

### The Unintended Consequences of Extraordinary Policy

On November 9<sup>th</sup> 2012 the Chancellor, George Osborne, requested that £37bn of “excess cash holdings” that had been generated through the Asset Purchase Facility (APF) be reimbursed to the Treasury. These were interest payments for the Bank of England’s holdings of UK government bonds (gilts), and Osborne wanted them back. Is this standard monetary policy, or something different? Is this the first definite point at which the central bank begins to directly monetise government debt? Or is it simply part and parcel of how quantitative easing (QE) is supposed to function? Perhaps it is a good time to reflect on QE, and analyse the amount of mission creep that has occurred since it was adopted in January 2009. As Mervyn King has said, “the scale and likely duration of the APF has increased significantly since its inception”.<sup>1</sup>

#### *What is QE?*

When QE was first touted in the U.S. Ben Bernanke preferred to call it “credit easing”. Since then George Osborne has used the term to mean something else completely. In the UK Willem Buiter attempted to popularise the term “qualitative easing”, but it didn’t catch on. When asked if the European Central Bank (ECB) were engaged in QE, Mario Draghi replied, “every jurisdiction has not only its own rules, but also its own vocabulary”. Quite. When conflict emerges about the use of a particular term, it typically comes to mean everything, and QE is best understood as a broad number of policies that can be pursued when a central bank hits the zero lower bound.<sup>2</sup>

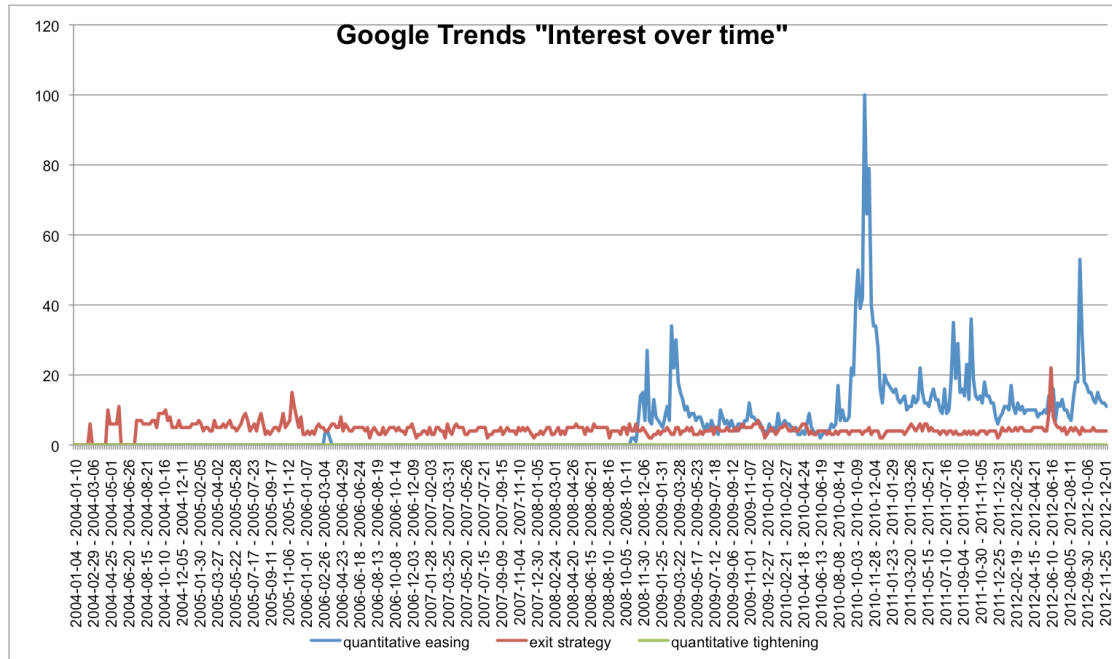
Further evidence for how central bankers are in new territory is that there’s no common label for what comes next. Commentators typically refer to an “exit strategy”, implying that QE is a temporary exception from the norm. One might think that the opposite of quantitative *easing* would be quantitative *tightening*, but we will have to wait and see. The chart below shows the Google Trends “interest over time” from 2004-2012 for “quantitative easing” (in blue).<sup>3</sup>

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<sup>1</sup> Letter to The Chancellor, November 9<sup>th</sup> 2012.

