than the exclusive task of fiscal policy. We shall come back to this question in section 6.

Against this background, it is surprising how cautious representatives of the Fed are when it comes to endorsing limits on inequalities with respect to types of social advantage other than opportunities. For example, their statements on limiting income inequality for intrinsic reasons are limited to two scenarios. First, poverty – i.e., having less than decent life conditions – is condemned.[35] We should strive, according to them, to help out people at the low end of the distribution of material outcomes, as long as they are indeed below some threshold for a decent life. Second, American central bankers condemn high unemployment, which is a property of job distribution.[36] Since American central bankers have the explicit mandate to care about unemployment, it is unsurprising that they take the fight against high unemployment as an end in itself. Both of the positions discussed in this paragraph can be qualified as sufficientarian. They merely impose a floor on income inequalities, while remaining silent on the distribution above this minimum threshold.

What conclusions can we draw from the above analysis? Generally speaking, it is worth noting that the BoE has the most progressive stance on questions of inequality, the ECB is least committal when it comes to the importance of containing inequality, and the Fed occupies an intermediate position. This classification is borne out in several ways. First, the only central bank that consistently attributes intrinsic value to containing inequalities is the BoE. The Fed only does so with respect to opportunities, and without acknowledging the consequences that such a moral commitment to equal opportunities entails. Second, while the BoE explicitly addresses the question of what kind of caps on income and wealth inequalities justice requires, the Fed tends to limit itself to sufficientarian considerations. In both case, the ECB does not take a stance at all. We can say therefore, that the ECB as well as to a lesser extent the Fed leave large parts of the conceptual terrain outlined in section 4.1 unexplored. In particular, the possibility of taking a stance on inequalities in income and wealth or of imposing either maximin or prioritarian constraints on inequality has been ignored in the discourse of central banks with the partial exception of the BoE. Yet, even the latter does not draw the logical conclusions from taking a stronger stance on inequality, which leads us to a second and perhaps even more significant conclusion.

To the extent that central banks acknowledge intrinsic reasons for containing inequalities, this raises the further question of how to arbitrate trade-offs between controlling inequality and other social objectives, notably the traditional goals of central banking such as price stability, financial stability and (at least in the US) economic growth. However, none of the central banks we have surveyed take this next step. As indicated in the introduction, we cannot *blame* central bankers for not taking this step, because their mandate does not require them to do so. At the same time, we can conclude that their discourse fails to provide a satisfactory discussion of inequalities. If you believe that containing inequalities is intrinsically important as at least the BoE and the Fed do, then you need to recognize that, as a society, we need to take a stance on their relative importance as well. Even if one thinks that their current limited mandate prevents central banks from taking action on limiting inequalities, this hardly means they do not have the responsibility to reflect on the broader social impact of their actions.

Before we turn, in section 6, to the question of who might have an obligation to do what with respect to inequalities, we need to clarify the empirical link between monetary policy and inequalities.

5 What are the distributive effects of central bank policies?

5.1 Concepts

Since 2008, officials from our three central banks have taken stances on the possible distributive effects of their policies. They did so in reaction to new research arguing that monetary policy has distributive effects[37] and to a renewed public sensitivity for inequalities – the slogan 'We are the 99%' becoming, for example, a rallying cry with the Occupy movement. In this section, we analyse the causal link from monetary policy to inequality. This issue is related to the justifiability of actions: Can the central bankers' policies be justified given these effects? To address these questions, we need some conceptual preliminaries about causal relations. We also need to discuss the principle of double effect, which is a potential argument to justify monetary policies even if they have distributive effects.

Causal relations are asymmetric: the influence flows from cause to effect. We discussed in the previous section causal beliefs where the influence is thought to flow from inequalities to other variables (e.g., financial stability). In this section, inequalities stand as the purported effects, but we should carry over from the previous section the point that there are various types of inequalities.

The purported causes in this section are central bank policies. A distinction must be made between the set of all actions a central bank can perform under its mandate and the actions that directly pertain to monetary policy (see section 2).[38] Prior to the 2007 financial crisis, the OMOs of central bankers were more limited in various respects than what bankers have been doing since then. The extended set of policies after 2007 might generate novel distributive effects. When we discuss the distributive effects of monetary policy, we must consequently be specific about the relevant policy set.

An alleged causal relation between monetary policy and inequality could have a host of properties. The following three properties come up in the central bankers' discourse: strength, permanence and stability.[39] First, the response of an effect to the cause can be of varying strength – e.g., a drug might help patients recover more or less frequently or rapidly. Second, the effect can be temporary or permanent – e.g., gently blowing on water creates temporary ripples, doing the same on a sand pile generates permanent displacement. Third, a causal relation can be more or less stable. For an unstable relation, a given effect will be generated only if the strength of the cause and the background conditions are just right – the flap of a butterfly's wings *can* generate a hurricane, but only in exceedingly specific conditions.

The last conceptual element we need is the principle of double effect. This principle, dating back to Thomas Aquinas, attempts to systematize our intuitions about the permissibility of actions that bring about some desired goal together with generating unappealing side effects (McIntyre 2014). The principle has various formulations. We focus on the three conditions that are directly relevant to our analysis: non-intentionality, proportionality and lack of known alternatives.[40] First, the unappealing side effect should be unintended – e.g., causing an injury to a bystander should not be a reason why one attempts to save a drowning child. Second, the proportionality condition requires that the value of the intended effect outweigh the harm of the unintended effect – e.g., one cannot justifiably kill a child by attempting to prevent a bruise to someone else. Furthermore, the situation must be such that there is no known alternative course of action that would produce the desired effect without comparable harm – e.g., the injury to the bystander is unjustified if the child can be as effectively saved by other means.

5.2 Discourse & analysis

In this part, we report and analyse central bankers' discourse on the distributive effects of their policies by looking at this discourse through the lens of the principle of double effect. We distinguish what central bankers say on the effects of their most recent actions – i.e., the post-2007 policies – from what they say about the effects of their pre-2007 policies. The principle of double effect helps us identify a set of blinders in central bank discourse. In addition, the fact that their discourse identifies the post-

2007 policies with 'exceptional actions' and the previous policies with 'normal actions' produces another important blinder that we discuss at the end of this section.

5.2.1 The pre-2007 policies

Our corpus does not include documents prior to mid-2008. Yet, central bankers discuss, between 2008 and 2015, the likely distributive effects of their policies *prior to* this period. Three characteristics of this discourse stand out.

First, central bankers accept that even their restricted set of pre-2007 policies had distributive effects. BoE officials are particularly explicit. David Miles asserts:

> [A]ny monetary policy action will have some distributional impacts. But if monetary policy actions could be vetoed so long as someone was made worse off then there could be no monetary policy.[41]

Note that this claim is meant to apply to *outcomes* in the distribution of wealth and income.

