

The Fed as a Moral Enterprise - A Framework for Decision-Making

BY/PAR JOHN D. FELDMANN

Senior Fellow for Ethics and Political Economy at the Center for Financial Stability, NYC

ABSTRACT

Central bankers are currently rethinking the frameworks of monetary policy in light of the extreme disruptions and unprecedented policies of the Global Financial Crisis. The paper examines whether a rule based approach that incorporates moral considerations beyond economic utilitarianism could provide a more fair, effective and stable monetary system. It demonstrates that criticisms of Fed policies raise moral questions that reflect a widely held normative framework in the monetary arena. The paper abstracts from the criticisms and elaborates a pluralistic framework based in the work of moral philosopher W.D. Ross consisting of the basic duties of non-harm, beneficence, fidelity, justice, and reparation. It outlines a decision system that relies on moral intuition and strict attention to the facts to balance competing considerations and derive the duty to be followed in the particular circumstance.

Keywords: Monetary Policy, Fed, W.D. Ross

RÉSUMÉ

Les banquiers centraux repensent actuellement les cadres de la politique monétaire à la lumière des perturbations extrêmes et des politiques sans précédent de la crise financière mondiale. L'article examine si une approche fondée sur des règles qui intègre des considérations morales au-delà de l'utilitarisme économique pourrait fournir un système monétaire plus juste, efficace et stable. Il démontre que les critiques des politiques de la Fed soulèvent des questions morales qui reflètent un cadre normatif largement répandu dans le domaine monétaire. L'article résume les critiques et élabore un cadre pluraliste basé sur le travail du philosophe moral W.D.Ross, composé des devoirs fondamentaux de non-préjudice, de bienfaisance, de fidélité, de justice et de réparation. Il décrit un système de décision qui repose sur l'intuition morale et une attention stricte aux faits pour équilibrer les considérations alternatives et dériver le devoir à suivre dans les circonstances particulières. **Mots-clés:** politique monétaire, Fed, W.D. Ross

JEL Classification: A13; B42; E58

1. Introduction

A crisis within a crisis has been brewing in the gatherings of central bankers and monetary policy mandarins over the past decade. At one level, the deliberations have involved the financial and economic crisis and the technical aspects of macroeconomics and monetary theory. But on closer analysis, one perceives a deeper crisis within - an economic establishment at odds at a theoretical level over what kind of monetary system we want, or better said, what kind of thinking is needed to manage the global monetary system in a way that is fair and beneficial to all.

Bringing the deeper crisis to a head were the decisions by the US Federal Reserve under Chairman Ben Bernanke to institute a series of unprecedented and unconventional monetary policies in response to the great financial crisis, lowering interest rates to zero and buying more than four trillions of dollars in US Treasury and Mortgage Securities in policies commonly referred to as ZIRP and QE. Welcomed initially, these policies were soon met by allegations of serious adverse effects and heavy criticism from emerging market central bankers, from the Bank for International Settlements, and from many in academia. These criticisms were essentially a challenge to the basic rationale and methods of the Fed policies. The Fed's response was to dismiss the criticisms and justify the unconventional policies with the same formal methodologies and normative presuppositions from which they arose.

In a speech in September 2010 entitled "Implications of the Financial Crisis for Economics," Bernanke gave an indication he was aware of the challenge to the field raised by the financial crisis. "I don't think the crisis by any means requires us to rethink economics and finance from the ground up..." (Bernanke 2010). Contrary to Bernanke's dismissal, the financial crisis and the Fed policy responses had indeed brought the deeper crisis to the surface and raised the question whether economics did indeed require a different way of thinking from the ground up.

The methodologies used by the Fed presume that the monetary system is a technical enterprise best understood and managed with the formulae of mathematics and physics. I lay out the case in opposition that monetary policy is by its very nature a moral enterprise. By this I mean that moral considerations and normative judgements have a great deal to do with formulating monetary policy and in deciding what purposes it should serve. The challenge in rethinking economics has to do with determining how to make moral considerations count. As dominant member of the global monetary system, it is particularly incumbent on the Federal Reserve to recognize the moral responsibilities entailed in setting monetary policy. Indeed, I would make the claim that the only way the Fed can preserve its role as manager of the world's reserve currency is by adopting a monetary policy decision framework that explicitly justifies its policies transparently on the basis of moral presuppositions. In this essay I take an initial step in developing a decision framework that would incorporate the moral dimensions of a globalized monetary policy.

2. BACKGROUND IN BRIEF: FINANCIAL CRISIS, FED RESPONSES, CRITICISMS OF FED POLICIES

Most people are now familiar with the events and circumstances of the 2007–12 Great Financial Crisis: stock market crashes, a 30 percent collapse in US mortgage and housing prices, the bankruptcy of a number of leading US financial firms, the implosion and bailout of European banks and sovereigns. The economies of the developed world suffered what has become known as the Great Recession with negative GDP and high unemployment levels. In a series of policy moves, the Fed set about to open credit channels and stimulate economic growth and employment in the U.S. and they were largely successful. In the early days of QE even critics acknowledged that much of what the Bernanke Fed initially did was exactly right, "... In this matter, central bankers are deservedly heroes" (Rajan 2014b, 4).

However, the effects of the Fed policies were not all positive and soon criticisms emerged even from initial supporters. The Fed's monetary policy actions benefitted the U.S. but produced "spillovers" with negative side effects and "unintended consequences" that harmed the rest of the world (White 2012). The criticisms raised the moral question of whether the Fed was refusing to accept moral accountability for the consequences of its actions.

Researchers produced papers showing that low US interest rates and QE monetary expansion were leading to commodities price spikes and serious speculative demand shocks in the EME. The EME finance ministers and central bankers who generally operate quietly behind closed doors began to blame openly the Fed policy and often Chairman Bernanke himself for these adverse consequences. One early critic was Guido Mantega, finance minister of Brazil, who called out Bernanke at an IMF meeting for undertaking "a selfish policy" and for "reignit[ing] the currency wars with potentially drastic consequences for the rest of the world"(Zhang 2012). 'Brazil's Finance Chief Attacks US over QE' (Rathbone and Wheatley 2012).

Mantega also put forward his complaints in a more official way in the IMF semi-annual proceedings.

Major reserve currency ... ultra-expansionary monetary policies [are] the primary trigger of many of today's economic woes. Excessive liquidity contributes to rapid credit expansion and asset price booms, as well as oil and other commodity price bubbles increase the cost of living, especially for the poorest (Mantega 2011, 1).

In addition to Mantega, there were many critics of Fed policy. "The printing press is turning non-stop and flooding the world with dollars" (Mercopress 2011). ".. [T]he Fed's attempt to flood U.S. markets saw large amounts of cash spill over into emerging markets" (Mackintosh 2013, 11). Food price and currency distortions caused severe hardship in poor countries where food is a large percentage of the average household budget (Inman 2011; Melloan 2011). A former high level UN official summed it up "The Fed's expansionary monetary policy generates significant externalities for the rest of the world—effects that the Fed is

¹See as examples: Krichene (2008); Warnock and Warnock (2009); Neely (2011); Fratzscher, et al (2013); Ahmed and Zlate (2013); Rogers et al. (2014); Bowman et al. (2014); Bruno and Shin (2015); O Davis (2015).

certainly not taking into account" (Ocampo 2012). These all represent criticisms of the Fed based on moral considerations.

A look at the Fed responses suggests that Fed Chair Ben Bernanke was indeed dismissing the various charges and criticisms with little regard for moral responsibilities. Bernanke's position was basically a denial of causation or causal responsibility for EME problems as contemporary accounts reflect: "Fed Chief Ben Bernanke Denies U.S. Policy behind Record Global Food Prices" (Blackden and Wilson 2011); "Bernanke Defends Fed from Claims It Is Being Selfish and Hurting Emerging Economies" (Zhang 2102); "[A]dvanced-economy monetary policies are not the dominant [causal] factor behind emerging market capital flows" (Bernanke 2012); "the linkage between advanced-economy monetary policies and international capital flows is looser than is sometimes asserted" (Bernanke 2012). Bernanke also defended unprecedented actions with claims that what he did for the US was actually good for the world economy as well. "This policy not only helps strengthen the U.S. economic recovery, but by boosting U.S. spending and growth, it has the effect of helping support the global economy as well" (Reuters 2012). The Bernanke Fed's justification was "An unconventional monetary policy was necessary to keep the U.S. economy growing and effective. In that respect, it is in everyone's interest to have the U.S. economy growing faster" (Anand and Bellman 2014).

Beyond dismissing the criticisms, Bernanke did not think the Fed was any way responsible for helping the EME, "...emerging markets have all the tools they need to address excess demand in those countries" (Bernanke 2012). And the Bloomberg news service reported Bernanke to say, "They [EME] know what to do in a world dominated by the Federal Reserve. If they don't do it the Fed can't do much about that" (Mckee 2015). Other members of the FOMC agreed putting it this way, "we only have a mandate to concern ourselves with the interest of the United States" and, "Other countries simply have to take that as a reality" (Kennedy, Zumbrun, Kearns, 2013).

Another critic of Bernanke's methods and policies, Raghuram Rajan, challenged Bernanke's dismissive posture. At various times an IMF chief economist, Bank of India Governor, BIS researcher and University of Chicago professor, Rajan provided a narrative empirical account that directly questioned Bernanke's reliance on methods of modelled abstraction.

"By downplaying the adverse effects of cross-border monetary transmission of unconventional policies, we are overlooking the elephant in the post-crisis room" (Rajan 2014a, 6).

This simple metaphor was essentially a frontal attack on the narrow theory of causation of the Fed methodologies that allowed the Fed to hold its cramped theory of moral responsibility.

Rajan also criticized a Fed monetary policy that "moves toward extremely and unconventionally accommodative policies" as a "...new, varied form of competitive easing" (Rajan 2014c, 2). In this way Rajan brought to the fore the key point that the Fed's "unconventional" policies had broken with long established standards and rules of expected behavior among members of the global monetary system. Rajan called out the Fed's methodology of lumping all countries together in a globally aggregated scorecard dismissing negative spillover effects and only taking into account the "net costs" in gauging its

successes. (Rajan, 2014b, 7) In an aggregated calculation of total benefits the elephant in the room disappears.