<sup>2</sup> Although inflation can cause real interest rates to go negative, *nominal* interest rates cannot go below zero. Therefore when the risk free overnight (i.e. “policy”) rate is low central banks can no longer use it to stimulate aggregate demand. This doesn’t mean that monetary policy becomes ineffective; it just means that you cannot use the main tool. Note that this is *not* a “liquidity trap”, which refers to when the demand for money becomes perfectly elastic, and applies more to the interest rates for bonds and other financial instruments.

<sup>3</sup> The y axis is simply a relative scale where 100 represents the peak search volume.



The red line shows “exit strategy”, whilst the non-existent, green line shows “quantitative tightening”.

As an attempt to clarify the matter consider the following definition of standard Open Market Operations (OMOs):

“Central banks [CB] buy and sell government bonds from commercial banks with newly created money to influence the interbank market and hit a target short-term interest rate”<sup>4</sup>

We can now see a number of potential tools, simply be tweaking various parts of this definition:

1. The CB changes the *quality* of assets bought and engages in the purchase of assets other than government bonds (such as private bonds or mortgages backed securities) – i.e. **qualitative easing**
2. The CB *changes the list of institutions that it buys from*. Instead of only dealing with particular commercial banks they buy assets directly from the non-bank commercial sector, or possibly even buy debt directly from business such as SMEs – i.e. **credit easing**
3. The CB *changes the maturity of the assets being bought*. The can deliberately attempt to flatten the yield curve by focusing their purchases on longer term assets, and selling off holdings of short term ones – i.e. **Operation Twist**
4. The CB targets the *quantity of assets* being bought rather than the price (i.e. the interest rate) – i.e. **quantitative easing**

The labels in bold are not in universal use, and it’s more common to use QE to refer to everything that takes place at the ZLB.<sup>5</sup> But it is important to make a distinction between efforts to increase the CB’s

<sup>4</sup> This definition and description is taken from “Central banks have plenty of ammo but there’s confusion on how they fire”, Anthony J. Evans, City AM, May 28<sup>th</sup> 2012

balance sheet, versus those taken to change its composition. Ultimately QE involves tweaking standard OMO. And once they are being tweaked, the question becomes in which direction – by targeting the quantity rather than the “price”, the type, the duration, or who they’re bought from.

Following Blinder (2010) we can label the interest rate paid on financial instrument  $j$  as  $R_j$  and split it between the risk free rate  $r$  and a risk premium specific to that instrument  $P_j$  thus:

$$R_j = r + P_j$$

This can also be viewed as a rudimentary transmission mechanism, because although the CB has control over  $r$ , it is  $R_j$  that is more important for aggregate demand. In normal times  $P_j$  is probably quite stable, but during the crisis the risk free overnight rate lost its power -  $P_j$  was increasing by more than the CB could reduce  $r$ . Therefore QE can also be treated as an attempt to move along the transmission mechanism and directly target *market* interest rates by affecting  $P_j$ . Indeed this is part of why various economists are worried about how the Fed has turned into a financial central planner (see Hummel 2011).

All of these policies have been utilised by the U.S. Federal Reserve. In early 2008 they altered the composition of their balance sheet by selling T-Bills and buying less liquid assets as a means to increase market liquidity (what we refer to above as qualitative easing). In March 2008 they also began to lend to non-bank primary dealers (credit easing). It was only on October 10<sup>th</sup> 2008 that they started to cut interest rates, and began the process of expanding its balance sheet on a massive scale - both in terms of the types of assets being bought and who from. Excess reserves skyrocketed. They even attempted to dust off John F. Kennedy’s policy of “Operation Twist”.