Second, is it not troubling that monetary policies generate all these effects that do not figure in central banks' mandates? Central bankers reply (second characteristic) that distributive effects are unintended consequences of aiming at the goals enshrined in their mandates.[42] Benoît Coeuré from the ECB combines the first two characteristics compactly by emphasizing price stability as the only goal of the ECB:

> [Central banks] should refrain from engaging in income redistribution, which should be sanctioned by parliaments. This does not imply that monetary policy actions do not have distributive consequences – in fact, they always have. But these are the side-effects of a strategy that aims to ensure price stability, which is by essence neutral as regards income distribution.[43]

Other central bankers place the same emphasis on the unintended character of the distributive effects. For instance, Adam Posen from the BoE claims: "What matters is that the committee is pursuing a policy that is not clearly motivated or traced to a distributive effect as a goal"[44].

From a perspective narrowly focusing on the existing mandates of central banks, this point appears sufficient to justify monetary policy in the face of distributive effects: central bankers must aim at their legitimate goals and should not add concerns – such as distributive effects – unless being explicitly told to do so. In fact, we will see in section 6 where we discuss issues specific to formal mandates that, even under existing mandates, the situation is not so simple because there is some room for considerations of inequalities in existing mandates. But more importantly, as stated in the introduction, we adopt in this article a broader perspective that considers banks' mandates to be a variable, not a parameter. In the current section, we are assessing what to say about the distributive effects of monetary policy from this broader perspective.

From this angle, the unintended character of the effects is only the beginning of a justification. Consideration of the principle of double effect leads us to ask further questions. What if central bankers could attain their intended goal with a policy that has less unwelcome distributive effects (presence of alternatives)? Or what if the distributive effects are dire (potential failure of the proportionality condition)? Would these effects be socially acceptable on the sole basis of being unintended?

The third and last characteristic of the discourse about the distributive effects of the pre-2007 policies is an attitude of neglect for these questions. This attitude is accompanied by a general belief that the distributive effects are either temporary or unstable. Ben Bernanke from the Fed emphasizes, together with Ben Broadbent from the BoE[45] and Benoît Coeuré from the ECB[46], that the effects are temporary:

> It is true that in the short run, some of the tools that we have involve changing asset prices, so higher stock prices and things of that sort, but we can't affect those things in the long run. It is only a short-run transmission mechanism that is involved there.[47]

From the ECB, Yves Mersch focuses on the various mechanisms linking monetary policy to inequality (based on the work of Coibion et al. 2012) and concludes that the distributive effects are unstable: “There is no clear evidence whether standard monetary policy has a dampening or intensifying effect on economic inequality."[48] The general point of central bankers seems to be that the effects are benign and that they need not be a source of great concern.

In short, all central bankers who explicitly take a stance on the issue of the possible distributive effects of their pre-2007 actions accept that they exist. However, they maintain that these effects are benign and unintended. For them, discussions over distributive effects distract us from the primary goods delivered by pre-2007 monetary policy – mainly, price stability.[49]

5.2.2 The post-2007 policies

With the 2007 financial crisis, central bankers modified their policy set. They most strikingly started buying unprecedented amounts of assets, a change clearly visible in Figures 1 and 2. What are the distributive effects, if any, of these novel policies?

The answer of central bankers to this question is remarkably similar to their position on the distributive effects of the pre-2007 policies. Again, the justification can be understood through the lens of the principle of double effect. ECB officials emphasize that the distributive effects of unconventional monetary policy are "unintended consequences"[50], "collateral effects"[51] or "side-effects"[52]; and Haldane from the BoE stresses that this policy "was taken with the best of intentions"[53]. Furthermore, the idea that the effects are temporary, that they will vanish when the policy changes, is still put forward.

Although these points reiterate positions taken by central bankers with respect to the pre-2007 policies, there are novelties. Most strikingly, central bankers almost uniformly recognize that the distributive effects of unconventional monetary policy are *not* mild. The main mechanism identified is that the high level of asset purchases pushes up the price of assets, which are disproportionally held by the richest households. Carney from the BoE says: "the distributional consequences of the response to the financial crisis have been significant."[54] Thomas Hoenig from the Fed adds: "the longer it continues, the more dramatic the redistribution of wealth."[55] The only partial dissent comes from Yves Mersch from the ECB who was not ready in late 2014 to grant the importance of the phenomenon: “Non-conventional monetary policy […], in particular large scale asset purchases, seem to widen income inequality, although this is challenging to quantify.”[56]

If we accept that the distributive effects of post-2007 monetary policies are important, it is *prima facie* harder to justify these actions on the basis of the principle of double effect. Everything else being equal, the more severe the unintended effects, the less likely it is that the proportionality condition is satisfied. Central bankers offer two reasons why, since many things are not equal, their actions are justified. First, the stakes being high, it has allegedly been a matter of saving the global economy from collapse: “Extraordinary times heralded truly extraordinary measures.”[57] In terms of the principle of double effect, the point here is that since the importance of the *intended* goal grew, the severity of the *unintended* effects can thus grow proportionally: “[A] central bank with a clear mandate to safeguard price stability needs to act forcefully when push comes to shove. These distributional side-effects then need to be tolerated.”[58] Second, central bankers stress that the post-2007 policies will not stay with us for long, that we will revert to the pre-2007 policies soon. Carney from the BoE talks about “extreme circumstances, such as in the wake of a financial crisis”[59], and his colleague Haldane maintains that “extra-ordinary monetary measures will of course not last forever.”[60] And all central bankers have words such as “exceptional” on their lips. In short, the justification for the acknowledged distributive effects of the post-2007 actions is that we have to accept them as the unintended consequences of fighting a *great* and *momentary* threat.

It must be granted that the threat is great: a general credit freeze could bring the world economy to its knees. Furthermore, monetary policy did avert this scenario. Yet, the central bankers' justification for their post-2007 actions displays important blinders if we take it, as we should, as a contribution to a societal debate about the future of monetary policy. In the remainder of this section, we will first address two blinders related to the lack of consideration of alternative courses of action: one is associated to an unjustified ‘there is no alternative’ [TINA] argument, the other comes to the fore when we consider dynamic duties. Third and finally, we will analyse another blinder generated by the framing of the situation in terms of extraordinary times.

First, for central bankers' monetary policies to be justified by the principle of double effect, it is not sufficient to weigh the intended benefits of the policies (e.g., maintaining price stability and avoiding a collapse of the global financial system) against their unintended costs (e.g., heightening some inequalities), but one must also assess whether alternative course of actions would secure the benefits without comparable costs. Central bankers did not explicitly make such an assessment when they improvised a solution to the financial crisis.[61] The TINA argument lacks a proper justification if the decision was taken without seeking alternatives with different distributive consequences.

In addition, central bankers entered the crisis with, by historical standards, a narrow understanding of their legitimate policy set, a fact that can be explained by the adoption of the central banking independence template (CBI, see section 2). If we look back in history, Adam Posen from the BoE reminds us that "central banks have engaged in extended periods of administrative guidance, of doing very active directed lending in particular sectors, and especially of engaging in market operations on financial assets other than government securities."[62] In contrast, central bankers surveyed only the immediate neighbourhood of their pre-2007 policy set when they were searching for a response to the financial crisis. Their actions have been innovative, for instance when the Fed decided late in 2008 to buy mortgage-backed securities in addition to government securities.[63] Yet, there is no trace of discussions of other potentially effective policies that would have strayed further away from the pre-2007 policies, but that promised quite different distributive consequences. We will come back to these possible actions, such as helicopter money, in section 6.

