

## QUANTITATIVE EASING AND POLICY IMPOTENCE

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- Fears that the global economy might slip back into recession have put policymakers under severe pressure to deliver new policy initiatives to help stem the tide.
- The Fed and Bank of England have recently responded with, respectively, an “Operation Twist” and a second, large, dose of “Quantitative Easing”. Both aim to lower long-term interest rates.
- We argue below that the claim that QE has had a highly significant effect on output is likely to be too optimistic.
- Therefore, what is needed, rather, is more creative forms of unorthodox monetary policy, such as a voucher scheme to support consumer spending financed by the Bank printing money; and – given that the euro crisis is the most important risk confronting us – an IMF-centred SPV to support sovereigns facing speculative attack and to help recapitalise the banks, funded in part by central banks printing money to buy the SPV’s bonds.
- Absent such reforms, and the global economy may well suffer another downturn.

During much of the past month, markets have tumbled on fears that several developed economies might be tipping back into recession – a mere two years after the so-called “Great Recession” is deemed to have ended, and before the level of advanced-country economic activity has even managed to regain its old, pre-crisis, peak. Given these concerns, investors have naturally started asking themselves what policymakers might do about this worrying state of affairs.

### Is “unconventional” monetary policy effective?

With interest rates close to its lower bound in several countries, central banks have been experimenting with various forms of unconventional monetary policy. (For a useful taxonomy of heterodox monetary policy strategies, see Ueda (2011).<sup>1</sup>) In recent weeks, the US Federal Reserve has delivered its “Operation Twist” – i.e., a switch in its portfolio of treasuries in order to help lower long-term interest rates – and, here in the UK, the Bank of England has announced a second, large, dose of “quantitative easing” (QE), which will take the total amount of gilt purchases carried out by the Bank up to nearly 20% of GDP.

After the announcement of Operation Twist on September 21, long-term interest rates did fall significantly. However, given that Chairman Bernanke has previously postulated that one reason lower long-term interest rates help the economy is because they boost stock prices, it must have been discouraging to the Fed that US stock prices fell significantly after the announcement. Indeed, this has led some to worry that the financial markets might be beginning to doubt the effectiveness of unconventional monetary policy.

Just ahead of its decision to embark on QE2, the Bank of England (BoE) published a study that made the argument that QE has been highly effective here in the UK – with the £200bn boost to the money supply that the Bank has already spent on gilts reckoned to have boosted the level of GDP by 1½% to 2%. (For details, see Joyce *et al* (2011)<sup>2</sup>.)

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<sup>1</sup> See “The Effectiveness of Non-Traditional Monetary Policy Measures: The Case of the Bank of Japan”, by Ueda, K., University of Tokyo, Centre for Advanced Research in Finance working paper no. CARF-F-252, at... [http://www.carf.e.u-tokyo.ac.jp/english/workingpaper/detail.cgi?workingpaper\\_fseries\\_id=262](http://www.carf.e.u-tokyo.ac.jp/english/workingpaper/detail.cgi?workingpaper_fseries_id=262)

<sup>2</sup> See “The United Kingdom’s quantitative easing policy: design, operation and impact”, by Joyce, M., Tong, M., and Woods, R., *Bank of England Quarterly Bulletin*, 2011 Q3, available at... <http://www.bankofengland.co.uk/publications/quarterlybulletin/2011.htm>

It is, therefore, appropriate to look more carefully at the evidence. In this regard, the Bank of Japan's experience with QE may well be highly relevant.

### Evidence from Japan

Although the evidence from Japan does suggest that QE helped lower interest rates, when it comes to quantifying the benefit of this reduction in interest rates and in the slope of the yield curve, in terms of the difference it makes to GDP and inflation prospects, it turns out that most studies find an only small effect. In a BOJ survey of empirical analyses, published four years ago, for example, the author concluded that, "[QE's] effect on raising aggregate demand and prices was often limited".<sup>3</sup>

More recent research into Japan's experiences, carried out at the Fed, discovered that introducing QE did result in a robust, positive effect on the flow of credit once banks' excess reserves rose.<sup>4</sup> However, it also reported that the "overall size of the boost was probably quite small" and that "the effect of liquidity on lending appears to have held only during the initial years of QE".