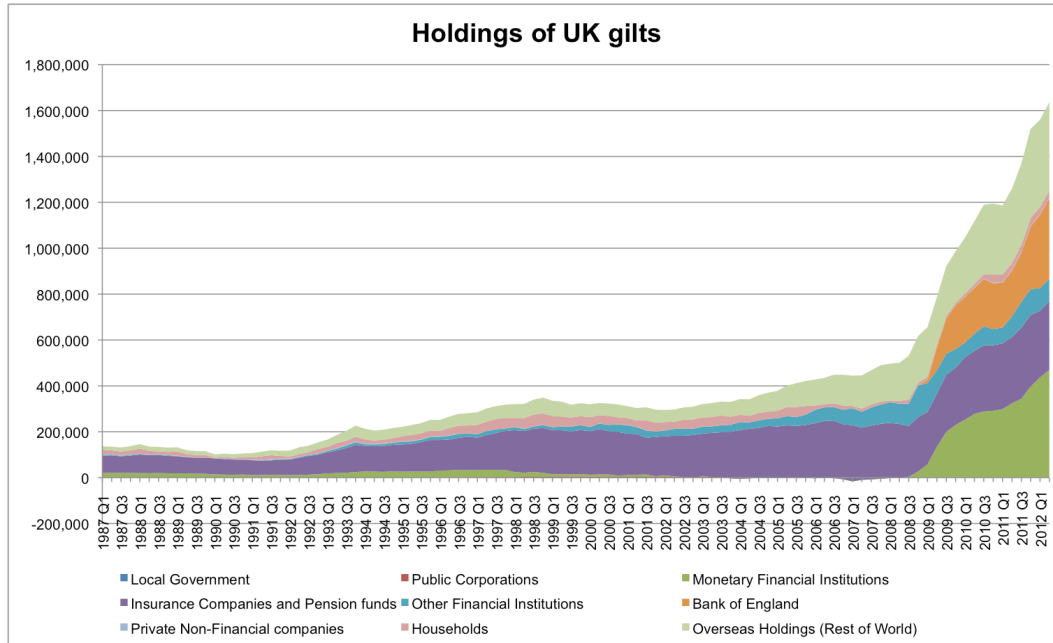
### *The UK experience*

In his March 3<sup>rd</sup> 2009 letter to Mervyn King, the then Chancellor Alistair Darling said that he was “writing to authorise the MPC to use the Asset Purchase Facility to purchase UK government debt on the secondary market as well as the full range of private sector assets specified in my letter of 29 January, included syndicated loans and asset-backed securities”. He went on to stress that of the £150bn of QE that was being authorised, “in recognition of the importance of supporting the flow of corporate credit, up to £50bn of that should be used to purchase private sector assets”. However by August 6<sup>th</sup> 2009 he said, “the recovery in private sector participation has limited the need for APF purchases of these assets”. Indeed on November 29<sup>th</sup> 2011 his successor, George Osborne, reduced the ceiling for private sector purchases to just £10bn.

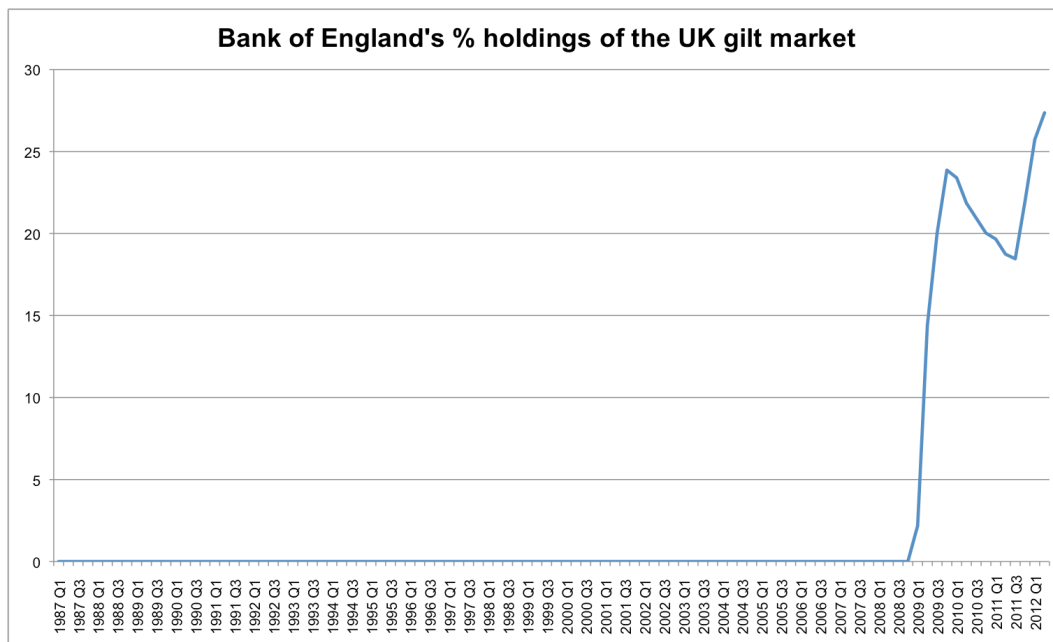
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<sup>5</sup> Alan Blinder (2010) defines QE as “changes in the composition and/or size of a central bank’s balance sheet that are designed to ease liquidity and/or credit conditions”.