In the turbulent times immediately following Lehman Brothers' bankruptcy, one might understand that central bankers' temporal horizon was too restricted to devise credible policies that departed more significantly from their established policy set. As we move forward in time, not considering alternative actions is disappointing and can be criticised. Seven years after the turmoil, time constraints are less relevant as a justificatory factor. Furthermore, there might be more relevant alternatives today given that systemic constraints are different – e.g., we do not face to the same degree the difficult task of appeasing overanxious financial markets facing unprecedented events.

What we have said so far establishes that central bankers have been walking with blinders by not systematically surveying alternative monetary policies that, upon closer scrutiny, might be judged to both be effective with respect to the standard goals of financial and price stability and have more advantageous distributive effects.

Let us now imagine, and this brings us to our second argument, that central bankers' appeal to TINA was in fact justified. In other words, after an extensive survey of what could be an enlarged toolbox, the conclusion was that there is no serious alternative to the actual policies enacted in response to the financial crisis, no alternative that would be as effective to stabilize the financial system while having less negative distributive effects. If this was the case, does this get central bankers off the hook? The answer is no if we take into account the concept of dynamic duties (Gilabert 2012, pp. 137-38). If a feasibility constraint prevents us from discharging a duty X at time t_1, we may still have a duty Y to do something that will increase our likelihood of being able to discharge duty X at time t_2. In our context, the duty X that governments might want to impose on central bankers is the duty to avoid or at least minimize inegalitarian consequences of monetary policy. Even if we grant that this was unfeasible in 2008, central bankers would then have a dynamic duty Y to ensure that discharging duty X will be possible in future. What would be the content of duty Y? Central banks should do what they can to reduce the likelihood of future financial crises. While some measures to this effect have indeed been taken, many observers are struck by how little the regulatory framework of financial markets has changed since 2008 (Helleiner 2014). Naked short selling has not been banned, commercial banks and investment banks have not been separated, the issue of too big to fail has not been thoroughly addressed, and so on. Central banks are certainly not uniquely responsible for all of these failures, but it can certainly be argued that they could have done more to ensure that, when the next crisis strikes, we will not again have to appeal to TINA, and take deeply inegalitarian countermeasures. As a society, we need to take this dynamic duty of central banks more seriously.

The natural reply of central bankers to this argument will once again be to point to their mandate, insist that limiting inequalities is not their job, and suggest we direct our criticism at the governments that write the mandates instead. While this response is plausible from a narrow perspective that takes mandates as given, it is unsatisfactory when put in a broader social context. If central bankers agree that the impact of their policy on inequalities is problematic (section 4), should they not suggest to governments that a reformulation of their mandate might be called for? No such contribution to the debate has come from central banks. Instead, they keep insisting on the idea that dealing with inequalities is a task for governments only. It is one thing to support the idea of a division of labour in policy making, but it is another not to question this division when it reaches its limits.

Third and finally, we now turn to the other frame that blinds central bankers with respect to the distributive effects of their policies: the frame associating the post-2007 policies to "exceptional times" and the pre-2007 actions to "normal times."[64] As we have seen, central bankers emphasize since the beginning of their reaction to the financial crisis that their novel policies will not last, that they will soon revert to their previous policy set. The anxious desire to return to business as usual was with central bankers even before the situation turned really ugly. In the transcript of the June 2008 meeting of the Federal Open Market Committee, we find a fascinating exchange over the strategy to adopt with respect to the emergency lending programs that had been put in place three months before due to rising liquidity problems.[65] Ben Bernanke states:

> [I]f we make the announcements that we're going to at least provisionally extend these facilities, I think it's important that we do so in the context of explaining that we have an exit strategy [...] that we're moving

> forward in a way that will over time make this unnecessary not only in the short term but in the long term as well.[66]

Already at that time we have the president of the Federal Reserve Bank of Richmond, Jeffrey Lacker, voicing that “the exit strategy makes [him] nervous”, that “it is just really hard to see how to put that genie back in the bottle”, but that they “ought to strive to make [these measures] somehow be viewed as unusual as possible.”[67] Six months later, at the end of 2008, the total value of assets held by the Federal Reserve had been multiplied by 2.5 (see Figure 1).

Seven years later, an exit from “unusual” measures has not yet materialized. In early 2015, the total value of assets held by the Federal Reserve was 5 times its early-2008 level. The ratio was 4 for the Bank of England. It was only 1.85 for the European Central Bank, down from a ratio of 2.4 in mid-2012. However, the European Central Bank has started its quantitative easing program in March 2015 with the explicit goal of buying €60 billion of assets per month for at least 19 months (European Central Bank 2015). This program should bring the ratio to 2.6 by September 2016. Furthermore, in March 2016, Draghi announced an extension of the length of the program (until March 2017), the size of the purchases (€80 billion of assets per month) and the list of purchasable assets (to include private sector assets).[68] These measures will push up the ratio even more.

With the persistence of the “exceptional,” the hypothesis that the post-2007 policies are here to stay should be given more thought. Japan is the proof that they *can* stay – its first quantitative easing program dates back to March 2001 and the value of its total assets have kept growing since then, reaching astronomic amounts with the launch of an even more aggressive policy in October 2013 (Fujioka and Lanman 2015). Why be confident that other major economies will fare radically differently? One does not need to be profoundly pessimist to find plausibility in the hypothesis that developed economies have entered an era of “low-growth capitalism” and that, as a consequence, our three central banks are unlikely to face favourable economic circumstances allowing them to substantially shrink their balance sheets (Ertürk 2014; IMF 2015, chapter 3).[69] As soon as hypotheses similar to this one are on the table, the distributive effects of the post-2007 policies need to be considered in a new light. We cannot justify serious side effects of extraordinary measures by relying on the existence of a calm after-crisis period during which these side effects will be corrected. The side effects, together with the "exceptional" policies, might be here to stay.

6. Who should deal with the distributive effects of monetary policy?

6.1 Concepts

Suppose one accepts that containing inequalities is intrinsically desirable and that monetary policy fuels inequalities, should central banks be asked to take into account distributive effects or should correcting for these effects better be left to other authorities? An answer to this question needs to take into account intertwined issues of desirability and of feasibility.

When the state delegates an objective to an agent – here, the central bank – the goal is to attain this objective more effectively. But the principal-agent dynamics implied by delegation involves the risk of agency drift, or an agent implementing policies that depart from the goals of the principal (Kassim and Menon 2003). To lower this risk, states (like any other principal) set mechanisms to control the behaviour of the agent. If effective, these control mechanisms, by making the attainment of the objective by the agent more likely, make delegation more attractive.

There is an inverse relationship between the scope of a central bank's activities and its degree of autonomy: the wider the scope, the more limited the autonomy. Especially when the delegation involves policy issues that are usually subject to democratic control, an enhanced mandate calls for closer oversight by the principal. Moreover, remember from section 2 that the agent often has some leeway to stretch the interpretation of the mandate set by the principal without challenging the legal terms of the mandate. In other words, the effective mandate might change even though the formal mandate has remained the same.

