

**Comments on**  
**“Methods of Policy Accommodation**  
**at the Interest-Rate Lower Bound” by Michael Woodford**  
*FRBKC Economic Policy Symposium on the Changing Policy Landscape*  
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If Michael Woodford says it is daunting to present his paper in front of this distinguished audience, you can imagine how daunting it is to be the discussant of his paper, which is probably the longest paper at this conference – but a paper, typically for Mike, dense with insight. I am grateful to have this opportunity, not just to discuss this paper, but to be a participant at this year’s Federal Reserve Bank of Kansas City conference.

Perhaps fittingly, today is my last day as a central banker. I think Charlie Bean will attest that I have 4-1/2 hours remaining as a member of the Bank of England’s Monetary Policy Committee [MPC]. And having spent my entire three years on the MPC with interest rates have been at the effective zero lower bound, the subject of this paper is obviously something I have been living and breathing. While I agree with some of the conclusions that the paper comes to, I find it unpersuasive how the paper comes to them. Furthermore, the paper seems to stop short of spelling out the policy implication that it does justify. So, let me try to talk that through a bit and then draw out where I think this paper leads us to, but seems to be afraid to go, in policy terms.

On even a light reading, this is clearly a paper of two halves. The first half talks about the issue of forward guidance, the work in the spirit of the original Eggertsson and Woodford (2003) paper on the lower bound, and all of the things that Lars Svensson, among others, in the past had advocated about central bank transparency with regard to interest rate paths. Then in the second half, the paper discusses the empirical side of asset purchases, such as balance sheet effects, the portfolio balance channel,

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<sup>1</sup> At the time these comments were delivered, the author was a member of the Monetary Policy Committee of the Bank of England. None of the views expressed here should be attributed to the Bank, the Committee, its members, or to any of its staff, nor to PIIIE. I remain solely responsible for these views and any errors oversights herein.

preferred habitats for investors (although I do not think the author used that term directly), and so on, as though these are all distinct channels, separable from each other, and very distinct from the expectation effects through forward-guidance. And as we heard the existing empirical literature summarized in Chairman Bernanke's remarks earlier this morning, you can list the likely channels of QE's discernible impact in that way.

I worry that this dichotomy between forward guidance and asset purchases, while perhaps useful for research purposes, is much exaggerated in practice. There is some sense in which if a central bank policy committee is going to commit to doing something, it kind of helps to be actually doing something. And if you are going to do something, it kind of helps to explain what it is that you are doing. And so I am not sure in practical policy terms, let alone in some of the complex econometric evidence Mike goes through, that disentangling these aspects is entirely a useful exercise. In particular, what I would argue is that we always think there are multiple channels through which any monetary policy affects the economy.<sup>2</sup> That is part of the reason why Sims and Sargent recently received a Nobel Prize, for their insights into identifying monetary policy shocks, because it is always complicated to do so, the impact being always multi-faceted. And so to be saying that we are going to disentangle the impact of central bank communications from purchases, is to me, I am worried, a step backwards.

But, the almost spoken premise of the paper, as well as more explicit statements emerging from some of the public discussion of the paper and related themes, seems to be that the major central banks today must choose between further asset purchases and more explicit forward guidance *for reasons of political credibility*, not because of the underlying economics. It is as though there is a taboo of some sort that does not exist in the available data, or even in legal mandates, but in some people's perceptions of what is an acceptable means of implementing monetary policy. As I will explain, the second half of the

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<sup>2</sup> Like Mike, I am a consumer not a producer of this econometric evidence, but if you look at the relevant papers, including the Campbell et al. (2012) paper he cites at length, as well as some of the things that Chairman Bernanke mentioned, like the papers by my colleagues Gagnon, et al (2010) and Joyce, et al (2011), what you find is this work wrestles with the identification of monetary policy's impact as much as any past applied monetary economics did.

paper seems to point towards the potential effectiveness of certain kinds of asset purchases. The paper's conclusion, however, reads as though central bankers are forced to choose between breaching either some sort of boundary for political economy reasons on the nature of your forward guidance, or a more frightening boundary for political economy reasons on the nature of what asset to purchase.