Not surprisingly, Bernanke reacted very strongly to Rajan's criticisms as the news accounts reflect "Banker showdown: Bernanke tells off India's Rajan" (Caruso-Cabrera. 2014).

A number of researchers stepped in to counter Bernanke's denials and disavowals. Most prominent was London Business School economist Helene Rey, one of Bernanke's sharpest critics in academia. Rey showed that the global benefits of Fed policies claimed by Bernanke were insubstantial, "the gains tend to be small; ...on the order of a few tenths of a percent" (Rey 2013,19). Rey also took on Bernanke's narrow theory of causal responsibility showing that the Mundell- Fleming Trilemma "misleads us" by assuming that a country has its own monetary policy in the face of Fed actions (Rey, 2014, 2). In a recent update of her early work, Rey was more direct, concluding that the Fed is the hegemon and US monetary policy the main driver of the global financial system, thus the Fed must take account of the negative consequences of its policies for the good of the rest of the world (Rey, Miranda-Aggripino, 2019, 31).²

In later responses Bernanke singled out Mantega, Rajan and Rey as his primary antagonists. (Bernanke 2015a, 52–64; Bernanke 2015b, 23–37). He basically dismissed them all saying the Fed was not responsible for the destabilizing effects of its policies and the causation relation is weak.³

"The relationship between the global financial cycle and destabilizing financial spillovers is a loose one, at best. ...there are many reasons for financial conditions to be correlated across countries, some of which are more benign" (Bernanke 2015b).

Bernanke thus denies causation and refutes the Fed's role in harms and injustices. When there were other actors or intervening events, the Bernanke Fed put the causation and blame on them and assumed no moral responsibility for the consequences of Fed policy action.

We see normative judgements throughout these criticisms of the Fed. Clearly, the crisis related events were seen as moral and not simply economic phenomena. When Mantega worries about the small countries unfairly paying a high price and the speculative commodity shocks burdening the poorest he is registering moral complaints about the harms caused by Fed policies. When Rajan criticizes Fed policies "...where the benefits are largely in the US, while the costs fall largely abroad..." he is registering a justice claim. When Rajan describes policies as "extreme and unconventional" and "competitive easing" he is complaining that

_

² The BIS researchers support the Rey thesis. For example, see G Plantin and HS Shin, 'Exchange Rates and Monetary Spillovers', BIS Working Papers No 537, Bank for International Settlements, January 2016.

³ Bernanke dismissed the Rey findings on formal methodological grounds - for "lack of global factor benchmark", for failure to consider "long period buildup effects" and also went on to dismiss Rey's criticisms of the Mundell-Fleming thesis. (Bernanke 2015b)

the excess leverage, capital surges and countries awash with dollars are the result of the Fed breaking the understood rules of the game. Rajan, Rey and others reflect the view that a high standard of moral responsibility is appurtenant to the Fed's status as hegemon and privileged reserve currency role of the US dollar. These criticisms can all be viewed as claims of moral norms breached and promises broken. In this essay, I will argue that in forming monetary policy the decision makers should take these moral considerations into account ahead of time. This means that a decision framework for the central bank as a moral enterprise must incorporate principles like non-harm, beneficence, and justice in its monetary decision framework.

In addition, underlying all the criticism is a constant refrain of the Fed's inability or refusal to take all of the facts and consequences of its actions into account - of a Fed disregarding the world around it and lacking information needed to manage the monetary system that it dominates. Rajan points to the elephant in the room that the Fed is ignoring. Ocampo speaks of the significant 'externalities' that the Fed certainly is not taking into account. Rey concludes the Fed is 'not paying attention' to the implications of its policies for the rest of the world. The off-hand dismissal of relevant facts by the Fed is in sharp contrast to the Fed critics' insistence on a full account of the situation at hand. This information selectivity or modeled abstractification of the facts is a serious deficiency in the Bernanke Fed's approach to policy making. Since a comprehensive factual account is essential to the resolution of moral problems, the Fed needs a better causation theory to support its decision framework. After outlining a rule based framework I discuss the broader theories of causation, recognition and probability needed for a monetary policy decision framework.

2.1. A Rule Based Moral Framework

To consider how moral considerations might be best accommodated in a Fed decision one must look closely at what a central bank decision involves. A central bank is not simply a financial institution where only economic consequences count. As we saw in the examples above, decisions of a monetary authority involve wide political, social and moral questions that cannot be properly accounted for if only economic utilitarian thinking is recognized. As can be seen in the EME criticisms there are questions of justice and of rules of the game not taken into account. One way to include such considerations would be to try to assign a value to injustices and harms and make that part of the cost/benefit calculations. But that is cumbersome if not impossible and basically concedes the argument for utilitarianism. Instead, I describe a duty based approach to monetary policy that includes a duty of welfare optimization. Thus, I take seriously the utilitarian perspective that it is already inherent in the Fed monetary policy role but in my approach it is only be one moral concern - or one duty among several others. Further, I would go beyond the economic utilitarianism of the Fed and use the broader definition of ideal utilitarianism - where the goal is not only economic welfare but in making society and individual lives better off and the world as good a place as it can be.

Given the complexities of monetary policy decisions, I am proposing a pluralistic framework for deciding between competing moral duties and utilitarian considerations. It is based on the work of mid 20th century Scottish moral philosopher, W.D. Ross, for many years Professor and Provost at Oxford University. He was a leading figure in the "intuitionist school" of moral theory and the author of still influential works <u>Foundations of Ethics</u> and <u>The Right</u>

and the Good. Ross sought to find a common framework for implementing the key insights of both the duty-oriented approach associated with Immanuel Kant and the utilitarian approaches traced to John Stuart Mill and others. This framework suits the case at hand as the critics focus on harms and injustices of Fed policies, reflecting a Kantian perspective while on the other hand the Fed relies on the greater good reflecting the Mill utilitarian formulations. The Ross "pluralistic" framework thus presents itself as a useful framework for accommodating these differences.

Ross counted himself within the Kantian tradition and emphasized the importance of duties and rules that must be observed irrespective of the consequences or utilities to be maximized. However, Ross didn't reject consequentialism out of hand. His concern was that utilitarianism often made "consequences" the only consideration in a moral decision, putting the production of something in the future the primary focus of the moral task. As Ross puts it, this future oriented consequentialist perspective ignores the facts that "stare us in the face," that the morally right thing to do often consists in being faithful to obligations established in the past without weighing the costs and benefits of doing so (Ross 1935, 1). Nevertheless, though Ross thought that utilitarianism was on its own an inadequate account of the morally right thing to do, unlike most orthodox Kantians he provided a framework that gave due regard for utilities and consequences as morally significant. Ross develops this account by including justice and utility in what he called *prima facie* duties and relying on deep appreciation of the facts and moral intuition to determine the *actual duty* is to be observed in a particular situation.

3. PRIMA FACIE DUTIES: CONDITIONAL VS. ACTUAL DUTIES

The Ross pluralistic form of intuitionism recognizes there are often multiple duties incumbent on the moral agent facing a particular decision. Ross's list includes a number of duties, most of which came up in the criticisms and in Bernanke responses: *beneficence*, or greater good; *non-maleficence* or harm avoidance; *fidelity*, or faithfulness to promises made; *justice*, of insuring fairness and equity; and *reparation*, or redressing previous wrongs (Ross 1935, 21). Taken together these prima facie duties constitute the "pluralistic" duty orientation of the Ross approach.

Ross makes the strong claim that these duties are self-evidently true and express the moral order that is a fundamental element of the universe.

[A prima facie duty] is self-evident just as a mathematical axiom, or the validity of a form of inference, is evident. The moral order expressed in these propositions is just as much part of the fundamental nature of the universe ... as is the spatial or numerical structure expressed in the axioms of geometry or arithmetic. (29, 30)

In our confidence that these propositions [of prima facie duties] are true there is involved the same trust in our reason that is involved in our confidence in mathematics; (30)

Calling moral duties as intuitively self-evident as a mathematical axiom seems a rather large claim. However, there does seem to be a broad intuitive recognition of these moral norms as we saw the moral concerns they reflect registered in the complaints of the Fed critics.

The idea of *prima facie* duty and the 'actual duty' to which it gives rise is solidly grounded in the facts.

A prima facie duty is something like a "conditional duty" - not yet a duty that is required to be performed until all the conditions and circumstances are known. (19)

The emphasis in Ross then is that although the moral decision involves discerning one's moral duty, it is dependent on a thorough knowledge of the circumstances and a sorting through of the facts to determine which obligations call us to action. Once that is done, one of the conditional duties emerges (through a mental process described below) as the "duty proper" or the "actual duty." (19, 20) In this emphasis on knowing the facts Ross's system is relentlessly empirical.

An important insight is carried in the idea of "prima facie" duties. A sense of obligation to the other duties remains intact even when one is performing the "actual duty." Ross thus captures something quite important here about moral psychology in complex practical circumstances, namely, the awareness that the "duty proper" does not satisfy all moral claims and further, that moral agents feel there to be continuing, conflicting duties that have real claims on them when they cannot fulfill all duties in a particular circumstance. In Ross's scheme these remain conditional duties that might still become actual duties if the conditions and circumstances were to change. The upshot of the Ross approach is that it recognizes the importance of the decision maker constantly reevaluating the evolving circumstances to determine the "duty proper' that might emerge as the "greatest duty' in the changed circumstance. This constant reevaluation and reassessment is another indication of the relentlessly empirical nature of Ross's scheme.

Ross emphasizes that the whole situation must be taken into account before making the moral decision.

The 'duty proper' or actual duty which arises from the 'whole nature of the situation' (Ross, 33).

The nature of this concern for a full account of the facts and circumstances is echoed in the words of a highly regarded late twentieth-century philosopher, William Frankena.

...when one is puzzled about what he or someone else should do in a certain situation, ... most of us would probably be clear about what should be done if only we knew all of the relevant facts. ... much of our difficulty about decisions of policy is due to unclarity. Certainly, a large part of the debate about what to do... arises because we are ignorant of much of what bears on these problems (Frankena 1973).