Even if the stringency of control mechanisms can be adjusted as one modifies an agent's mandate, there are reasons why the extension of a mandate might still not be desirable. First, the agent might be a lot worse at attaining her original objectives because she will face new trade-offs among her more complex set of objectives. Second, it might be infeasible for the agent to attain the new objectives because she does not have the means to do so. Third, although the agent might be able to fulfil the new mandate, another agent could be even better at it. Sections 6.2.1 through 6.2.3 below will speak to these issues in turn.

We can illustrate the interplay of these three reasons with the debate that took place in the CBI era over what a central bank's mandate should be. On the one hand, we have defenders of a narrow mandate, who have been asking central banks to exclusively focus on the goal of price stability (Issing et al. 2001, 68). On the other hand, we have proponents of a broad mandate, who add the goals of financial stability and, sometimes, of job creation.

One argument for the narrow mandate states that price stability would be impaired by the pursuit of other objectives such as financial stability because of trade-offs between the two objectives (first type of reason). This point can be grasped with an example. Imagine that in the pursuit of her financial supervision tasks, a central banker is informed about the fragility of a systemically important financial institution (SIFI). At the same time, the economy is well into a period of recovery and a rise of interest rates is needed to counteract inflationary pressures. Yet, since this interest rise might endanger the position of the SIFI, the central banker will be tempted to delay the monetary policy shift. She will trade-off more financial stability against less price stability. A second argument in favour of the narrow mandate relates to feasibility concerns (second type of reason). Central bankers might not possess enough information and expertise for reaching other objectives, such as a high level of employment.

Defenders of a wide mandate retort that pursuing financial stability might in fact improve the attainment of price stability instead of compromising it (first type of reason). Once involved in financial supervision, the central bank collects more and better information on financial assets. This information can help it prevent large asset price movements, which, in turn, helps to smooth the business cycle and promote price stability. Advocates of a wide mandate further claim that central banks do have effective means to promote financial stability since they are, by their very nature, involved in financial intermediation (second type of reason). Finally, Goodhart (2010) goes even further by invoking the third type of reason: if oversight of financial stability is given to an entity other than the central bank, the objective is less likely to be met. Since the central bank is the only institution with the capacity to create liquidity, it is in a unique position to promote financial stability.

As a matter of fact, the post-2007 situation corresponds to a wide mandate world in which central banks' competences do extend to financial stability. We want to move the debate to the consideration of a further widening of the mandate: should the mandate of central banks include a reference to economic inequalities, too? We will see that central bankers maintain that such an extension is neither desirable nor feasible. We will argue that the justification for their position is unsatisfactory.

6.2 Discourse & analysis

When asked who should deal with the distributive consequences of their monetary policy, central bankers first state that their *mandates* highly constrain them in what they can do on this issue. Second, they argue that, in any case, the bluntness of their policy *tools* make them inadequate to address inequalities. The next two sections will dispel these *feasibility* concerns. After having established that central banks *could* be asked to aim at lowering inequalities, we will argue in the third section that there are solid reasons why governments *should* ask them to have this objective. As argued in section 5, if governments indeed have good reasons to give central banks a different mandate, then it seems unacceptable for central bankers to lobby to preserve the division of institutional labour as it exists today. We do not go as far as concluding that asking central bankers to aim at limiting inequalities is therefore *desirable*. Convincingly arguing for this conclusion requires that we address in a comprehensive fashion the points for *and against* this request, which would require a full-length article in itself. We more modestly contribute to the debate by offering reasons for a moderate extension of the responsibilities of central bankers. These reasons are, to our knowledge, novel in this context.

6.2.1 Economic inequalities and the mandate of central banks

The three central banks analysed in this paper use their mandates to argue that they cannot do much to fight inequalities. We start with the Fed, which has the widest mandate and thus the most complex argument on this topic.

Fed officials claim that their standard policies help to fight inequality, but only to a limited extent. Bernanke states:

> With respect to inequality, I think the best way to address inequality is to create jobs. It gives people opportunities. It gives people a chance to earn income, gain experience, and to ultimately earn more. But that's an indirect approach; that's really the only way the Fed can address inequality per se.[70]

Unfortunately, job creation, an explicit goal of the Fed, does not automatically reduce various types of inequality. If the jobs created come with low wages or are part-time, we might end up with more working poor. For example, Germany has experienced a constantly falling unemployment since the crisis, yet poverty has reached its highest level in 25 years in February 2015 (Somaskanda 2015). Raskin recognizes that the Fed's policies "have little effect on the types of jobs that are created" and thus concludes that "while monetary policy can help, it does not address all of the challenges that low- and moderate-income workers are confronting."[71] While emphasizing that the Fed cannot do much, Bernanke also gestures toward a sort of trickle-down effect: "We can only hope to address the overall state of the labor market and hope that a rising tide will lift all ships, so to speak."[72] This hope should obviously be moderate. The growth dynamics from the 1980s to the financial crisis have shown that we can have positive growth rates, declining unemployment rates, yet rising inequalities. The inverse relationship between growth and inequalities is thus conditional: it does not hold if the wrong institutional conditions are in place (Aghion et al. 1999). And the most recent evidence offers even further cause for pessimism: Saez (2013) documents that the benefits of the little growth the US has experienced since the crisis has been captured by a smaller proportion of households than after previous economic crises.

In sum, the Fed's current monetary actions do not do much to lower inequalities. Could the Fed do more? Here, Fed officials join their colleagues from the BoE and the ECB in saying that the bulk of the work should not fall on monetary policy: "these long-run distributional trends […] can only be addressed really by Congress and by the Administration. And it's up to them, I think, to take those steps."[73] For central bankers, fighting inequalities "is not the mandate of the ECB, or of any modern central bank."[74]

To respond to this challenge, we distinguish three ways in which one might ask a central bank to act on inequalities. First, we might require that distributive concerns act as tie-breakers, i.e., if the central bank can choose between two policies that perform equally well with respect to its main objective(s) but one has less inegalitarian consequences, then it should choose that one. This mild demand should not require a change in the official mandate of any of our three central banks because, by stipulation, it would not impact the pursuit of their standard objectives. Let us focus on the central bank that has the narrowest mandate, namely the ECB. Perhaps surprisingly, its mandate already contains such a tie-breaker condition. Article 127 (1) of the Treaty on the Functioning of the European Union (the Lisbon Treaty) states that "[w]ithout prejudice to the objective of price stability, the ESCB [European System of Central Banks] shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the

Treaty on European Union," where the latter explicitly mentions social justice as one such objective. The weight given to social objectives by this clause is small because of the tie-breaker qualifier "without prejudice to the objective of price stability." But central bankers have not even allowed distributive concerns to play this minimal role, since they have not surveyed the set of possible policies to find alternatives that might do as well with respect to their main objectives, but do better with respect to inequalities[75].