If I had to choose (and up until today I did have to make such a choice on the record), I would be much more inclined to buy assets that are “non-standard” or “unconventional” than to engage verbal commitments that extend beyond established norms for the duration and specificity of monetary policy announcements. And I think, actually, that is the point that the reader should take away from this paper (especially but not only from its second half). What monetary policy through QE is acting upon, the source of whatever traction on the economy that you get, is in large part due to the imperfect substitutability of financial assets.<sup>3</sup>

So, just to go back through the empirical evidence for a moment, I think there are some really important and beneficial things in this rich paper. I love the way Mike takes apart the misguided claims by some that, if we would just expand the monetary base, so doing would be enough to stabilize the economy and prices. My first speech as a member of the MPC (Posen (2009)) was a cry against such what I termed “mechanistic monetarism,” and if we have not successfully killed that mistaken idea by now, I am glad to have this paper doing so. I also think it is crucially important that Mike brings out the idea that one reason for policy committees to make a commitment to a longer-term target is to prevent monetary policy from reinforcing self-fulfilling negative expectations. I commend Mike for formalizing that insight in some of his earlier papers.

Another key point that the paper makes, which I will come back to, is the idea that sometimes the impact of a central bank operation is going to be higher when the markets are impaired. Now, that may go without saying for a number of people here, but I think that is truly important in operational terms.

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<sup>3</sup> That is certainly what the majority of the Bank of England MPC members have argued based on our experience and investigations of the available data in real time. See Joyce (2012) and Posen (2010a, 2011, 2012).

And part of why we have defeatism about policy is because people are too quick to judge markets being unimpaired. And I fear that too many people in the current policy debate in the major economies are leaping too quickly to the idea that financial markets are beautifully functioning, and therefore QE does not have traction anymore.

It is the empirical argument and interpretation in this paper, however, with which I am quite uncomfortable. Not because the particular papers cited are wrong in any specific sense, it is more about their results are marshaled as arguments. So, much of what is said in the second half of the paper seems to be to the effect of, 'well, look, all these impacts that look like they were balance sheet effects, really when you look at them are solely forward guidance.' Yet, if you go back to the claims made in the first half of the paper regarding the impact of forward guidance, you run into worse problems trying to disentangle guidance's from purchases' impact. So look back at the Swedish case that the paper discusses in great detail, based primarily on some very interesting work by Svensson (2010, 2011). It becomes clear that the central bank employing forward guidance most explicitly and consciously as a policy instrument was subject to repeated market and public misinterpretation and even provoked reverse effects from those intended at times.

Another example is that we all know that the Federal Reserve engaged in a variant of Operation Twist, which inherently has to be acting through balance sheet composition and not anything directly about forward guidance (It would be stretching the concept beyond reasonable meaning to say it was 'forward guidance' in terms of the relative importance of long-term assets versus short-term assets rather than the transactions that mattered). And all of the empirical estimates are that the recent Operation Twist as occurred did have a meaningful effect in the ways that event studies pick up. Studies of short-term interest rates and OIS spreads and all those things that the paper cites as indicators of monetary policy's effect on expectations show that they moved as expected in this case - that seems to contradict the idea that you need the forward guidance to have an impact.

It is also very revealing to correct the omission from the paper of the evidence on the Bank of England's experience with QE since 2009 (and not just for parochial reasons). The norm or more of the MPC, at least while I have served on it (and longer as I believe Charlie Bean will attest), is that we do not give explicit forward guidance from meeting to meeting. We treat each meeting as completely *ab initio*. We do not give promises of how our policies will unfold in future. When we publish our infamous 'rivers of blood' fan charts for inflation and GDP growth projections in our *Inflation Report*, we display them based on constant interest rate projections and on market interest rate projections, but not on our own interest rate projections. Yet all the empirical work that has been done, as Chairman Bernanke cited in his talk, estimates qualitatively and in fact, to a first order, quantitatively equivalent the impacts of MPC and FOMC policies undertaken, as best can be discerned. And, to repeat, the MPC offers nothing of the type of explicit forward guidance in the sense that I understand paper advocating. So it is kind of a glaring omission not to have the Bank of England in there if one is making these kinds of inferences.