The proportion of marketable Treasuries held by the US Federal Reserve is pretty low, exceeding 15% in 2001 but then gradually falling through 2008.<sup>6</sup> One could argue that the Fed is essentially a noise trader that constitutes <20% of the market both before and since the crisis. The situation in the UK, however, is different. The figure below shows how the holdings of UK gilts have changed since 1987.<sup>7</sup> The key insight is the emergence of the Bank of England since 2008 (shown in orange).



The Bank's holdings of the total gilt market have gone from 0% to over 25%:



<sup>6</sup> See "Is the Fed Buying Up All the Treasury Debt?", David Beckwith, September 30<sup>th</sup> 2012 [http://macromarketmusings.blogspot.co.uk/2012/09/is-fed-buying-up-all-treasury-debt.html]

<sup>7</sup> I am grateful to @Britmouse for pointing out the following data from the Debt Management Office: <http://t.co/ueYpg70y>. It is incomplete but the best I can find.

*The distributional effects of QE*

One of the main criticisms that Austrian school economists make of standard macroeconomics is the aggregation, and preliminary efforts to study the effects of QE have lived up to this criticism. Joyce et al (2011) find that the £200bn of QE done between March 2009 and January 2010 raised real GDP by between 1.5% - 2% and increased CPI by 0.75% - 1.5%<sup>8</sup>. The conventional wisdom is that “savers” have been penalised by QE due to the lower return they receive on their assets, but QE also boosts the value of those assets. Defining “savers” as “people with positive gross financial assets”, The Bank of England estimate that lower rates deprived savers of about £70bn worth of income, but also reduced their interest expenses by about £100bn.<sup>9</sup>

Ideally we could break down “savers” into more detail, and we can list several criteria:

- Age
- Gross vs. net saver
- Pensioners or non pensioners
- Type of pension (i.e. whether it is defined benefit, final salary, fully funded, annuity income, etc)
- Structure of savings (e.g. stock market, bonds, housing market, etc)

Most newspapers will use “typical households” to report the impact of The Budget, for example The Telegraph/Grant Thornton use the following:<sup>10</sup>

1. Single person no children
2. Couple both earning
3. Single person one child
4. Couple one earner one child
5. Self-employed one earner
6. Couple one earner two children
7. Single pensioner aged 75 or over
8. Couple two earners one child
9. Pensioner couple aged 65-74
10. Couple two earners two children

There are plenty of additional combinations that can be made, and ultimately these sort of tools attempt to provide a custom impact study that is tailored to whoever is completing it. It would be interesting if monetary policy were afforded the same degree of disaggregation, so that distributional effects of QE were better known.

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<sup>8</sup> These ranges are percentage points relative to the counterfactual of no QE.

<sup>9</sup> See <http://www.bankofengland.co.uk/publications/Documents/news/2012/nr073.pdf>

<sup>10</sup> See <http://www.telegraph.co.uk/finance/budget/9158869/Budget-2012-calculator-How-will-the-budget-affect-me.html>

The issue about pensions is a critical one, and there are massive changes in the industry independent of QE. Issues such as the proportion of final salary schemes, or the rate at which final salary schemes were closed to new members, or the capping of their value were influenced both by changes to accounting rules and government decisions to remove tax relief (which essentially amounts to appropriation). The way in which QE has interacted with these factors (not to mention the impact of demographic trends on a bloated welfare state) is complex and hard to isolate. Ultimately these are just one of the unknowable consequences of QE.<sup>11</sup>

#### *What next for QE?*

Osborne's decision to claim the gilt coupon payments took many commentators by surprise. It exposed a number of uncertainties relating to the QE program, and raised several important questions. Chris Giles provided an important time line of events in the *Financial Times*:<sup>12</sup>