Second, while the mandates of central banks today do not contain references to inequalities beyond the level identified in the previous paragraph, this can be changed. As we emphasised in the introduction, this paper aims to provide a normative evaluation of the practice of central banking as such and, hence, existing mandates should be viewed as variable rather than as a parameter of our analysis. Now, there is a radical and a moderate way in which central bank mandates might be modified to include reference to inequalities. The radical proposal is to add a *permanent* objective of curbing inequalities in the mandate of central banks. Like in all cases of a mandate containing multiple objectives, a formula to weigh the at times conflicting objectives would be necessary. Depending on how much weight is given to distributive concerns, this change of the mandate might have little effect on the actual monetary policies or it might turn central bankers into egalitarian activists. This change in the mandate would have to be accompanied by tighter controls on central banks – unelected central bankers should not be left to decide on the acceptable level of inequalities. Such controls need to be partly *ex ante* – e.g., governments could set quantitative targets on some measures of inequalities (say, a value for the Gini index of wealth); at least at first, firm *ex post* controls – monitoring of activities and imposition of sanctions – would also be necessary to allow for adjusting the formula while we improve our knowledge of the distributive consequences of monetary policies.[76]

We have serious reservations concerning this radical proposal. The available controls might never be sufficient to constantly trust unelected officials with the deeply political objective of containing inequalities. Moreover, central bankers with this extended mandate might do far worse on their original objectives because they will more frequently face trade-offs. We are thus inclined to prefer a less radical departure from the status quo. The moderate proposal is that central banks should factor in distributive concerns only in specific circumstances, namely when they envisage the adoption of extraordinary policy instruments. A metric to distinguish these instruments from more benign ones could be the extent of the impact of the instrument on the bank's balance sheets. For instance, a policy of quantitative easing generates a large increase in a bank's assets compared to the benchmark of no quantitative easing. It would thus qualify as an extraordinary instrument that cannot be used by central bankers unless they weigh the distributive consequences of this policy against its intended effects. By contrast, once central bankers are back to a situation where they influence interest rates through short term open market operations – a comparatively benign instrument – they will be required to base their policy choice on their main objectives only, with no regard to inequalities. Much would need to be specified to turn this sketch of a moderate proposal into an implementable mandate.[77] We do not aim here at this fully-specified proposal. What must be noted is that such a moderate proposal would be less liable to the standard criticisms against a mandate extension to include distributive concerns.

In sum, the fact that containing inequalities does not currently figure in the list of explicit objectives of central banks alongside price and financial stability should not blind us to the real possibility of requiring them to be actively concerned about inequalities. To begin with, distributive concerns can be factored in as tie-breakers under the current mandates. Furthermore, mandates can be extended in moderate or radical ways, and the degree of independence can be revised accordingly to ensure that central bankers aim appropriately at the objectives that we set for them.

6.2.2 Do central banks have the tools to address inequality?

When central bankers talk about possible solutions to the problem of growing inequalities, their propositions do not fall within the realm of monetary policy. The most comprehensive proposal comes from the BoE, which acknowledges that it could play a role in delivering "a more socially useful banking system."[78] The Fed focuses on the need to improve workers' education to cope with technological changes[79] and highlights its financial literacy programs.[80] Finally, the ECB promotes the flexibility of labour markets as a mean to fight inequalities (and does so by invoking Rawls on fairness).[81]

Why do central bankers steer clear of proposals that would use monetary policy itself to address growing inequalities? Beyond their point on the constraints imposed by their mandate, they also argue that their policy tools are too blunt for the task.[82] In other words, the means at their disposal make the attainment of this potential goal infeasible. Interest rate setting through OMOs or the discount window, so the argument goes, are designed to aim at aggregate outcomes and cannot be fine-tuned to target subgroups of the population.[83]

Suppose the goal of containing inequalities was recognised as a legitimate concern of central bankers in one of the ways set out in the previous section. At that point, the natural next question is to ask whether there are monetary policies that are better capable of answering this concern than those central bankers have in their toolkit today. In this section, we will discuss two such policy alternatives to show that central bank thinking on this issue once again operates under a narrow set of blinders.

Note that, since the crisis, all central banks have been relying on novel measures and on an extensive use of their balance sheets (cf. section 2). By doing so, they have been fine-tuning their instruments to react to *specific* market segments subject to perturbations. Since monetary tools are not too blunt to revive the European securitisation market and the American housing market, why would they be too blunt to show sensitivity to economic inequalities?

How could monetary policy be modified to tackle this goal? Here is a first possibility. Consider the fact that the list of eligible partners[84] and the type of bonds accepted as counterparts of monetary policy have been significantly extended since the crisis. Against this background, one can imagine a different form of QE, which could reach the same objectives (e.g. support economic growth and avoid deflation) while having less inegalitarian effects. In the European case, the ECB could buy bonds from the European Investment Bank (EIB), which would develop programs aimed at supporting growth and diminishing inequalities (cheap housing, infrastructure, and life-long learning programs in least-favoured areas)[85]. As the EIB is already a counterparty of ECB operations and the ECB is already manipulating its balance sheet, this institutional option would be feasible (Blyth and Lonergan 2014).

Second, the inegalitarian effects of monetary tools are strongly linked to the rise of financial asset prices triggered by bond buying programs (see section 5). One policy alternative could be to bypass the banking and financial system and deliver the same amount of liquidity directly to households, potentially by giving priority to low-income households. The option of helicopter money has been put forward for the first time by Milton Friedman (2005 [1969]), and is once again gaining traction in academic circles (Blyth and Lonergan 2014) as well as amongst former high-level policymakers (Turner 2014; Buiter 2014). Helicopter money consists in the creation of new money by the central bank, which it gives directly to households and individual businesses without any counterparts (unlike open market operations). Friedman argues that if everybody is convinced that this is a unique event, the helicopter drop will stimulate consumption[86]. The creation of new money can also directly finance a tax cut (or an increase of transfer payments) aimed at, say, a certain percentage of the poorest households. One could even imagine a distribution of checks to the least well-off that have to be spent before a certain time in order to make sure that the newly created money is directly used for consumption.

Central bankers tend to be worried by the negative consequences that helicopter money might have. In this context, it is worth noting that there are only two fundamental differences between helicopter drops and QE programs as they exist now. First, there is no banking intermediation in the case of helicopter money, which makes its distributive consequences more predictable, in addition to being more egalitarian. Second, in theory, since the QE programs are meant to be reversible and temporary (through the selling-back of the bought bonds), they are supposed to have no inflationary effects. However, if we accept that the reversibility of QE programs is highly questionable (cf. section 5), the helicopter option might be broadly similar to present QE programs in terms of its long-term inflationary effects, while faring better in terms of containing inequalities. The helicopter option would thus be preferable to QE programs even if central banks were only asked to use distributive concerns as tie breakers (i.e., the minimal requirement above). If the assumption about the non-reversibility of QE programs is proved wrong, the helicopter option would indeed be more inflationary than the QE. Yet, to some extent, this might well be a price worth paying for its less inegalitarian impact. There is no issue of feasibility here provided the mandate of the central bank were enlarged according to the moderate or the more radical proposals formulated above.