Likewise, Ueda (2011) – a former Board Member of the BOJ – has suggested that, although QE helped move some asset prices in the expected direction (although rarely the yen), these moves were nevertheless too small to make a meaningful difference to growth prospects. Worse still, even when they did move in the right direction initially – as, for example, sometimes happened with equity prices – the effect soon waned, thereby providing little impetus to business confidence, or to the real economy. Importantly, he highlighted one mechanism which works to reduce the efficacy of QE over time. As the central bank's share of intermediation rises, as the period over which QE is operated becomes extended, then the efficiency of intermediation declines, and the impact of QE wanes.

Our read on the evidence is that, given that Japan has experienced nearly two lost decades after falling into a "liquidity trap", it is fairly obvious that QE has proved ineffective there, or else that policymakers must have to act much more aggressively and pre-emptively than did the BOJ to engineer a recovery.

### The UK evidence

By contrast with the BOJ, the BoE has claimed that QE is potent. Chief Economist Spencer Dale claimed last year, for example, that £200bn of gilt purchases had reduced gilt yields by around 100bp (broadly in line with the results later reported in Joyce *et al* (2010)),<sup>5</sup> and that this had led to a meaningful rise in stock prices. Indeed, it is this assumed boost to stock prices that underlies their new (just published) estimates of the impact of QE on GDP.

However, we are uneasy about these estimates. For example, the Bank's researchers have assumed that, during each event window, it is *only* QE effects which are driving asset prices. Also, the window length – from the close the previous day to the close the day after the announcement – might be too long.

To take a specific example, on the 5<sup>th</sup> March 2009 – when the MPC announced it would purchase £75bn of assets – the 10-year gilt yield dropped sharply. But, at the same time that that happened, the Bank announced a cut in Bank Rate of 50bp. And the two-day event window included the worst US payrolls data since 1949. Not surprisingly, US treasury yields fell sharply, suggesting that gilt yields would have dropped quite smartly even without the Bank's rate cut or its decision on QE.

<sup>3</sup> See "Effects of the Quantitative Easing Policy: A Survey of Empirical Analyses", by Ugai, H., Bank of Japan, *Monetary and Economic Studies*, March 2007, Available at...  
<http://www.imes.boj.or.jp/research/abstracts/english/me25-1-1.html>

<sup>4</sup> See "Quantitative Easing and Bank Lending: Evidence from Japan", by Bowman, D., Cai, F., Davies, S., and Kamin, S., International Finance Discussion Paper no. 1018, Federal Reserve Board, June 2011. Available at...  
<http://www.federalreserve.gov/Pubs/ifdp/2011/1018/default.htm>

<sup>5</sup> See "The financial market impact of quantitative easing", by Joyce, M., Lasasoa, A., Stevens, I., and Tong, M., Bank of England working paper no. 393, revised August 2010, available at...  
<http://www.bankofengland.co.uk/publications/workingpapers/wpabst10.htm>

More generally, if one-day event windows are used instead of two-day ones, then the Bank's estimate of the overall effect on 10-year gilt yields drops from close to 100bp to just under 50bp. So, perhaps the Bank study exaggerates how powerful QE is in lowering long-term interest rates.

However, this is a relatively minor quibble. It is highly plausible that the BoE's actions *did* lower interest rates.

A more worrying aspect of the Bank's analysis concerns its failure to uncover any positive feed-through from QE "events" to equity prices. Over the windows studied by the researchers, for example, the FTSE All-Share index actually *dropped cumulatively* by three percent. This matters because one part of the Bank's analysis into how the benefit of lower long-term rates feeds through into higher GDP comes largely via an assumed wealth effect.

These wealth effects are constructed using a portfolio balance model which suggests that a positive impact of QE on equity prices of 20%. Clearly, this is a lot higher than what the event study suggests the impact actually turned out to be (of -3%). So, perhaps – instead of a derived 16% positive wealth effect that the Bank gauges to lead to a rise in real GDP of between 1½% and 2½% – the truth might be a mere fraction of this?<sup>6</sup>

Ultimately, unconventional monetary policy is deemed to be successful only if it boosts economic activity. We worry that the transmission mechanism from lower longer-term interest rates might not be working. Getting the equity market – and along with it business and consumer confidence – sustainably higher should be central to the authorities' strategy.

### **Evidence from the US**

Given Japan's poor experiences with QE, the Fed has argued that monetary policy would be more effective in the US only if they were more pre-emptive. And they have acted accordingly.