And for Frankena, like Ross, the effort to try to understand all the relevant facts is absolutely critical.

I stress these points because I think that moral philosophers cannot insist too much on the importance of factual knowledge and conceptual clarity for the solution of moral and social problems.

This relentless empiricism and the need to get clear on and attend to <u>all</u> the facts is a subtle but extremely important feature of responsible moral decision making. As we saw from the complaints against Bernanke, the failure to understand and engage all the facts is a

fundamental flaw in the Fed's simplified decision framework.

3.1. The whole nature of situation to be understood

Ross's emphasis on importance of taking the whole nature of the situation into account is illustrated with his example of the isosceles triangle. All isosceles triangles have two equal angles. But that feature is only a single attribute of similarity as the triangles may differ considerably as to the length of the sides, size of the angles or the total area (Ross, 1935, 33). So also with a determination of one's moral duty proper. All angles and dimensions of the situation must be taken into account. Otherwise, a decision maker could think that he or she had fulfilled a moral duty having mistakenly considered only one aspect of the situation. Ross realized that even after careful consideration of all the facts, there could still be a disagreement over what duty the situation entails. However, forcing a dialogical process around the facts is the best way to reach agreement on a way forward. Overly focusing on a partial account of the facts – on the prospective consequences of success - is what Ross thinks that those who subscribe to utilitarianism do, and what its critics think that the Fed does. The key point is that appreciation of the whole nature of a situation is critical and achievable only by an insistence on the relentless empirical inquiry described by Ross and Frankena.

In Ross's frame, the serious criticisms against Bernanke come down to his ignoring the important facts of the externalities and spillovers and his consequent failure to address important moral considerations. So before discussing duties in more detail, I propose some ways to remedy these deficiencies in Bernanke's processing of relevant facts and circumstance. First, I would expand the Fed's narrow and inadequate theory of causation and remedy the deficiency in his probability calculus of largely ignoring the odds and costs of harms and failures. Second, I would substitute a "thick theory" for Bernanke's "thin theory" of recognition of the conditions and circumstances of others. These adjustments help satisfy the 'whole nature of the situation' knowledge requirement in determining the Fed's proper moral duty in the circumstance.

A Broad Theory of Causation⁴

Knowing the whole nature of the situation and being relentlessly empirical requires the adoption of a broad theory of causation. All consequences of one's initial action, including consequences of subsequent actions of others in response, must be considered in the causal chain and become the acknowledged causal responsibility of the initial actor. The new emphasis in Fed decision-making would be on taking account of all the circumstances, conditions and consequences and on accepting responsibility for the full causal chain of events. The image of the "accordion effect" was introduced by the late philosopher Joel Feinberg, as a way of understanding the difference between narrow and broad theories of causation. Under this image, one could view the consequences of a person's action as being "squeezed down to a minimum or else stretched and puffed out"—like the accordion (Feinberg 1970, 146). The "puffed out" or "squeezed down" alternatives have to do with the place given to intervening acts or events in one's causation theory. A 'squeezed down' or narrow theory of causation would have it that intervening actions often negate the causal

-

⁴See Feldmann 2016 for a fuller treatment of causation theory as it relates to monetary policy decision making.

connections to the initial act. In other words, the intervening actions exculpate and absolve the initial actor of responsibility for subsequent actions. In a 'puffed out' version of the accordion, the initial actor is considered part of the causal chain for all consequences, including the consequences of actions taken by subsequent actors in response to the initial action. The 'puffed out' theory of causation does not negate the intervening acts, meaning that the initial actor is not absolved of the consequences of the reactions of other 'intervening actors' to the initial act. The 'puffed out' theory thus includes causal responsibility even for indirect consequences and unintended adverse effects. This puffed out version is admittedly a broad definition of causation but Fed policy actions that affect the whole world demand broad theories of cause and effect. Such situations demand scientific inquiries, where the objective is to get to the bottom of exactly what happened and a full and complete account of all consequences is needed. In contrast, legal or moral inquiries may have narrower, 'squeezed down' accordion" views of causality where terms like proximate cause and unintended consequences might be applied to limit causation inquiries to culpable responsibility. This cannot apply to economic inquiries, which by the nature of the economics discipline are scientific and thus require full and complete 'puffed out' ideas of causation.

One way of understanding Bernanke's limited viewpoint on the Fed's causal role in spillovers is that his theory of causation confuses the purposes and procedures of legal causal inquiries with those of scientific causal inquiries. Indeed if one listens to his responses - 'linkages loose, Fed not the dominant cause' - Bernanke seems to be incorrectly looking at the investigation of 'spillovers' in the monetary arena not as a scientific inquiry to get to the bottom of the problem but rather mainly as an inquiry (or inquest) to establish his moral or legal culpability for the negative spillover effects in the EME.

Bernanke's adoption of a narrow causation theory does not befit his field of monetary economics, in which a puffed out theory is essential. The process for evaluating expected utilities in monetary policy should include a careful scientific examination of all circumstances and consequences.

A puffed out theory of causation ultimately depends on a robust account of 'probable' consequences. The EME criticisms indicated an apparent lack of awareness or understanding on the part of the Fed of the adverse effects of Fed unconventional policies. This is simply a result of an inadequate attention to the probability of unsuccessful outcomes. This is what BIS Research director William White was warning about in his unintended consequences critique. (White 2012) The tendency of utilitarian logics to overly focus on the probability of successful outcomes was a major concern of the noted economist J.M. Keynes, who actually wrote his PhD dissertation on probability theory. Keynes believed actors tended to see the preferred and hoped for highly beneficial outcomes as more probable than they were, underweighting the probability of failure and the potential costs of adverse consequences. To remedy this deficiency Keynes laid out a decision principle he termed "moral risk." To introduce this concept and situate it in Keynes' larger scheme would take us beyond the purposes of this article, so a summary account must suffice.

Implementing the moral risk assessment involves the calculation of what Keynes called the "probable value." It involves a balancing of the probable value of failure against the probable value of success. (O'Donnell, 122-127) With a "moral risk" assessment, Keynes

showed how a significant potential benefit accompanied by a low probability of success and thus highly probable large negative consequences would have a total low "probable value." Despite the significant benefit it would be a less desirable choice for a rational agent than an option producing a smaller good that was more probable and had fewer potential harms (122,123). The Keynesian moral risk assessment requires a separate and careful assessment of potential harms and seems a proper way to insure that adverse effects are properly accounted for.

It is important to emphasize that this requirement of taking into account all probable consequences involves a broadened perspective than normally employed in the accounts of quantitative formalist economists who prefer simplification, mathematization and reduced form models. But the Fed has the human and intellectual capital to carry this off.

Along with the expanded theory of causation and the whole nature of the situation knowledge requirement there would also be a 'thick theory of recognition' where the essential political, cultural and economic factors of all other members of the monetary regime would become internalized and part of the Fed's decision apparatus.

A Thick Theory of Recognition⁵

Another problem with Bernanke's dismissal of critics and refusal to process the relevant facts they present lies in an inadequate understanding of the role of the Fed in maintaining stability in the international monetary arena. Recognition theory is a staple of international relations that sets forth principles for governing state interactions so as to avoid destructive competitive behavior and conflict among countries. Under recognition theory the Fed as the dominant actor in the global monetary system - US dollar is the reserve currency and Fed policy actions are the driver of global financial cycles – would be responsible for adopting a 'thick theory of recognition.' A thick theory would require that the essential cultural, political and economic factors of all other members of a regime – how each society and economy is bound together - should be well understood by the dominant actor if conflicts are to be avoided (Allan and Keller 2007).

The distinction between a thin and thick recognition is an important one for understanding the disagreement discussed above between Bernanke and his critics (Allan and Keller 2007, 72ff). A thin theory is approximately the perspective of the Fed in the current monetary system. The other members of the monetary regime are minimally recognized by the Fed as independent, autonomous participants, expected to look out for themselves and thus minimally represented deterministically and reductionistically in Fed models. There appears no attempt on the part of the Fed to recognize the essential particularities of other members – or the potential differential effects of policy actions.

The thin recognition of Bernanke's aggregative calculation, which rests on the fact that EME aggregate GDP growth had increased, would give no indication of the harmful effects that were being produced in individual countries and subgroups in the EME by Fed monetary policy. A lack of detailed information and misleading conceptualizations facilitates a mistaken view of one's moral duty in the policy process. A thick theory of recognition of the 'other' facilitates a clear view of how doing one's duty opens the opportunity for coordinated

_

⁵ See Feldmann (2017) for a full discussion of the use of Recognition Theory in the monetary arena.

optimal outcomes.

A fundamental tenet of recognition theory is that the dominant party must go farther than merely acknowledging the existence of others. In order to maintain its legitimacy a dominant policy actor must have a thick understanding of the other member countries in terms of their cultural, political and economic essentials so that 'red lines' would not be crossed and essentials of fellow actors would not be threatened (Allan and Keller 2007, 77). A thick theory of recognition helps avoid missing the elephant in the room and the potential threats, harms, and difficulties created by the dominant policymaker can be empathetically taken into account.

The knowledge of all the facts and circumstances, of the whole nature of the situation of the probable values and thick theory— are necessary prerequisites to applying the prima facie duties.

3.2. Five Prima Facie Duties

We return to Ross's concept of prima facie duties with the purpose of modifying and tailoring Ross's framework for use in Fed monetary policy decisions.

As Ross has it, the duties break down between two sets of special relations. One set of "special relations" is understood by looking at institutional context and past actions in order to understand those special obligations. A second set of special relations is understood by looking outward to the future and the world at large to see what is morally expected (Ross 1935, 21).

The defining moral perspective inherent in all moral systems is a strict attention to the "other" as captured in the formulation "other regardingness" (Little and Twiss, 1978). The special relations construct of Ross seeks to bring all of the 'others' affected by the moral decision whether near or far, past or future, into the immediate presence of the decision maker. The duties and obligations to past, present, and future constituencies can be simultaneously lined side by side, so to speak, so that no "other" is left out. Constituencies far removed in time or space (and elephants in the room) cannot then be overlooked and ignored.