We consider that central bankers' unwillingness to seriously consider either financing public investments programs or a helicopter drop[87] presents an obstacle to a sound debate on what monetary policy can do with respect to inequalities. Invoking current legal arrangements cannot be an excuse to exclude these options from the political debate since legal arrangements are not immutable. Furthermore, comparing the distributive consequences of QE to inaction is insufficient to justify QE.[88] Instead, the comparison needs to be extended to policy alternatives (see section 5.2.2), such as infrastructure bonds or helicopter money, that are not too blunt for the task of targeting distributive outcomes.

6.2.3 Why monetary policy rather than fiscal policy?

There is one last arrow in central bankers' quiver that we need to look at. Consider the following statement by Peter Praet from the ECB, which is representative of central bankers' position on who should be in charge of addressing inequalities: "Governments have to take care of redistributive effects."[89] The basic idea here is that, even if central banks *could* play a role in reducing inequalities as the two previous sections have shown, this is not something we *should* ask them to do. Instead, so the argument runs, this has been and should remain the job of the tax-and-transfer policy of central government. This idea is deeply entrenched among experts on monetary policy, so entrenched that its proponents rarely feel the need to spell out the reasons for what they find so obvious. In this section, we offer two reasons against this strict division of labor between fiscal and monetary policies. Our goal is to show that the reasonableness of the strict division is not obvious, but we do not go as far as maintaining that we therefore establish the desirability of transforming central banks into a subdivision of finance ministries.

Our first argument is conditional. If and when the redistributive capacity of the state is reduced, then monetary policy should step up to do a share of the work toward containing inequalities. The second argument puts forward a more fundamental point. Given that tax and transfer policies always involves losses in efficiency in the sense that economic agents change their behaviour in response to higher taxation, it is preferable, all other things equal, to control the generation of inequalities in the first place. Let us look at these two arguments in turn.

In the face of growing inequalities in income and wealth in recent decades, one would have expected the correction of these inequalities through tax and transfer policies to become more significant, too. However, this has not been the case, with the top income tax rates as well as corporate tax rates in decline in OECD countries since the mid-1970s (Clausing 2016). One of the explanations of this puzzle lies in the fact that the redistributive capacity of the state has come under increasing pressure. Under conditions of capital mobility, tax competition between different jurisdictions makes an effective taxation of capital hard to achieve, thus letting inequalities grow relatively unchecked (Dietsch 2015). Even someone who thinks that redistribution should, in principle, be the task of the state, might concede that under these conditions, where the fiscal hands of the state are tied, monetary policy should be more sensitive to the inequalities it creates than otherwise. At the very least, monetary policy should abstain from exacerbating inequalities further. Two considerations add further weight to this position: first, the increasing macroeconomic importance of monetary policy and, second, the fact that monetary policy generates inequality primarily through favouring the economic factor that is the most difficult to tax – i.e., financial capital.

Does this mean that the potential competence of central banks to contain inequalities should, at most, be conditional, and be revoked if and when the redistributive capacity of the state can be restored? We think there is a second, more fundamental and permanent reason to widen central banks' mandate to include containing inequalities, and thus answer this question negatively. As optimal tax theory (Mirrlees 1971) tells us, redistribution always comes at a cost. In response to taxation, economic agents modify their behaviour, for example by working less or by evading taxes. In other words, the redistributive bucket is leaky (Okun 1975). From an efficiency perspective, not creating an inequality in the first place is thus preferable to having to correct it after the fact. A complementary argument has been advanced from a psychological perspective. As Murphy and Nagel (2002) have argued, people have a sense of entitlement to their pre-tax income. Even though Murphy and Nagel argue that this sense of entitlement is misplaced, they point out the political feasibility constraints it creates for a progressive tax on income. Once again, this argument gives us reasons to try and prevent inequalities from occurring rather than correct them *ex post*. One way to fulfil this requirement is by devising less inegalitarian alternatives to current monetary policies.

In sum, these arguments – without being conclusive – support the position that central banks should play a role in containing inequalities. They can do so by identifying policies that have fewer inegalitarian side-effects than many of those pursued since the financial crisis. Two examples for this kind of approach are the infrastructure bonds and helicopter money discussed in the previous section.

7 Conclusion

Paradigms change, and monetary theory and policy are not immune to this fact. What is more, such paradigm shifts often occur in response to economic crises. While the central banks investigated in this paper have responded to the financial crisis of 2007 with new policy tools, the conceptual framework in which they have formulated this response has remained the same. We have argued that this is a serious obstacle when it comes to taking inequalities seriously.

As section 4 has shown, some central banks display a stronger commitment to containing inequalities (BoE) than others (ECB), with the Fed occupying an intermediate position. Yet even those who acknowledge the intrinsic importance of containing inequalities do not take the logical next step of addressing the trade-off between this goal and the traditional objectives of monetary policy. Subsequently (section 5), we appealed to the doctrine of double effect to undermine the claim put forward by central bankers that they cannot be criticized for the inequalities their monetary policy generated because this effect was unintended and because there were no more egalitarian policy alternatives available. Finally, section 6 scrutinized and found wanting the claims by central bankers that containing inequalities should not form part of their mandate for reasons of both desirability and feasibility.

Given its central role in macroeconomic policy today as well as the profound distributive impact of its extended policy set, monetary policy needs to reflect on the adequate response to a new set of trade-offs. This paper has identified a number of these trade-offs and developed some ideas on how to address them. If this can contribute to dislodging the old paradigm, we will have achieved our goal. It may be unsurprising that central banks did not think about the distributive impact of their response to the crisis in 2008. Seven years later, it is a case of negligence that can no longer be excused.

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Tables

povert, poor, rich , distributi, equita, inequit, justic, injust, wealth, lowincome, low income, low-income, high income, highincome, high-income, lower income, higher income, lower-income, higher-income, middle class, middle-class, more modest means, lowwealth, low wealth, low-wealth, high wealth, highwealth, high-wealth, lower wealth, higher wealth, lower-wealth, higher-wealth, higher-net-worth, lower-net-worth, high-net-worth, lower-net-worth, bonus, social cohesion, fairness, realloc, inequalit, Piketty, welfar, Gini , Rawls, helicopter, natural rate of interest

Table 1. *List of stemmed keywords used*

	Number of documents				
Year	in the corpus	with relevant extracts	relevant to Q.1	relevant to Q.2	relevant to Q.3
2008	39	2	1	1	2
2009	129	5	2	2	2
2010	140	11	3	0	11
2011	138	18	6	1	14
2012	134	21	6	6	14
2013	149	27	12	10	16
2014	118	18	8	6	16
2015	17	2	0	1	2
Total	864	104	38	27	77