Similarly, I would interpret somewhat differently the monetary policy experience in Japan in the 1990s and 2000s that the paper touches upon (of course, I will defer to Governor Shirakawa to correct us both during the general discussion). The paper seems to characterize the Bank of Japan as pursuing mechanistic monetarism by ineffectively expanding monetary base, without any announced forward guidance, and asserts that is why the policy did not seem to work. Yet, there actually was forward guidance given by the BoJ during this period. Successive Governors from the Bank of Japan stated, "we are not going to raise rates until the rate of price increase rises sustainably above zero." There was an explicit threshold guidance of the sort that is being advocated in the paper. Governor Shirakawa is nodding, we both remember then Governor Toshihiko Fukui in 2003 explicitly making this commitment, for example. The Japanese experience with QE does clearly disabuse one of the notion that forward guidance can be easily disentangled from asset purchases or policy actions, let alone substitute for them.

In summary, by the time that one considers fairly the impact of the FOMC's twist operation, of the MPC's QE done explicitly without forward guidance, and of the BoJ's limited policy traction with

forward guidance, as well as of the unintended consequences of the Swedish Riksbank forward guidance case discussed in the paper, the evidence marshaled leads one very much to the opposite conclusion from that offered in the first half of the paper.

That said, the Japanese experience of the early 2000s may not bode well for the effectiveness of QE policies under all circumstances. Some have argued, rightly to my mind, that part of the shortfall in expansionary policy's impact in Japan was because of the emphasis of BoJ bond purchases on solely short-duration JGBs, that is due to the composition of asset purchases (McCauley and Ueda (2009)); other factors contributing to the BoJ's popularly perceived ineffectiveness in countering deflation include conflicting communications from central bank officials, offsetting fiscal and financial policies, and an underestimation of the impact of the monetary policy when pursued in 2003-06 more consistently in communications and in sync with financial and fiscal policies. (Kuttner and Posen (2001, 2004); Posen (2010c)).

But, whatever the explanation for Japan specifically, why do we have the perceived to be small response to the vast asset purchases undertaken to date by the major central banks? In a sense, that is the interesting next question, because, as the work by Bauer and Rudebusch (2011), Campbell, et al (2012), and Swanson and Williams (2012) cited in the paper demonstrates, we know that these monetary operations do have impacts through the various expected channels: the exchange rate, the OIS spread, anything an event study can tell you to look for, we find it is there. The big ticket question, the pushing on a string question, is why when we have all these immediate impacts, and on market measures of expectations, from QE in the way we would expect, does it not seem to be making the economy go, go, go? That gets you into a very different set of analyses. It gets you into the question of counterfactuals, how bad would things have been had we not done this, which is always a tricky thing to do. But that is where I think the intellectual effort of empirical research now has to be, on the understanding of why these market rates and expectations that seem to be moving in line with the desired short run or forward

looking effects of QE are not having as big an impact on the macroeconomy as we might have hoped they would. And there is legitimate debate about that.

Let me return to the second half of the paper to pick up a bit more about this issue of the imperfect substitute ability of assets, and the importance of that for QE. In his verbal presentation today, Mike said that central banks can be more effective by acting on less perfectly substitutable assets, which I think is a very important insight.<sup>4</sup> (Posen 2011) Now, there is an extended passage in the paper which goes through the implication of if we are living in something that looks like a Modigliani-Miller world, where capital structure is neutral, of course none of the preferred habitat aspects of QE matter. And then the paper goes on to argue that, even if you allow for some safety reason for some investors to be in government bills as opposed to other financial assets, that constitutes such a small deviation from the perfect substitutability world, that there is little room to think QE would have traction on this basis alone. Since it was unclear whether the paper is setting out this argument as a straw man or advocating it, let us just take that argument as it is and evaluate it empirically.