This special relations concept is designed to neutralize the utilitarian tendency to look outward to 'hoped for' future consequences in an effort to produce an optimal future result. In looking to the future, the utilitarians tend to ignore other important relations and obligations arising from past actions. Ross wanted to make sure that the past facing inquiry received due attention. "When [one] fulfils a promise because he thinks he ought to do so, ... He thinks in fact much more of the past than of the future" (Ross 1935,17). One shouldn't look only at potential benefits, one must keep faithful to one's promises and agreements. This is relevant to Fed considerations because taking unprecedented policy actions constitutes a breach of an understanding and implicit agreement among and between the parties in the monetary arena. This is precisely what Bernanke is accused of when lack of respect for reserve currency obligations and extreme and unconventional actions are complained of.

As mentioned, Ross used familiar terms for these special duty relations. In adapting the Ross special relations scheme to the Fed context, I propose the following duties for use by policy decision makers. Looking to the past, the duty of *fidelity* would focus on the obligations and

promises that arose out of prior actions of the Fed, on its purposes, traditions, patterns of practice and promises. The duty of *reparation* would require repairing and remediating the harms caused by what were later discovered to be wrongful past actions of the institution.

The prima facie duties formed by looking outward and to the future rest on a general appraisal of the future condition of humankind. These are *beneficence*, *justice* and *non-harm*. The *duty of beneficence* focuses on improving lives in the future and obligates policy makers to produce outcomes that benefit humankind and make things better for all. The prima facie *duty of justice* involves maintaining a proper distribution of opportunities, benefits and burdens in accordance with standards of fairness and equity. The third type of forward-looking duty is that of avoiding any act that causes harm or injury to others. Ross referred to this as prima facie duty of *non-maleficence* — or simply *non-harm*. These duties comport with our common sense, moral intuitions and fit with the claim of Ross and others that propositions like these are self-evident and a fundamental part of the moral universe. This viewpoint of universal moral norms has its disclaimants but as we saw in the various criticisms from many countries and cultures these duties and underlying principles seem to be the undergirding norms of the monetary community.

As indicated, we will discuss these prima facie duties in terms of Fed policy making in the circumstances surrounding the financial and global economic crisis of 2007-2012. The objective is not to define the duties in detail but merely to give tangible examples of the decision framework in action and then sketch out arguments as to how the duties could be carefully considered by the Fed as a part of each monetary policy decision.

Ross considered non-harm the most important of the duties, so we shall discuss it first.

3.3. The Prima Facie duty of Non-harm

Ross put non-harm in a special category as a duty "of a more stringent character" (Ross 1935, 21). It might seem that harm avoidance would be implicit in the duty of beneficence or greater good. Ross said as much himself. "No doubt to injure others is incidentally to fail to do them good – and should be part of the beneficence calculus" (21). However, Ross still has it that non-harm should be viewed as a distinct duty because "... it seems to me clear that non-maleficence is apprehended as a duty distinct from that of beneficence, and as a duty of a more stringent character" (21). Ross recognizes here that if included with beneficence the prospect of failed policy and harms caused can too easily be overlooked or given minimal weight in utilitarian cost/ benefit calculations.

Ross is realistic in recognizing that persons suffer adversely even when the attempt is being made to do the right thing. "[T]he probability is that any act, however right it may be, will have adverse effects ... on some innocent people" (34). So the "stringent" view of harms as a separate and distinct duty is a necessary response to the EME critics who see the Fed as ignoring harms entirely or dismissing harmful policies as "net/net" beneficial overall.

Attempting to observe a duty of non-harm is a particular challenge for institutions like the Fed as their acts have many wide and disparate effects. So given a probability that some being harmed is seemingly unavoidable, a reasonable approach to follow would be for the policy maker to determine which group of persons can least endure and thus deserve priority attention under the prima facie duty of non-harm. Under the non-harm principle, one group needing special protection, it would seem, would be the persons who are most vulnerable

and at greatest risk in being further harmed. As Fed critic Guido Mantega of Brazil pointed out, it is often the poorest who were hurt the most in the spillovers from QE.

I propose then that the duty of non-harm must first and foremost be strictly observed where situations of "radical inequality" exist. This category was developed by two political philosophers, Thomas Nagel and Thomas Pogge. (Nagel 1977; Pogge 2005) The "radically unequal" by their account are individuals and groups living at the margins of society who are not only far worse off than those around them but often only barely surviving - in a state of permanent jeopardy. The least disruption in the economic order, such as a shock to the monetary system causing food prices to rise or essential goods to become unavailable, could be potentially life threatening.

Nagel characterized the condition of the worst off in terms of a "radical inequality" in the following way. The radically unequal are very badly off in absolute and relative terms--very much worse off than others. This radical inequality is *pervasive* and involves all aspects of life; and is *impervious* as most of the better-off have no real idea of what it is like to live in that way. Importantly, this inequality is *avoidable*, meaning that the better off are capable of improving the circumstances of the worse-off without becoming badly off themselves (Nagel 1977).

Given the criterion "badly off in absolute terms and in relative terms," Pogge suggests that the condition of radical inequality would inarguably apply to those who entirely lack the basic amenities of food, clean water, health care etc. And he cites World Bank studies that specifically identify this group. The last criterion of the radically unequal, that the better off must be fully capable of improving the circumstances of the worse-off without becoming badly off themselves, seems fully realizable given the disparity between \$1-\$2 for the worse-off and \$75 per day at the top (Pogge 2005, 29).

Furthermore, the principle of non-harm would put these radically unequal ahead of those for whom one is most responsible in normal circumstances. For example, the Fed would have to measure the harms to the poorest worldwide as it decided what level of unemployment level in the US is acceptable when continuing the policies pushing for lower levels of unemployment might cause serious, even life threatening, harms to the radically unequal.

Another point to consider in according special protection to the radically unequal is that the numbers of the world's poor described as "radically unequal" under this framework are evidently not a part of the upside of the global economy and are likely to receive little if any benefits from Fed policies designed to grow the global economy. Yet, they seemingly are most likely to be harmed disproportionately on the downside, such as Mantega's IMF testimony suggests.

Much more could be said in filling out each of the conditions of radical inequality and giving specific examples, but this seems sufficient for our purposes of introducing a Fed duty of non-harm.

3.4. Duty of Beneficence – the Greater Good - Making things better for all

⁶Thomas Pogge (2005, 29) citing UNDP, Human Development Reports 1999-2003 (New York: Oxford University Press).

The prima facie duty of beneficence would encompass the Fed's economic utilitarian goal of maximizing economic welfare as indicated in Bernanke's own words.

"... there is a greater good here which is the health and recovery of the U.S. economy. And for that purpose we have been keeping monetary policy conditions accommodated and trying to support recovery..." (Bernanke 2012).

"This policy not only helps strengthen the U.S. economic recovery, but by boosting U.S. spending and growth, it has the effect of helping support the global economy as well." (Reuters 2012)

The Fed monetary policy actions already observe this duty when they seek to achieve the greater economic good. Thus, the prima facie duty of beneficence is clearly the most natural and comfortable duty for the Fed as an economic institution to fulfill. However, there are a couple critical points to make.

The first point has to do with the need to examine Bernanke's claim that ensuring the recovery of the US economy automatically means a benefit to the global economy. Whether the Fed actually promoted global economic welfare and fulfilled its duty of beneficence in the financial crisis as it claimed is not clear on the evidence. The US GDP recovered from -3.8% in 2009 to 1.9% in 2010 and to roughly 3% in 2019. The global economy also registered growth GDP rising from -.7% in 2009 to 4.9% in 2010 and now at the 3.5% range in 2019. These GDP results would suggest that against its own standards the Fed has met its duty of improving economic welfare. Even outspoken critics of the Fed agreed that despite the risks and harms, the initial Fed policy actions were initially needed and fully justified (Rajan 2014a). Based on the evidence post financial crisis it could be argued that the Fed did meet its obligations under the duty of beneficence.

However, despite benefits to the global economy in the aggregate, not everyone was benefitting. We have already seen that in the period soon after the initiation of ZIRP and QE1, there immediately began to emerge evidence of the adverse effects in the EME of U.S. monetary policy. The studies showed that the policy benefits to the US were provided at the expense of causing harm to a great many people. Prices of necessity commodities rose precipitously. The cereal import bill of the periphery eighty-two lowest-income countries doubled between 2006 and 2008 (McCalla 2008, 1). Subsequent research confirmed the linkage of effects in the EME to the unprecedented Fed policies. This research also showed that the Fed policies were only providing a few tenths of percent in GDP to the global economy, so there was no great support to the global economy as claimed by Bernanke (Miranda-Agrippino and Rey 2018). So there are legitimate questions whether Fed actions in the financial crisis did measure up even in fulfilling the duty of beneficence and promoting the global economic welfare over the longer term. In retrospect, the US-centric perspective and the focus on aggregate measures blind the Fed to the fact that it fell short in promoting the greater good in global terms. The point underscored by the Ross framework is that although a case were made that the policies of ZIRP and OE1 were initially the right thing to do under a duty of beneficence, as US and global economic conditions improved, the duty of beneficence itself was no longer the "duty proper." The circumstances and conditions

_

⁷ Neely (2011), Rey (2103), Landau (2013), Ghosh et al (2012), Koepke (2015).

required a reassessment and a consideration of other duties such as the duties of justice, non-harm or reparation.

The second critical point is the need for expanding the definition of the greater good. Bernanke speaks of a "greater good" but immediately defines it solely in terms of economic goods and the economy. At present economic welfare is measured by Gross Domestic Product (GDP) and used by the central banks, with the aggregative growth of GDP in goods and services being the specific way that the Fed defines greater good. But aggregative economic welfare is not necessarily the best way of defining the greater good and overall betterment of mankind. For example, the conversations around the idea of maximizing human capabilities proposed by Amartya Sen represent an alternative strain of thinking about human welfare goals (Sen 1987). There is also the concept of "ideal" utilitarianism where the good to be maximized could be defined even more broadly in non-hedonistic terms, such as improving cultural and aesthetic experiences and societal relationships. The overall important point is that in defining the prima facie duty of beneficence thought must be given to how it might be measured differently by the Fed in order to achieve betterment of mankind and greater good goals. The need for a new definition to partially replace or supplement GDP in monetary policy discussions deserves immediate attention, especially as the goal of continued maximum economic growth clashes with the climate science findings of significant damage to the planet if global growth proceeds at the current pace.