Table 2. *Number of documents per year in the corpus*

Figures

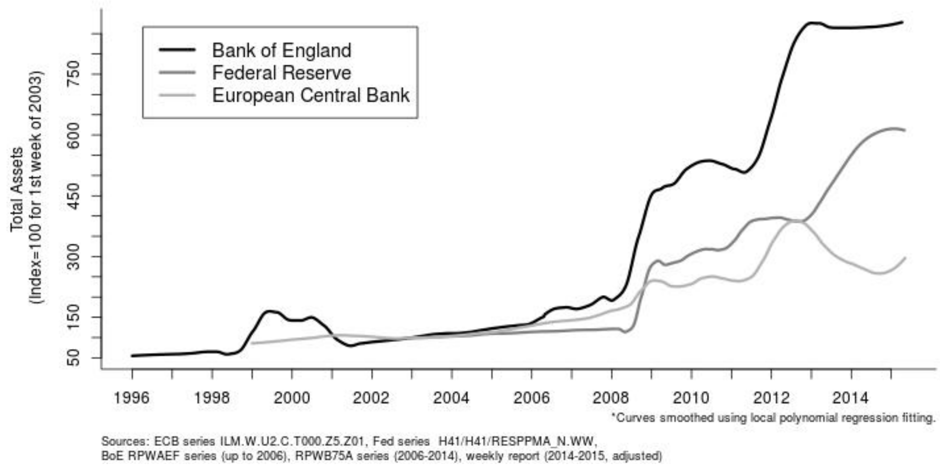

Figure 1. *Total assets of the three central banks indexed at their early-2013 levels*

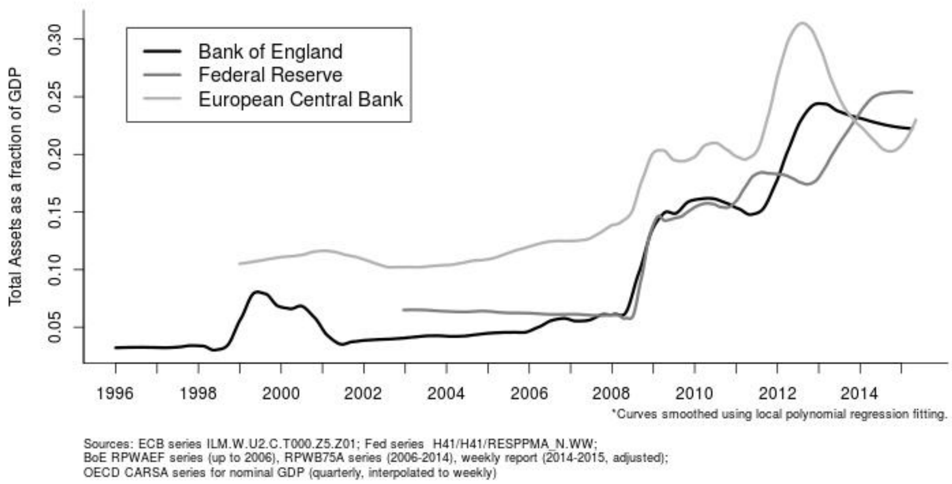

Figure 2. *Ratio of total assets to the annual GDP of each monetary union*

[1]We thank two anonymous referees for pushing us to clarify this point.

[2]For an insightful perspective on the justice of social practices, see James (2005).

[3]Indeed, the research centers of the Fed and the ECB target top peer-reviewed journals and rank very highly in different bibliometric citation databases (Freedman et al. 2011). For example, the ECB ranks 6th in the RePEc (Research Papers in Economics) database. In this respect, central bankers are unlike other agents that implement policies because they are also the dominant experts in their field.

[4]By contrast, elected officials are expected to manipulate the money supply in order to implement public spending policies and be re-elected.

[5]Greenspan's "Great Moderation" is a good example of this belief in the far-reaching effects of price stability, alongside the widespread pre-crisis inclination of central bankers towards financial industry self-regulation.

[6]The interbank lending market is the market where banks lend to each other. Its smooth functioning is vital for the stability of the payment systems in our societies.

[7]We thank one of the anonymous referees for pushing us to make this paragraph more precise.

[8]A good example is Mario Draghi's pledge to do "whatever it takes" to preserve the euro currency; it immediately affected eurozone sovereign interest rates although no monetary tool was implemented.

[9]See Article 127 (6), Treaty on the Functioning of the European Union.

[10]The analysis of the mechanisms of the subprime crisis is well outside of the scope of the paper (see Blyth 2013).

[11]In 2014, the BoE, Fed and ECB balance sheets roughly amounted to 25% of the GDP of their respective currency zones.

[12]All minutes of the Fed and the BoE committee meetings are included (minutes were not available for the ECB before January 2015). When the corpus was being constructed, only the FOMC's

2008 meetings had publicly available transcripts. Press releases from the Fed are included. Transcripts of the press conferences by the ECB's president following the committee's meetings are included as well as similar events by the Fed's Chairperson (when available).

[13]We thus leave out speeches by presidents of district banks in the USA and by national central bankers in the Eurozone.

[14]http://www.opensourceshakespeare.org/stats/ (accessed June 3rd, 2015).

[15]We used the R package RQDA to manage and code our corpus (Huang 2014).

[16]These numbers underestimate slightly the proportion of relevant documents since, in a few cases, we stopped tagging excerpts that we had seen repeatedly from the same author.

[17]As one of our anonymous referees rightly pointed out, distributive effects of monetary policy have been debated before, for example in the discussion about the Phillips Curve and the presumed trade-off between inflation and employment. However, it is fair to say that distributive concerns have dropped off the radar of both policy makers and theorists in recent decades.

[18]Someone might rightly object that these other objectives are of mere instrumental value themselves, but we deliberately set this objection aside at this stage.

[19]In its classic formulation used here, prioritarianism targets utility as the relevant kind of social advantage. This is due to the fact that it is in part – to the extent that it takes into account aggregate welfare – informed by utilitarian considerations. At first sight, prioritarianism thus represents an exception to the above-mentioned trend among theories of distributive justice towards focusing on means or resources rather than welfare as the relevant dimension for social justice. However, note that a prioritarian criterion can just as well be applied to other types of social advantage such as income.

[20]Haldane, 21 May 2014.

[21]A complementary argument is put forward by Charles Goodhart, who incidentally is also a former member of the board of governors of the BoE. Goodhart argues that the trend towards a

weakening of labour vis-à-vis capital as a factor of production holds down consumption and thus demand as well as output. See Goodhart 2014.

[22]Raskin, 29 June 2011.

[23]Raskin, 18 April 2013; see also Raskin, 16 May 2013.

[24]Yellen, 11 February 2014.

[25]Bernanke, 27 February 2013.

[26]Haldane, 29 October 2012.

[27]Haldane, 21 May 2014.

[28]Mersch, 17 October 2014.

[29]King, 15 September 2010.

[30]Carney, 27 May 2014. It should be noted that Rawls himself would insist that the relevant currency of justice behind the veil of ignorance is relative *advantage* (in terms of social primary goods) rather than the *welfare* of individuals. Note also that Carney, like all other central bankers in our corpus (see section 6 of this article), does not draw the conclusion that his considerations about the intrinsic desirability of fighting inequalities should influence monetary policy narrowly defined. Instead, he states later in the same speech that "[c]entral banks' greatest contribution to inclusive capitalism may be driving financial reforms that are helping to re-build the necessary social capital."