The literature analysing the effectiveness of unconventional monetary policy in the US largely agrees on the proposition that it succeeded in lowering long-term interest rates on treasury debt. (See, for example, the studies referred to in Bernanke (2011).<sup>7</sup>) Moreover, recent studies suggest that Fed policy shifts during 2008 to 2010 did usually help push equity markets higher on the day. (See, for example, Wright (2011).<sup>8</sup>) Note, though, that Ueda (2011) points out that the recovery in the equity market after the Fed's so-called QE2 in 2010 happened to coincide with the economic data-flow getting materially better, and once he allows for this effect, his empirical analysis fails to unearth any additional effect from the Fed's actions. Admittedly, this is tricky territory, but it is not obvious that QE2, *per se*, actually boosted stock prices.

Moreover, it is too early to know if equity markets will respond well to repeated doses of QE. If the Fed keeps returning with further doses of unconventional monetary policy, for example, it may well lead market participants to believe that previous doses were less effective than had been hoped, thereby making investors less optimistic. Certainly, the failure of equities to rally after Operation Twist hints at a growing scepticism regarding the efficacy of the Fed's efforts.

Last of all, but important when considering the impact of QE on activity, is the fact that lower government bond yields may not necessarily benefit households. After all, even if mortgage rates drop, many US

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<sup>6</sup> Note that the Bank's "wealth effects" approach to gauging the impact of QE on GDP leads to a slightly higher upper bound on its range of estimated impacts than the other approaches it considers. Hence, the Bank decided to lower this figure when coming up with best-guess of the overall impact (from 2½% to 2%).

<sup>7</sup> See Mr Bernanke's *Semi-annual Monetary Policy Report to the Congress*, 13<sup>th</sup> July 2011, available at... <http://www.federalreserve.gov/newsevents/testimony/bernanke20110713a.htm> Footnote 3 provides details of five academic studies that attempt to estimate the impact of large-scale asset purchases on asset prices and their yields.

<sup>8</sup> See "What does Monetary Policy do to Long-Term Interest Rates at the Zero Lower Bound?", by Wright, J., NBER working paper no. 17154, June 2011. <http://www.econ.jhu.edu/people/Wright/>

homeowners are not in a position to renegotiate their mortgages as they have negative equity. Likewise, both in the US and the UK, many SMEs cannot access credit markets, regardless of what rates are being charged on new loans: banks are not making new funding available.

At a time of considerable risk to the global economy, allowing the perception that unconventional monetary policy is likely to be relatively ineffective to take hold is dangerous. It is, therefore, apposite to consider more creative forms of unconventional monetary policy.

### **More creative forms of policy-making**

Policymakers need to do three things if they are to prevent a relapse. First, they need to get firms better access to credit. Second, they need to help boost demand. And, third, they need to deal with the euro crisis.

On the first of these, some progress has been made of late – with Adam Posen’s recommendations that the BoE and HM Treasury work together to ensure that SMEs get better access to finance via a (QE) policy known as “credit easing” having been endorsed by the Chancellor of the Exchequer.<sup>9</sup> (In the US, Alan Blinder has also suggested that the Fed engage in QE with respect to a broader set of assets to achieve similar aims.)

On the second issue, we believe that now is the time to consider the textbook example of printing money to finance consumption – sending every adult in the country a voucher that can be spent in the next three months: surely a more effective form of QE than the Bank buying gilts?

On the third, and most pressing, issue, neither the US nor the UK authorities can play the innocent bystander, and plead with Europe to sort out its mess. Better surely to recognise both the global scale of the problem and the political constraints that are currently limiting European policymakers’ room for manoeuvre, and act in accordance?

Raghuram Rajan has proposed that the IMF and EFSF set up an SPV to offer new credit lines to both sovereigns facing speculative attack and to help recapitalise the banks, with the SPV issuing bonds to finance itself.<sup>10</sup> Since it is important that the SPV have a ‘shock and awe’ effect, we recommend that central banks use QE programmes to buy the SPV’s bonds. Governments should protect central bank balance sheets from any losses that might accrue, although if the SPV is large enough it is unlikely to need to actually purchase many bonds. And why not put the IMF at the heart of driving the adjustment programmes, where they are needed – thereby building credibility? Such an approach would help resolve a crisis that is currently paralysing the corporate sector – and preventing firms from hiring and growing their businesses.

The time has come to experiment with these alternatives.

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<sup>9</sup> See “How to do more”, speech given on 13<sup>th</sup> September 2011, available at... <http://www.bankofengland.co.uk/publications/speeches/2011/speech517.pdf>

<sup>10</sup> See <http://www.ft.com/cms/s/0/fe521e24-e617-11e0-960c-00144feabdc0.html#axzz1a0RXVIwA>