3.5. Fidelity - Respect for Institutional Purpose, Practices and Traditions

The prima facie duty of fidelity consists of remaining faithful to the institutional purposes as reflected in the charter and history of the Fed and to its established special relationship in a global monetary system that is based on the US dollar. The Fed has claimed it is not central banker to the world. However, critics maintain that as dominant actor in the monetary arena and manager of the global reserve currency that its institutional responsibility should extend to all holders of the US dollar.

The duty of institutional fidelity is an expression of the critical role that central bank plays as a constraint on its government's potential abuse of the power that goes along with power to create money (Dunn 2000, 261). This original purpose and traditional role of a central bank is the protection of the currency value (Finkelstein 2009, 150). For the Fed as manager of the dominant reserve currency, the duty of fidelity to preserve currency value extends to all who hold the Fed's promissory notes.

The Fed's duty of fidelity is in large part based in its global hegemonic role and its position as steward of the dominant reserve currency for the global economy. With the dollar representing 65% of world reserves (US Treasury Direct, IMF COFER) and 90% of global financial transactions amounting to \$3 quadrillion per year (BIS 2015), the Fed's policies govern economic activities not only of the U.S. but also of the entire global economy.

The nub of the critics' arguments is as follows. This currency relationship between the Fed and all holders of the US dollar gives rise to a contractarian obligation that the Fed should be faithful to its principles for all those who hold the currency. The US dollar is a Federal Reserve Note, in itself a binding promissory note, a contract of indebtedness between the Fed and the note holder that should be seen as a strict obligation. The obligations of fidelity and trust in its currency fall heavily on the Fed because the US dollar is accorded a

'privileged' place in the monetary system. Research has shown reserve currency status conveys numerous benefits - seigniorage revenue, safe haven status and settlement of major global commodity and commercial transactions - thus ensuring a high demand for US dollars and enabling the United States to fund its activities readily and cheaply (Dobbs et al. 2009). These analyses point to the substantial benefits of the reserve currency privilege that the US enjoys are a result of having the peoples of the world confident in holding its fiat currency. This exorbitant privilege arguably entails an equally outsized moral duty of fidelity.

As dominant actor the Fed sets the rules of the game and the other members of the monetary system must organize their economic affairs accordingly in reliance on the Fed's constancy and faithfulness to those rules. The Fed's dominant position and principled stand against beggar they neighbor policies represent implied promises of the Federal Reserve to the members of the global monetary system. The Fed had never before experimented with zero interest rates and trillions in quantitative easing and when they did so unexpectedly this had capital surge and spillover effects that caused much turmoil in the EME. Thus when Rajan criticized a Fed monetary policy that "moves toward extremely and unconventionally accommodative policies" (Rajan 2014c, 2), he was bringing to the fore the fact that understood conventions - or 'precedental rules' - had been broken. Viewed against a duty of fidelity, this is a charge of institutional infidelity and breach of trust.

Basically, the institutional duty of fidelity of the Federal Reserve, then, is to eschew any abuse of the ability to issue notes at will and depreciate the currency. The Fed critic's complaint that the effects of QE and ZIRP in excess dollar liquidity and capital surges were tantamount to a claim that the Fed was in effect creating currency at will. The initial result was a depreciated US dollar and corresponding appreciation in the EME currencies with the resulting asset booms and commodity price shocks, which looked and felt like the Fed was breaching its promise of stable currency values.

Recalling that Bernanke thought the other countries had to look out for themselves and the critics saying that the Fed was not paying attention, a claim that these policies were implemented with insufficient regard for the other members of the global monetary system to whom it owed a duty of fidelity seems warranted.

Bernanke defended these extreme and unprecedented actions with claims that he was honoring the higher duty of beneficence that what he did for the US was actually good for the EME as well. "An unconventional monetary ... it's in everyone's interest to have the U.S. economy growing faster" (Anand and Bellman 2014). But we have already seen that Helene Rey examined this claim and found only a small benefit to the global economy. Thus it is questionable whether the continuation of the unconventional policies can be defended against charge of breach of trust or privilege on the basis of fulfilling its duty of beneficence.

This expectation of adherence to a broader duty of fidelity and the implicit promise of a reserve currency bank to those in the global monetary regime who hold its currency can be heard in the references to reserve currency status of the Fed critics such as Guido Mantega, Jose Ocampo, R. Rajan and Helene Rey. The essential point is that the US dollar and the Fed, as the "centre bank," are basically in control of global monetary system and must take all countries into account in setting monetary policy (Rey 2013). When that currency is the reserve currency of the global economy, the duty of institutional faithfulness extends to the

world at large, binding the global monetary regime and economy together. A steady faithfulness to the new rules of the game that take these moral duties into account would have an important benefit for the world. It nurtures the mutual understandings and trust needed for a cooperative approach to central banking that would lead to a more stable and fair global monetary system.

Observing this duty of fidelity has its rewards. The willingness to hold the US dollar that has been generated was hard earned through a recognition of its moral responsibility. A continuing commitment on the part of the Fed to honor this duty and take into account the full consequences of its monetary policies is essential to maintaining that trust.

3.6. Justice

Justice may seem an unusual duty to propose for a central bank. However, the commentary from Fed critics consistently refers to implicit standards of justice that the members of the monetary system expect the Fed to adhere to. Rajan's criticism of Fed policies "... where the benefits are largely domestic, while the costs fall largely abroad,..." is fundamentally a claim based on norms of distributive justice. He and others are simply saying it is unjust for the US to get the benefits and the rest of the world, especially the periphery EME countries, to bear the burdens. There is thus a strong justice component throughout the Mantega, Rey and Rajan critiques.

The critics are in essence attempting to force into Fed deliberations the larger distributive justice questions of how much and which "others" from the 'rest of the world' should count in a Fed monetary policy decision. To paraphrase their challenge, they are asking the fundamental questions whether a single country's (US) domestic interests or a single measure of greater good (GDP) can any longer be a morally acceptable priority in a globalized economy. GDP growth, inexpensive housing finance and low unemployment levels of the U.S. or even providing for the general aggregated good of the global economy are no longer justified as the actual duty of beneficence without taking the duty of justice into account. As the Fed operates in an increasingly globalized world, the duty of justice will present its deepest moral challenge in setting monetary policy.

Within the debate whether justice is a duty applicable to a national institution like the Fed, there has been a fundamental debate among theorists over whether an amorphous concept like global economic justice is even a viable standard. The debate is between the two basic schools of thought on justice in the international realm, the "statists" who say there can be no global justice standard and the "cosmopolitans" who say justice is a universal norm and applies across borders.

The Bernanke Fed in proclaiming that the Fed is not central banker to the world and that the US economy and citizens of the US are its only constituency has essentially adopted the 'statist' position. The critics of the Fed in pointing to spillovers and unfair burdens are essentially saying that the "cosmopolitan" notion of justice is applicable in monetary system matters. They are implicitly asserting that global economic justice is a universal binding moral standard on central banks, especially the Fed, irrespective of institutional jurisdiction or geographic boundaries (Beitz 2005, 17). I would argue that the cosmopolitan account is the appropriate standard for a duty of justice in our proposed framework for central bank decision making in a globalized economy.

It might be noted that some Fed officials have already conceded that the Fed has some responsibilities across geographic boundaries, a cosmopolitan view of sorts. For example, there is was the statement in the era of the QE by Stanley Fischer, a recent Vice Chairman of the Fed. "In a progressively integrating world economy and financial system, a central bank cannot ignore developments beyond its country's border, and the Fed is no exception" (Fischer, 2014). Whether this is a view that will take hold in the future might be seen in the Fed actions in the next global recession or crisis.

So how might the Fed factor into its policy deliberations the merits of global equity and fairness claims? As Ross has it, the duty of justice simply requires that the benefits must be distributed fairly and that no constituency should be made to suffer more than its fair share of the burdens (Ross 1935, 19, 26). It is a tall order to evaluate the claims of a multiplicity of differently situated parties in a system as complex as the global monetary regime. So for the proposed Fed moral decision framework, the duty of justice must be somewhat limited in scope. I put the initial focus of monetary policy on making sure that at a minimum the relatively less well-off members of the global economy do not suffer an undue share of the burdens and thus are not made worse off in policy changes. And if their lot could be improved by policies that would be the preferable outcome. The idea is that there would be an overall symmetry to the framework, the duty of non-harm would protect the 'radically unequal' and the duty of justice would focus on the next tier up - the less well-off. This duty of justice thus would operate as a supplement and complement to the duty of non-harm.

As a way of thinking about how to target the less well-off I would propose the moral perspective and decision framework reflected in John Rawls's concepts of the "difference principle" and the "maximin" (Rawls, 2001, 42, 43; Rawls 1971, 60-78) These concepts would be the basis of general axioms applied by a central bank in taking account of justice claims that range across geopolitical boundaries and constituencies but not within a state where the legislative mandates would apply.

The "difference principle" that I propose drawing on Rawls would stand for the proposition that contemplated policy actions unduly favoring the better off would need to be adjusted until the proposed policy provides a proportionately greater benefit to the less well-off members of the global economy. My proposed version of Rawls's idea of the 'maximin' would take the general idea of the difference principle a step further in watching out for the less advantaged. Maximin would have it that the duty of justice would promote where possible the well-being of those who are relatively less well off toward making their prospects as great as they can be (Rawls 2001, 97-98; Rawls 1971, 152ff). These conceptions of the difference principle and maximin introduce the proper moral perspective for an institution like the Fed with a global constituency. They are proposed in the context of a cosmopolitan theory of justice designed to take the whole world into account in determining who is to be made better off and who is to be made worse off.