[31]Draghi, 3 May 2012.

[32]Cœuré, 17 October 2012.

[33]"I think it is part of the American ideal that everyone has opportunities to advance themselves economically and to participate fully in our society" (Bernanke, 2 March 2011)"I think it is appropriate to ask whether this […] is compatible with values rooted in our nation's history, among them the high value Americans have traditionally placed on equality of opportunity." (Yellen, 17 October 2014)

[34]Bernanke, 27 February 2013.

[35]"So I take it as self-evident that a highly unequal society will be one where opportunity is not as broadly spread as it should be and where many people will suffer poverty and depravation. So I would hope that we can move towards a more equal society, at least in terms of opportunities." (Bernanke, 2 March 2011) And also: "Sure. So that's certainly the case that there are too many people in poverty." (Bernanke, 18 September 2013)

[36]"Well, as I've said before, I certainly understand that many people are dissatisfied with the state of the economy. I'm dissatisfied with the state of the economy. Unemployment is far too high." (Bernanke, 2 November 2011)

[37]The relevant research papers include: Brunnermeier and Sannikov 2012; Coibion et al. 2012; Cour-Thimann 2013; Klaus and Zhu 2014; Monnin 2014; Saiki and Frost 2014.

[38]For instance, the Fed has extensive responsibilities regarding the implementation of the 1977 Community Reinvestment Act, which among many things includes the promotion of financial literacy for lower-income individuals (Community Affairs Officers 2014). This is not monetary policy and will thus be left out of our analysis.

[39]For a more detailed analysis of the various potential meanings of causal claims in macroeconomic policy settings, see Claveau and Mireles-Flores (2014).

[40]These conditions are not usually taken to be jointly sufficient. Another standard condition is that the good effect should not be produced by means of the bad effect.

[41]Miles, 1 March 2012.

[42]The discourse of Fed officials is slightly more complex because full employment is in their mandate. They thus emphasize that distributive effects apart from higher employment are unintended.

[43]Cœuré, 2 September 2013.

[44]Posen, August 2012.

[45]Broadbent, 23 October 2014.

[46]Cœuré, 10 June 2013.

[47]Bernanke, 17 July 2013.

[48]Mersch, 17 October 2014.

[49]Some central bankers go one step further by maintaining that the stable environment provided by monetary policy is a long-term cause of greater equality: "Overall, monetary policy aimed at low inflation and economic stability is the most likely to lead to greater social equality over the longer term." (Cœuré, 10 June 2013) In other words, the unintended effects would, in fact, be positive in the long-run.

[50]Draghi, 18 June 2013.

[51]Mersch, 17 October 2014.

[52]Mersch, 17 October 2014.

[53]Haldane, 21 May 2014.

[54]Carney, 27 May 2014.

[55]Hoenig, 26 July 2011.

[56]Mersch, 17 October 2014. In May 2015, M. Draghi, president of the ECB, made a similar statement: "Distributional matters are complex, and even more so in the context of a heterogeneous monetary union." (Draghi, 14 May 2015) Yet, the rest of his speech is much more affirmative than Mersch was half a year before. He identifies likely distributive effects on various groups.

[57]Haldane, 21 May 2014.

[58]Mersch, 17 October 2014.

[59]Carney, 27 May 2014.

[60]Haldane, 21 May 2014.

[61]See Table 2. The only three documents in our corpus before 2011 with extracts on our second question (Q.2) are from Fed officials and do not talk about the effects of monetary policies in the wake

of the financial crisis (but about the implementation of the 1977 Community Reinvestment Act).

[62]Posen, August 2012.

[63]http://www.federalreserve.gov/newsevents/reform_mbs.htm (accessed May 12 2015).

[64]Trichet, August 2010.

[65]These are the Term Securities Lending Facility and the Primary Dealer Credit Facility, see http://www.federalreserve.gov/monetarypolicy/tslf.htm and http://www.federalreserve.gov/newsevents/reform_pdcf.htm (both accessed May 18 2015).

[66]FOMC, 24-25 June 2008.

[67]FOMC, 24-25 June 2008.

[68]Draghi, 10 March 2016.

[69]A relevant question here is what happens when the government bonds on banks' balance sheets come to maturity. If, rather than forcing the government to roll over the debt, the central bank simply forgave the debt at that point, thus shrinking both its own balance sheet and government debt, this *might* contribute to reducing inequalities. Yet, it might have other, less predictable consequences, on inflation for instance. More research is needed on this question. We thank Tobias Tesche for bringing it to our attention.

[70]Bernanke, 2 November 2011.

[71]Raskin, 22 March 2013.

[72]Bernanke, 18 July 2012.

[73]Bernanke, 18 September 2013. For the BoE, see Carney, 9 September 2014; for the ECB, see Cœuré, 9 October 2013 and Praet, 9 February 2015.

[74]Cœuré, 9 October 2013.

[75]For example, when the ECB was about to gain new financial supervision powers, it put a legal team to work to determine the maximum extent of the transfer allowed by the ambiguous enabling

clause of its mandate in Art. 127 (6) (De Rynk, 2015, p.11). To the best of our knowledge, no such team was put to work to determine whether considerations about inequalities could be incorporated in the ECB mandate under article 127 (1).

[76]According to the literature on the principal-agent relationship, if the uncertainty in a specific policy domain is high, ex-post controls might offer more flexibility to define the terms of the contracts as problems emerge and evolve (Gilardi 2007).

[77]Plausibly, given the institutional differences between the three central banks as well as the differences between the political systems in which they are embedded, the precise way in which the moderate proposal is implemented might also show some variance across countries or monetary zones. We thank Rainer Bauböck for this comment.

[78]Haldane, 29 October 2012.

[79]Bernanke, 2 March 2011.

[80]Bernanke, 18 July 2012.

[81]Cœuré, 2 March 2013.

[82]Haldane, 21 May 2014; Yellen, 11 February 2014.

[83]Haldane, 17 October 2014.

[84]For example, the financial arms of car manufacturers are now participating in the monetary operations of the Fed and the ECB. See Watkins and Reed 2012.

[85]To be sure, such an organization should be given the institutional capacities to carry on such projects in a efficient and uncorrupted way.

[86]If the antecedent condition is violated, Friedman tells us that the situation becomes more complex because agents might change their demand for cash balances.

[87]In our corpus, we have some extracts in which central bankers do consider the helicopter option, but these extracts do not qualify as instances of seriously considering this option. It is presented by Praet (31 January 2015) as being a point "made in some academic circles" that he can dismiss by listing a few questions that its implementation raises. It is even more bluntly rejected by Draghi (2 May 2013) as not being the European way: "We don't go around with helicopter money, throwing money around. In Europe, you have to go through banks."

[88]This comparison is exploited by Draghi (14 May 2015): "First of all, it is important to make clear that there are also distributional effects from monetary policy inaction – from the central bank not meeting its mandate or, in other words, from realised inflation persistently deviating from the central bank's objective."

[89]Praet, 16 February 2015.