If there is one thing I would hope that this global financial crisis has taught central bankers and macroeconomics, it is that financial assets are far more imperfectly substitutable than we ever thought they would be. This is true if more hidden in times of booms and bubbles as well as in times of busts and panics. Now this does not in any sense contradict Kristin Forbes' interesting results presented at this conference about co-movements of asset prices under the heading of contagion. In fact, what she presented concerned the differences for transmission across borders between different types of equity investment, of portfolio holdings, of investments via banks. Imperfect substitutability being important to the transmission mechanism of QE I think is consistent with this view. Similarly, what Governor Shirakawa said during that paper's discussion about the degree of an economy's international

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<sup>4</sup> I am delighted the author stated that he believes that this is a conclusion to take from the paper, because on my reading that was a clear implication, but not explicitly stated, and somewhat obscured – and some outside readers of the paper have apparently misinterpreted the paper, and should now be corrected.

vulnerability to global contagion being dependent upon how finance dependent is your trade is a statement about imperfectly substitutable assets.

Differentiation of financial assets matters. One of the most foolish mistakes of the last 15 years, both economically and in policy terms, I would argue was that we actively assumed this fact away. We imagined that because of what looked like beneficial financial innovation, the ability to create liquid exchanges between very differing forms of assets, and to get in and out of them under all circumstances, was vastly exaggerated. And this not only goes to behavioral issues of the sort that my colleague Andy Haldane was just talking about in his paper today.

This mistaken underestimation stems from an ill-advised and partly ideological replacement of the older preferred habitat view of finance from Tobin and others with the efficient financial markets hypothesis write excessively large. The preferred habitat is not just one aspect of QE's traction, in the way that my colleagues at the Bank of England and I have invoked it – i.e., the MPC goes to a pension fund, and says, “We know that you really like long gilts for planning and regulatory reasons. We’re going to make you an offer you can’t refuse on long gilts and you will have to reallocate your portfolio as a result.” That is the quintessential archetype of the preferred habitat view.

But upon reflection, I have come to believe that all kinds of financial actors have preferred habitats in very narrow context specific senses – senses that were resolutely ignored in our models and policies of the last 15 to 20 years. If I am a bank manager in a bank with imperiled capital, my preferred habitat is one where I never have to admit that my current assets are under water. If I am a homeowner with a special kind of literal habitat in a particular region or even a particular house, I have very little that can be easily or willingly substituted for that asset. Moreover, if we think about the insights that Ben Bernanke and others gave us with the whole credit channel literature (starting with Bernanke (1983) on the non-monetary transmission of the Great Depression), there frequently is no substitute for banks for certain kinds of borrowers. We all had high hopes for securitization ex ante, myself included, and we



found that the reality of its utility was more limited (even though its retreat has been excessive now). As a result, we have seen nothing but inefficient credit rationing for small to medium-sized businesses, for most households, and even for many financial institutions, since this crisis began.

One key lesson that I think we should take away is that there simply is not one real interest rate for the economy. Households are facing one set of highly differentiated interest rates, small and medium enterprises are facing another set of far from smoothly distributed interest rates, as is the construction sector, and so on. So this may complicate modeling to go down this road. The work being discussed later at this conference by Brunnermeier and Sannikov (2012) and Sufi (2012) regarding the distributional impact of monetary policy, and its relationship to the extent of financial frictions, is a promising field. We have to get away from searching under the lamppost if that is the way of the world, rather than settling for the models we have to work with. It was politically convenient to have pretended for the last twenty years that assuming the combination of a vertical Phillips Curve, forward-looking economic agents, and easily tradeable financial assets meant that monetary policy had only secondary distributional effects at most – that convenience must not blind us to the reality we face.

But finally, please let me conclude about monetary policy and the effectiveness of QE. If the persistence of financial fragility and of weak recovery are in large part due to the preferred habitats of asset holders with imperfectly substitutable assets, these problems are not easily addressable by moving the price of one financial asset or the level of one interest rate. As I said initially, I think we are running up against two self-imposed taboos when central bank committees could and should be buying alternative assets to government paper in order to maximize the traction of QE. The first taboo is against challenging the notion that a lot of the financial markets and institutions seem to be back to largely normal, so we would be interfering with a good market allocation of credit if we intervened further. The second taboo is the contention that, from a political economy view, we would be compromising the central bank's authority, credibility, independence, whatever abstract ideal claim you wish to put in that space, by doing

something that can be labeled fiscal policy because it chooses an asset to buy or sell. I will address both of these really quickly.