- Thursday November 8<sup>th</sup> – The monetary policy committee (MPC) voted to keep Bank Rate unchanged and QE unchanged. i.e. monetary conditions were unchanged
- Friday November 9<sup>th</sup> – The Governor acknowledges that the coupon transfer amounts to “a small loosening of monetary conditions”, and says that “the committee therefore views the use of the coupon income to reduce the stock of outstanding gilts as having an effect similar to the MPC purchasing gilts of the same value”
- Wednesday November 14<sup>th</sup> – The Governor treats the £37bn transfer as being equivalent to asset purchases

One response is that this is pretty standard, for example The Federal Reserve regularly reimburse the U.S. Treasury. In his letter to Mervyn King, the Chancellor suggests bringing the arrangements “in line with the practices of the Federal Reserve and the Bank of Japan”. But just because the Fed do it, doesn't make it benign - moving closer to them is an important development in UK monetary policy.<sup>13</sup>

The political motivations for the move are unclear. It essentially amounts to an early dividend on a project that is expected to lose money. One of the reasons why the coupon payments were sat on by the Bank of England was to cover future anticipated losses. There is a gap between the forecast value of the assets if held to maturity, and the amount that has been spent on them. The Treasury will ultimately need to plug that gap, and now have £37bn less to do it with. In his letter Mervyn King says that these are just payments from one part of the public sector to another, so it doesn't really matter. But the “cash management operation” is an important development for at least three reasons:

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<sup>11</sup> Others might include the way in which blue chip companies have become to be seen as cash generators, or the boom to raw materials and other commodities. A monetary inflation creates waves that cannot be fully anticipated, but phenomena such as the Chinese Lafite wine bubble demonstrate that it always manifests itself somewhere.

<sup>12</sup> Giles, Chris, “How loose is UK monetary policy” *Financial Times*, November 14<sup>th</sup> 2012

<sup>13</sup> Currently the UK Treasury take half of the Bank of England's profits, every 6 months, and the cash management operation will apply quarterly.

1. It raises uncertainty about the permanency of QE – the general expectation seemed to be that QE was a temporary measure (hence talk of an “exit strategy”) and the intention was to sell gilts back onto the market at some future date. Alternatively, they could be held until redemption, however this is a fairly arbitrary way to conduct monetary policy (i.e. by allowing the monetary base to change based on redemption dates rather than a judgment of monetary conditions). When QE was announced there was no talk that these would constitute permanent increases in the monetary base.
2. It raises uncertainty about the monetary stance – the Bank of England report and publicise two indicators of the monetary stance - Bank Rate and the total value of the QE programme. Whether the cash management operation should be treated as additional QE is a legitimate question. If the Bank simply alter their intended asset purchases to neutralise the cash management operation then perhaps the monetary base itself would be a better indicator than the size of the APF.
3. It raises uncertainty about the distinction between monetary and fiscal policy – the Bank of England is such a large player in the UK gilt market that the government is facing a relaxed budget constraint. The reason why QE was *not* Weimer style public finance was because the Bank of England only buys on the secondary market, and because the programme was a temporary one to be wound down when conditions improved. We are now a lot closer to the CB directly monetising government debt - if we’re not already there.
4. It raises uncertainty about the independence of the Bank of England – George Osborne’s rationale for transferring the coupon payments now was simply that the holdings had reached “a large cash balance”. But it seems suspicious that this occurs in the same month of the Autumn Statement, where public finances are revealed to be in worse shape than forecast. There is not doubt that it is a political decision that the Bank of England have agreed to.

The gilts held in the APF begin to retire in March 2013, and the picture will be a lot clearer by then. There can be little doubt though that the way in which QE is being conducted has changed since its initiation. This is to be expected, and is not necessarily a bad thing. However it does generate uncertainty and opens some interesting questions about how monetary policy is being conducted.

## References

Blinder, Alan S., “Quantitative Easing: Entrance and Exit Strategies”, Federal Reserve Bank of St Louis Review, November/December 2010

Hummel, Jeffrey R., “Ben Bernanke versus Milton Friedman: The Federal Reserve’s Emergence as the U.S. Economy’s Central Planner”, *The Independent Review*, 15(4):485-518

Joyce, M, Tong, M and Woods, R (2011), ‘The United Kingdom’s quantitative easing policy: design, operation and impact’, *Bank of England Quarterly Bulletin*, 51(3):200-12.

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