There may be questions from some about simply importing Rawlsian 'statist' principles developed for a specific polity and national governance structure into a global justice context. However, I would defend this application of Rawls and respond this way. First, the monetary system is essentially a global polity structure with a governance system of its own that plausibly meets statist criteria (Feldmann 2014). Second, Rawls's stipulated limits on application within a state polity don't have to be honored as I am not citing him as an

authority in backing this idea. These concepts are intuitive and common sense notions of justice that are easily adapted to wider settings, including the international monetary arena. They basically enunciate the principle that when allocating benefits and burdens, as a general matter policy officials should seek to redress existing social and economic inequalities. The general ideas behind these justice principles derived from Rawls are useful in the political economic realm of central banking where claims are often advanced on the basis of economic merit, desert or productive result and some rebalancing with justice and fairness criteria is needed.

For an economic policy institution, this duty of justice of the monetary authority operates at two levels—the country level and the individual level. So far we have discussed these duties of justice in terms of an aggregated country level, which is how monetary policy decision makers tend to look at the world. The comparison between worse off and better off is often seen to be between advanced and developing countries in the aggregate. For example, the average food budget for a household in a typical developing country is cited as 20% of household income, whereas it is only 8% in the advanced country.

However this aggregated perspective whereby countries not sub-groups or individuals are the focus still overlooks even deeper justice issues. The food budget as a per cent of income in the worse off in the developing countries is considerably higher than 20% -more like 50% to 60% for the lower quintiles. For the Indian agricultural laborers who comprise over half the country's population, for example, the food budget is 67% of annual income (Dasgupta et al. 201, 14). For this group in India and other EME countries the food price shock produced by the QE and ZIRP policies was devastating. This gives some idea of the reason that a commodity food price shock on the poorest was of such great concern to critics like the Brazilian finance minister Guido Mantega. The duty of justice takes on a greater urgency when taking a sub country point of view where the true plight of the less well-off is taken properly into account.

In the final analysis, individuals must be considered the ultimate constituents of the global institutions. The appeal and importance of focusing on the individual lies in the hard to dispute moral intuition that each individual has equal worth or, as Thomas Pogge has put it, "that each and every human being has a global stature as the ultimate unit of moral concern" (Pogge 2002, 169). It is important to maintain this perspective because counting each person avoids calculations like "net benefits exceed net burdens" that economists (and the Fed itself) are known to use. This "net benefit" idea deems an action justified, or morally acceptable, because the global economy is benefited on an aggregated and "net" basis. Vulnerable individuals and sub-groups are, like elephants in the room, too easily overlooked.

3.7. Reparation

Alongside the duties of non-harm and cosmopolitan justice that would address policies for the future, there would be an additional duty focusing on past injustices and harms, the duty of reparation. Under Ross's scheme, the prima facie duty of reparation is to redress wrongs and harms that one's actions have caused in the past (Ross 1935, 21). This idea of repair I propose is not, strictly speaking, a duty of reparation in the Ross sense as it would be impossible for the Fed to make up for all damages it may have caused. Under my idea of the

duty of reparation, the Fed would have a moral responsibility to cease and where possible reverse monetary past policy actions that were subsequently found to have harmful or unjust consequences. The duty of reparation that I propose would thus include but go further than what Thomas Pogge has referred to as an intermediate duty of justice, "to avert harms that one's past conduct may cause in the future" (Pogge 2005, 134). I would also propose using policy making opportunities to construct policies that would help remediate the harmful effects of past policy actions.

Although the limited concept I propose would not entail a positive duty to redress all harms and injustices caused in the past, that doesn't mean an institution shouldn't be expected for moral reasons to do whatever it can to recognize previous harms and not only avoid these in the future but, as the opportunity arises, do what it could to repair the damage. Under this idea of reparation, the Fed should actively seek to identify and acknowledge harms of past policies employing puffed out causation theories and take special care in ceasing and reversing harmful policies. The Fed should not be denying responsibility and overlooking the elephant in the room as critics have complained.

Drawing from the criticisms of the Fed, I offer the five prima facie duties or rule-based decision principles: non-harm, fidelity, beneficence, justice, and reparation. The duty of *non-harm* would protect individuals that exist at the margins. The duty of *fidelity* would respect institutional purposes and rules of expected behavior. The duty of *beneficence* would focus on the greater good and bettering the lot of humankind. The duty of *justice* would fairly and equitably allocate the benefits and burdens of monetary policies. The duty of *reparation* would redress wrongs and reverse harmful effects of past policy actions.

With a relentlessly empirical, pluralistic Kantian/consequentialist system in light of the prima facie duties, the major challenge for the decision-maker is then to apply the framework and sift the facts carefully to see which one emerges as the "actual duty", the "duty proper", or what Ross also called "greatest duty" in the particular circumstance.

4. CHALLENGES IN APPLYING THE FRAMEWORK: A PROCEDURE FOR DECIDING AMONG COMPETING DUTIES

The decision process I describe may seem imprecise and wooly headed if compared to the apparent precision of the simplified, modeled world of filtered data and elegant mathematical formulae that contemporary economists prefer to deal in. But in the formalist decision procedures, there is no place for the complexities of the 'whole nature of the situation' of the world we live in. We have only a calculated reality that only holds as long as the artificial conditions of the modeled world can be sustainably imposed. So Ross' s insistence that a complex theory that fits the facts is better than one that is simple is a practical real world approach for the Fed despite any apparent imprecision.

If Ross's system is to be viable in practical policy-making, the decision maker must understand the intuition-based process by which the duty proper is discerned. As Ross carefully put it, the decision or act 'arises from but is not grounded in the facts' (Ross 1935). The action is grounded in the self-evident prima facie duties. This seems a fine distinction but on reflection this careful formulation puts an emphasis on the duty to be performed - not on the empirical consequences- as the motivation for action. Doing one's duty is the only

morally proper motivation for action according to Ross who follows Kantian thinking closely here. This Ross formulation gets away from reliance in utilitarian logics on the facts and the conditions of future consequences as the motivations of ones actions and decisions.

Ross had a lot to say about how one decides among the competing prima facie or conditional duties but we can only cover a few concepts here. It is mostly about having confidence in one's intuitional and qualitative judgment faculties to comprehend the fundamental moral priorities that arise from the facts.

The prima facie duties arise by intuition - they are self-evident according to Ross. To repeat, because it is important, Ross compared a moral intuition to a mathematical intuition or an inference in logic.

[A prima facie duty] is self-evident just as a mathematical axiom, or the validity of a form of inference, is evident. The moral order expressed in these propositions is just as much part of the fundamental nature of the universe ... as is the spatial or numerical structure expressed in the axioms of geometry or arithmetic. In our confidence that these propositions [of prima facie duties] are true there is involved the same trust in our reason that is involved in our confidence in mathematics... (29-32)

Although Ross believed that prima facie duties are self-evidently true and that we can trust our reason to tell us so, still the discernment of a particular duty in a particular circumstance is not immediately self-evident and requires mental effort and empirical analysis. Ross admits that a particular duty is not logically derived from self-evident principles.

[A] judgment about a particular duty is not a logical conclusion derived from (or justified by) self—evident principles." (31)

Nor, he admits, is there a definite or overriding general rule for deciding among competing prima facie duties.

"...there is no definitive principle by which we can draw the conclusion that it is on the whole right or on the whole wrong." (31)

....For the estimation of the comparative stringency of these prima facie obligations no general rules can, so far as I can see, be laid down. (31)

Although there is not a general rule or definitive principle, the discernment of the "duty proper" is still a matter of reliable intuitive judgement according to Ross. It arises not from the pure reason but from practical reason involving an assessment of the whole nature of the situation and an active insight into the moral order of the universe (34). Ross recognizes that practical reason can err in its interpretation of the facts and so he is modest in his claims. A judgment is not *necessarily* entirely right or "on the whole right," as Ross puts it. The best judgment that the decision maker is able to form is what Ross calls a "considered opinion" or what he calls at another point a "probable opinion" of the duty proper (31). (One thinks here of Keynes's emphasis on probability.) A considered opinion is not a "logically justified conclusion from general principles recognized as self-evident" (31). It is, rather, "what we think is the best we can do" (40) "based on all the evidence available to [us]" (41). The idea is that a particular act moves from being merely *prima facie* duty to being the 'duty proper' and actually right for that particular circumstance as one has relentlessly examined the facts.

But even then it is actually right only in a particular factual configuration and could still change over time if the facts change and new information and evidence becomes available.

Although he lays down no set framework, Ross gives a picture of the mental process that he envisions occurring in selecting among conflicting prima facie duties. The decision would be a balancing act among competing considerations and duties. Under Ross's explanation, the moral intuition emerges after looking at the facts and "balancing" the competing duties to find the right act, "...[R]ight acts can be distinguished from wrong acts only as being those which have the greatest balance of prima facie rightness" (Ross, 41).

Ross also uses other terms like "fitness and correctness" to represent the connection between the circumstances and the "right" thing to do.

"...common use of the word 'right' naturally conveys ... simply the notion of fitness or correctness..." (Ross 1939, 55).

Ross also uses the idea of suitability to explain rightness and fittingness, saying at another point, the right thing to do is that act with "the greatest amount of suitability possible in the circumstances" (Ross 1939, 54).

At another point, perhaps providing the best insight into his view of the process of careful moral discernment, Ross compares moral judgment between prima facie duties to a judgment of beauty. Here he invokes the idea of harmony and describes how he thinks the mental process of judgment in aesthetics works, calling to mind Kant's ideas in his Critique of Judgment. As Ross puts it:

There seems to be something not altogether different from the way in which a situation calls for a certain act, and the way in which one part of a beautiful whole calls for the other parts. ...there is a direct harmony between the parts of the composition, as there is between a moral situation and the act [duty] which completes it (Ross, 1935, 54).

It is in this act of balancing, fitting and harmonizing the facts of a situation to the moral act which completes it that the moral order is revealed in a particular situation.