On the first point, I think looking around this world, you can see many, many markets that remain heavily impaired (above and beyond lowering our expectations for what degree of substitutability of assets should pertain in normal times). And I think you can come up with general criteria, standards announced ex-ante which can be monitored, that help you determine which financial assets and markets merit intervention in a given situation. That would mean that the central bank committee is not pandering to any particular lobby group with its purchases (or sales), either in reality or in fair perception, even if such a policy did inevitably have distributional impact. What matters for the central banks' mandates is not that you do something that has no distributive effects because that's nonsense to hope for. Everything the central bank does has some amount of distributive effects. What matters is that the committee is pursuing a policy that is not clearly motivated or traced to a distributive effect as a goal - monetary policy can still be motivated by aggregate welfare in design.<sup>5</sup>

That should be done upfront when proposing a targeted QE policy. And so central bank committees can identify that, for example, in the U.K. the small business market for lending is the most impaired and therefore, the new FLS should be acting on that. You can identify that in the Euro area, in my view, the key issue was the semi-panic in sovereign debt markets for Italy and Spain, and that is where the ECB has now committed to conditionally intervening. You can identify in the U.S. that the mortgage market remains in many ways impaired, though has been some progress, and that is where the FOMC has since chosen to intervene further. For all the reasons Mike sets out in the second half of the paper, and that I have tried to develop in my remarks, such targeted QE policies should lead to bigger bang for the central banks' created bucks. We should find out over the next year or two.

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<sup>5</sup> In fact, this is accepted in the discussion over the impact on some savers' interest income from cuts in the central banks' instrument interest rates to zero. It may be the right or wrong policy (though I am quite certain it is the right one), but the justification for it is in terms of risks and outcomes for the economy as a whole rather than denying the existence of savers with such portfolios and therefore interests.

So last but critically, on to addressing the political economy taboo that some want to impose on a potentially effective policy instrument of targeted asset purchases. Why would pursuing the policy I advocate *not* cause the temple walls to fall nor central banks' foundations to collapse? One cannot say it would never happen. There are obviously people in this room and much more scarily, people outside this room, who would say a central bank intervening in a given financial market is a betrayal, is entering into fiscal policy, whatever reasonable arguments exist. But you only need to look back at monetary history to see the obvious: central banks have engaged in extended periods of administrative guidance, of doing very active directed lending in particular sectors, and especially of engaging in market operations on financial assets other than government securities. And although these periods of central bank activism may not have been uniformly golden ages – in fact, they were often times of policies in response to periods with echoes of our situation today - these periods certainly were not associated regularly or even often with episodes of hyperinflation or currency collapses. That does not mean that there were not instances of abuse of such interventions, of course there were.

It is, however, quite literally a prehistoric argument in monetary terms to assert that central banks are engaged in experimental, unprecedented, or somehow scandalous and dangerous policy maneuvers today – we should stop giving such trumped up rhetoric any credence. The idea that there are somehow pristine virgin central banks, expected by the public to be like a vestal priesthood, that will be tainted forever by intervening in a given financial market, is, as I've remarked before, a truly primitive and anti-rational way of thinking about both economics and the beliefs of the general public. (Posen 2010b) I believe that central banks can and should go forward from here, and based on much of the analysis that Michael Woodford pulls together in the second half of this paper, continue simultaneously doing more and saying more, in the spirit of, say, Charlie Evans' threshold framework for setting policy on the basis of outcomes.<sup>6</sup> Doing more, and doing it in a targeted way on the assets for a given economy that are most

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<sup>6</sup> See Evans (2011). As I put it in Posen (2010a), “We will only know we will have done enough with QE or other monetary stimulus when we have clear indications that our policies are moving the desired variables – market interest rates, wages, output, employment, and inflation expectations – sufficiently and in the right directions

likely to have a beneficial effect, is the most important thing monetary policy can do under the present circumstances, both for the general welfare and for the maintenance of their political credibility. (Posen (2012)

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on a sustained basis...We can only gauge the success of our efforts by our results, and until we achieve those results, there is no danger from our heavy use of the available instruments. This is not a normal situation with finely balanced risks on both sides or with monetary policy able to finely calibrate to an outcome.”

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