There is an important shared feature of the concepts of balance, fittingness and harmony. They keep both the qualitative and quantitative elements fully and simultaneously engaged in the moral decision process. Balance has in one sense a physical and mathematical equivalency sort of connotation—something we set upon a scale or objects held in each hand and weighed one against the other. It is also qualitative as when we "balance' something in our minds, we weigh one set of thoughts and considerations against the other. Fittingness also has a mathematical sort of geometric connotation; such as the round peg fitting the hole. And fit is also a qualitative term and used in aesthetic contexts, such as an object "fitting" into the picture. Harmony is also used in both qualitative and quantitative ways. As an aesthetic term as Ross uses it here there are qualitative judgments in art and design recognizing the harmony in composition as colors and lines. But harmony is also a quantitative even mathematical term in the visual arts as the physics of color as well as the Golden Ratio of Leonardo Da Vinci or the Hogarth line would indicate.

As quantitative and qualitative judgments are two distinct and complementary modes of

practical reasoning it seems that in his choice of terms of judgment Ross seeks to incorporate both modes of thinking into the moral intuitive judgment process. The categories of balance or fittingness are not to be pinned down in a deductive, logically conclusive or quantitatively determined mode. However, Ross emphasized that although a judgment is not a logical deduction, "[t]his....does not, however, make the doing of our duty a mere matter of chance" (31). There is a moral order in the universe in Ross's Kantian system. The moral order gives rise to and is maintained by the observance of the prima facie duties, which Ross avers that upon reflection and employment are readily revealed as true and self-evident.

The decision process I have described may seem at once intricate and imprecise. But I would argue that Ross's conception of an active moral intuition discerning among the prima facie duties to express the moral order is an essential complement to economic decision-making in institutions like the Fed. It balances out the mathematical formalism of modern economics where the allures of utilitarian logic and illusions of numeral precision dominate a policy decision-making approach oblivious to the imbalances and disharmony it may wreak in the moral and social order.

5. CONCLUDING THOUGHTS

As we live in a time of a mathematical formalism, Ross's concerns about utilitarian thinking and his emphasis on duties like justice and fidelity represent a much needed broadening of the moral perspective for policy institutions like the Fed whose decisions have an enormous impact on the people of the world.

There are many features of this adaptation of Ross's moral decision system that recommend it as a policy decision-making framework for the Fed. It takes the whole nature of the situation into account with a broad theory of causation, a thick theory of recognition and a proper probability analysis of the harms and potential for success. It puts moral considerations up front and out in the open and ensures that policy decisions are justified against broad justice criteria. The normative preferences of the decision makers are up front and explicit and do not remain hidden away in the assumptions and inputs of the econometric models. It is moral or "other regarding" in the broadest sense as it brings the special obligations and special relations to all "others"-past, present and future, near and far--into the policy decision mix.

Ross' system is consequence-sensitive and circumstance-dependent but it places emphasis on the duties inherent in preserving the moral order. The decision *arises out of the facts* and thus empirical conditions are the focus of the assessment. However, *the decision must be grounded in the duties* of non-harm, justice, fidelity, beneficence and reparation. Recognizing that circumstances change, Ross acknowledged that moral priorities might also change thereby providing the flexibility and discretion that decision makers insist on. However, discretion remains bounded and contained.

Viewing the responsibilities of the Fed systematically in terms of Ross's framework would help ensure a continual focus on the moral status of "others" as units of concern, and prevent the Fed from overlooking the elephant in the room and the consequences of its policies on real people.

This framework certainly does not make the work of the Fed simpler, but again, referencing

Ross, 'it is more important that a theory fit the facts than that it be simple.' Dealing with the facts of the world is the moral burden of a globally dominant institution like the Fed, and the reciprocal moral responsibility of the privilege it enjoys as the hegemonic reserve currency bank.

REFERENCES

Ahmed, Shaghil and Andrei Zlate. 2014. "Capital Flows to Emerging Market Economies: A Brave New World?" *Journal of International Money and Finance* 48: 221–248.

P Allan and A Keller, 'Is a Just Peace Possible without Thin and Thick Recognition?' in T Lindemann and E Ringmar (eds.) *The International Politics of Recognition*. Paradigm Publishers, Boulder, CO, 2007)

Anand, Geeta, and Eric Bellman. 2014. "Rebuttal for Rajan: Bernanke Defends U.S. Policy." *India RealTime*. April 15. http://blogs.wsj.com/indiarealtime/2014/04/15/ rebuttal-for-rajanbernanke-defends-u-s-policy-in-visit-to-mumbai/.

Atwell, John. 1969. "What Is the Accordion Effect Thesis?" *Philosophical Quarterly* 19, no. 77:337–42.

Blackden, Richard, and Harry Wilson. 2011. "Fed Chief Ben Bernanke Denies US Policy Behind Record Global Food Prices." *Telegraph*, February 3. http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/8302111/ Fed-chief-Ben-Bernanke-denies-US-policy-behind-record-global-food-prices.html.

Bernanke, Ben. 2010. "Implications of the Financial Crisis for Economics". *Lecture at the conference co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance*, Princeton, New Jersey, 24 September. https://www.bis.org/review/r100929a.pdf

2012.	"U.S. Monetary	Policy and	l International	l Implications."	' Speech ii	ı Tokyo
Monetary	Conference.			October		14.
http://www.fed	<u>eralreserve.gov/r</u>	ewsevents/s	peech/bernank	<u>te20121014a.ht</u> ı	<u>n</u>	
2013.	"Monetary Polic	y and the Glo	obal Economy	." Speech at the	e London S	chool of
Economics.	March	25.	http://ww	ww.federalreserv	ve.gov/new	sevents/
speech/bernank	e20130325a.htm					
2015a.	"Federal Reserv	e Policy in a	ın Internationa	al Context." Pap	er presente	d as the
Mundell-Flemi	ng Lecture at the	16th Jacque	s Polak Annua	al Research Con	nference Ho	osted by
.edu/~/media/B	nal Monetary logs/Ben-Bernar BROOKINGSB	ke/2015/11/	04-fed-policy-		p://www.br	ookings

______. 2015b. "Federal Reserve Policy in an International Context." Paper presented as the Mundell-Fleming Lecture at the 16th Jacques Polak Annual Research Conference Hosted by the International Monetary Fund. November 5. http://www.imf.org/external/np/res/seminars/2015/arc/pdf/ Bernanke.pdf.

_____. 2016. "What did you do in the Currency War, Daddy?" *Ben Bernanke's Blog*. January 5. http://www.brookings.edu/blogs/ben-bernanke/posts/2016/01/ 05-currency-wardaddy.

BIS (Bank for International Settlements). 2015a. "Statistics on payment, clearing and settlement systems in the CPMI countries—Figures for 2014." Preliminary release. September. http://www.bis.org/cpmi/publ/d135.htm.

Blackden, Richard, and Harry Wilson. 2011. "Fed Chief Ben Bernanke Denies U.S. Policy behind Record Global Food Prices." *Telegraph Online*. February 3. http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/8302111/ Fed-chief-Ben-Bernanke-denies-US-policy-behind-record-global-food-prices.html.

Bowman, David, Juan Londono, and Horacio Sapriza. 2014. "U.S. Unconventional Monetary Policy and Transmission to Emerging Market Economies." *International Finance Discussion Papers* 1109. June. Washington, DC: Board of Governors of the Federal Reserve System.

Bratman, Michael. 2006. "What Is the Accordion Effect?" *Journal of Ethics* 10, no. 1/2:5–19

Bruno, Valentino, and Hyun Song Shin. 2015. "Capital flows and the risk-taking channel of monetary policy." *Journal of Monetary Finance* 71 (April):119–32.

Caruso-Cabrera, Michelle. 2014. "Banker showdown: Bernanke tells off India's Rajan." *CNBC News*. April 10. http://www.cnbc.com/2014/04/10/banker-showdown-bernanke-tells-off-indias-rajan.html.

Dasgupta, D., R. N. Dubey, and R. Sathish. 2011. "Domestic Wheat Price Formation and Food Inflation in India: International Prices, Domestic Drivers (Stocks, Weather, Public Policy), and the Efficacy of Public Policy Interventions in Wheat Markets." Working Document No. 2/2011-DEA, Department of Economic Affairs, Ministry of Finance, Government of India. 1–56. http://mpra.ub.uni-muenchen.de/31564/.

Davidson, Donald. 2001. Essays on Actions and Events. Oxford: Clarendon Press.

Davis, Owen. 2015. "How Do U.S. Interest Rate Hikes Affect Emerging Markets?" *IBTimes*. September 17. http://www.ibtimes.com/how-do-us-interest-rate-hikes-affect-emerging-markets-2102118.

Dobbs, Richard, David Skilling, Wayne Hu, Susan Lind, James Manyika, and Charles Roxburgh. 2009. "An exorbitant privilege: implications for reserve currency competitiveness." *McKinsey Global Initiative—McKinsey Global Institute*. http://www.mckinsey.com/insights/economic_studies/an_exorbitant_privilege.

Dunn, John. 2000. The Cunning of Unreason, HarperCollins, NY, 2000

Edwards, Sebastian. 2015. "Monetary Policy Independence Under Flexible Exchange Rates: An Illusion?" National Bureau of Economic Research. Working Paper 20893. https://www.nber.org/papers/w20893.

Eichengreen, Barry. 2012. Exorbitant Privilege: The Rise and Fall of the Dollar. New York: Oxford University Press.

ENS Economic Bureau. 2014. "Bernanke, Rajan face-off over U.S. QE spillover: RBI Governor has called for more global coordination in monetary policy and creation of a

'safety net.'" *ENS New Delhi*. Updated: April 12, 1:29 AM. http://indianexpress.com/article/business/business-others/ bernanke-rajan-face-off-over-us-qe-spillover/.

Feldmann, John. 2012. "The Fed as a Moral Enterprise." *Soundings: An Inter Disciplinary Journal*, 95, no. 4:420–51.

_____. 2014. "The Federal Reserve, the Global Monetary Regime, and Real-World Economic Justice", *Soundings: An Interdisciplinary Journal*, Volume 97, Number 2, 2014, pp. 131-168

______. 2016. "Causation and Consequences in Monetary Policy: Federal Reserve Policies Based on an Inadequate Theory of Causal Responsibility", *Soundings: An Interdisciplinary Journal*, Volume 99, Number 3, 2016, pp. 321-366

_____. 2017. "The avoidance of monetary system conflict: A role for recognition theory in reconstituting the global monetary system", *Global Constitutionalism* (2017), 6:3, 442–476 © Cambridge University Press

Feinberg, Joel. 1970. Doing and Deserving. Princeton: Princeton University Press.

Finkelstein, Andrea Lynne. 2009. *Harmony and the Balance: An Intellectual History of Seventeenth-Century English Economic Thought*. Ann Arbor: University of Michigan Press.

Fleming, Michael, and Nicholas Klagge. 2010. Federal Reserve Bank of New York, Current Issues 14, no. 4: April 20. www.newyorkfed.org/research/current_issues.

Fratzscher, Marcel. 2009. "What Explains Global Exchange Rate Movements During the Financial Crisis?" *Journal of International Money and Finance*. 28, no.8: 1390–1407.

Fratzscher, Marcel, Marco Lo Duca, and Roland Straub. 2013. "On the International Spillovers of US Quantitative Easing." *Working Paper Series 1557*, European Central Bank. https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1557.pdf

Ghosh, A., J. Kim, M. S. Qureshi, and J. Zalduendo. 2012. "Surges." *IMF Research Department Working Paper*, WP 12/22. http://www.imf.org/external/pubs/ft/wp/2012/wp1222.pdf.

Harding, Robin, and Alan Rappeport. 2011. "Fed Denies Policy Is Causing Food Rises." *Financial Times*, February 4.

Gourinchas, Pierre-Olivier, and Hélène Rey. 2007. "From World Banker to World Venture Capitalist: U.S. External Adjustment and the Exorbitant Privilege." In *Current Account Imbalances: Sustainability and Adjustment*, edited by Richard H. Clarida, 11–66. Chicago: University of Chicago Press.

Gourinchas, Pierre-Olivier, Hélène Rey, and Nicolas Govillot. 2010. "Exorbitant Privilege to Exorbitant Duty." *Institute of Monetary and Economic Studies, Bank of Japan Discussion Paper* No. 2010—E-20. http://www.imes.boj.or.jp/research/papers/english/10-E-20.pdf.

Harding, Robin, and Alan Rappeport. 2011. "Fed Denies Policy Is Causing Food Rises." *Financial Times Online*. February 4. http://www.ft.com/intl/cms/s/0/5c4ae- aea-2fbd-11e0-91f8-00144feabdc0.html#axzz43oyYPS2p.

Harsanyi.1975. "Can the Maximin Principle Serve as a Basis for Morality? a Critique of John Rawls' Theory, *American Political Science Review* 69, 2 (June 1975), pp. 594–606

Hart, H. L. A., and A. M Honore. 1985. *Causation in the Law*. 2nd edition. New York: Oxford University Press.

Hausman, Joshua, and Jon Wongswan. 2011. "Global Asset Prices and FOMC Announcements." *Journal of International Money and Finance* 30: 547–571.

International Monetary Fund International Monetary Fund). 2015. "Currency Composition of Official Foreign Exchange Reserves 2012–2015." http://data.imf .org/?sk=E6A5F467-C14B-4AA8-9F6D-5A09EC4E62A4.

Index Mundi. n.d. "Global GDP Growth." http://www.indexmundi.com/g/g .aspx?c=xx&v=66.

Inman, Philip. 2010. "U.S. accused of forcing up world food prices." *Guardian Online*. November 5. http://www.theguardian.com/business/2010/nov/05/ us-accused-of-worsening-price-rises.

Kennedy, Simon, Joshua Zumbrun, and Jeff Kearns. 2013. "Fed Officials Rebuff Coordination Calls as QE Taper Looms." *Bloomberg*, Personal Finance, August 26. https://www.bloomberg.com/news/2013-08-25/fed-officials-rebuff-coordination-calls-asstimulus-taper-looms.html.

Keynes, J.M. 1921. A Theory of Probability, Macmillan & Co. London

Koepke, R. 2015. 'What Drives Capital Flows to Emerging Markets? A Survey of the Empirical Literature", *IIF Working Paper, Institute of International Finance*, Washington, DC, April

Krichene, Noureddine. 2008. "Recent Inflationary Trends in World Commodities Markets." *Working Document, International Monetary Fund*, WP/08/130. May.

Landau, Pierre. 2013. "Global Liquidity: Public and Private." *Paper presented at the Jackson Hole Conference*. August 31. http://www.kc.frb.org/publicat/sympos/2013/2013Landau.pdf.

Little, David, Sumner B Twiss, 1978. *Comparative Religious Ethics: A New Method*. NY Harper & Row.

Mantega, Guido. 2011. *International Monetary and Financial Committee, Statement by Guido Mantega Minister of Finance, Brazil*; On behalf of Brazil, Colombia, Dominican Republic, Ecuador, Guyana, Haiti, Panama, Suriname, Trinidad and Tobago. Twenty-Third Meeting: April 16.

——. 2012. International Monetary and Financial Committee, Statement by Mr. Guido Mantega Minister of Finance of Brazil; On behalf of the Constituency comprising Brazil,

Colombia, Dominican Republic, Ecuador, Guyana, Haiti, Panama, Suriname, and Trinidad and Tobago. Twenty-Fifth Meeting: April 21.

McCauley, Robert N., Patrick McGuire, and Vladyslav Sushko. 2015. "Global dollar credit: links to U.S. monetary policy and leverage." *BIS Working Papers No.* 483. http://www.bis.org/publ/work483.pdf.

McKee, Michael. 2015. Commentary on Bloomberg TV. November 4.

Mackintosh, J. 2013. "The Short View." Financial Times, Europe ed., August 20.

McCalla, Alex. 2008. "World Food Prices: Causes and Consequences." Fellows *Address before the Canadian Agricultural Economics Society, Quebec City*, August. www.kysq.org/docs/McCalla.doc.

Melloan, George. 2011. "Federal Reserve Policies Causing Turmoil Abroad." *Wall Street Journal Online*. February 23. http://online.wsj.com/news/articles/SB10001424052748704657704576150202567815380.

Mercopress. 2011. "U.S. Printing Press Is Flooding the World with Dollars, Claims Mantega." http://en.mercopress.com/2011/05/03/us-printing-press-is-flooding-the-world-with-dollars-claims-mantega.

Miranda-Agrippino, Silvia, and Hélène Rey. 2012. "World Asset Markets and Global Liquidity." *Speech presented at the Frankfurt ECB BIS Conference*, London Business School. February.

Miranda-Agrippino Silvia, Hélène Rey 2019 The Global Financial Cycle Working Paper Revised March 2019

http://www.helenerey.eu/AjaxRequestHandler.ashx?Function=GetSecuredDOC&DOCUrl=App_Data/helenerey_eu/Working-Papers_en-GB/_Documents_2017-18/224384170_67186463733_MirandaAgrippinoRey2019.pdf

Nagel, Thomas. 2005. "The Problem of Global Justice." *Philosophy and Public Affairs* 33, no. 2:113–47.

Neely, Christopher J. 2011. "The Large-Scale Asset Purchases Had Large International Effects." *Working Paper Series 2010-018C*. St. Louis: Federal Reserve Bank of St. Louis. January. https://research.stlouisfed.org/conferences/qe/Neely_--_2010-018_1.pdf.

Ocampo, Jose Antonio. 2012. "The Federal Reserve and the Currency Wars." *Project Syndicate*, October 2 http://www.project-syndicate.org/commentary/ mantega-fed-ecb-monetary-quantitative-easing-by-jose-antonio-ocampo#2DYmuGGfdB6Cl4fQ.99.

Pogge, Thomas. 2002. World Poverty and Human Rights. Cambridge, U.K.: Polity Press.

——. 2005. "Real World Justice." *Journal of Ethics* 9, no. 1/2:29–53. ——. 2011. "Are We Violating the Human Rights of the World's Poor?" *Yale Human Rights and Development Law Journal* 14, no. 2:1–33.

Rajan, Raghuram. 2014a. "Competitive Monetary Easing: Is It Yesterday Once More." *Remarks at the Brookings Institution*. April 10. http://www.brookings.edu/~/



Stoeckel, A. 2008. A. "High Food Prices: Causes, Implications, and Solutions." *Australian Government, Rural Industries Research and Development Corporation (RIRDC) Publication no. 08/100*, June.

Rogers, John H., Scotti Chiara, and Jonathan H. Wright. 2014. "Evaluating Asset-Market Effects of Unconventional Monetary Policy: A Cross-Country Comparison." *International Finance Discussion Papers 1101*. Washington, DC: Board of Governors of the Federal Reserve System. March. http://www.federalreserve.gov/pubs/ifdp/2014/1101/ifdp1101.pdf.

Warnock, Francis E., and Veronica Cacdac Warnock. 2009. "International Capital Flows and U.S. Interest Rates." *Journal of International Money and Finance* 28:903–19. http://faculty.darden.virginia.edu/warnockf/papers/WarnockWarnock_ Flows_and_Rates_JIMF.pdf.

World Bank Data. n.d. "GDP Growth." http://data.worldbank.org/indicator/NY.GDP. MKTP.KD.ZG.

Wheatley, Jonathan, and Philip Graham. 2010. "Brazil in Currency War Alert." *Financial Times Online*. September 27. http://www.ft.com/cms/s/0/33ff9624- ca48-11df-a860-00144feab49a.html.

White, William. 2012. "Ultra Easy Monetary Policy and the Law of Unintended Consequences." *Federal Reserve Bank of Dallas Globalization and Monetary Policy Institute Working Paper*, *No. 126.* http://www.dallasfed.org/assets/documents/institute/wpapers/2012/0126.pdf.

Zhang, Moran. 2012. "Bernanke Defends Fed from Claims It Is Being Selfish and Hurting Emerging Economies." *IBTimes Online*. October 12. http://www.ibtimes.com/bernanke-defends-fed-claims-it-being-selfish-hurting-emerging-economies-846263.