

# How Green Infrastructure Quantitative Easing would work

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I have been asked to provide an explanation of how Green Infrastructure Quantitative Easing would work as a result of the speech I made this morning to the Convention of Scottish Local Authorities. This is a summary:

### **Green Infrastructure Quantitative Easingi**

#### **The UK has an economic problem**

In 2015 the UK is facing indisputable economic difficulties, including a below expectation tax take, the threat of a rising deficit and the spectre of deflation. That suggests that the time for a change of direction has arrived. Chancellor George Osborne should then, in his final budget of this parliament, introduce a new quantitative easing (QE) programme for this country, but with a difference.

#### **Investment is the answer**

What is needed now is a QE programme that would stimulate the economy, boost employment and tackle climate change. This could be achieved if QE funding was used to fund essential infrastructure improvements across the UK. That could increase employment, create new business opportunities, broaden the tax base and, most importantly, create the infrastructure that could be the basis for future prosperity in the UK that the government, most political parties, the private sector and trade unions all recognise that we now need.

Nothing but government investment can turn the UK economy around given that private investment is falling at present, consumers are cautious about borrowing to spend and real wages have still, for most people, not reached their 2008 levels. At the same time EU and other overseas markets look very unlikely to give the export boost that is the only other way to kick start economic activity in this country.

What has been missing to date is the mechanism to fund this essential new government investment, and Infrastructure QE provides this.

## **What Infrastructure QE is, and how it works**

All QE works by the Bank of England buying debt issued by the government or other bodies using money that it, quite literally, creates out of thin air.

There is nothing very odd about this money creation process that the Bank of England would use. All money, barring notes and coins, is created by banks (including all those familiar names on the High Street) when they make loans. The process is very simple. When you ask for a loan from a bank you do not get given somebody else's money, although that is the common understanding of the process. Instead the bank simply creates two accounts for you. One is a current account into which they put the money you want to spend, and the other is a loan account, which is the amount that you owe back to them.

The important point to note is that there was no money in either account before you asked for the loan, and if you immediately repaid it after the loan was granted, then there would be no new money either because both accounts would be cancelled. It's the fact that people believe that they can spend the money in the current account that's been created by the loan that, quite literally, means that banks can create money out of thin air.

Between 2009 and 2012 the Bank of England used this exact mechanism to lend money to one of its own subsidiary companies (Bank of England Asset Purchase Facility Fund Limited which was, of course, eventually owned by the government) to buy back government debt to the tune of £375 billion. The purpose was solely to provide new money for use in the banking system at a time when the banks themselves were suffering reduced demand for loans that would have created the cash we needed to keep the economy going.

There was, however, one enormous side-effect of this whole process. That side effect was that the £375 billion of debt in question was effectively cancelled

The government no longer pays interest on this £375 billion of its borrowing, because to do so would mean that it would simply be paying interest to itself since the government gilts now belong to the Bank of England, which is in turn owned by the Government. That's one clear indication that the debt no longer existed, because if it did the interest would have been due. And that is quite obviously true: whilst one part of government can obviously owe money to another part, if no one outside government is due money as a result there can be no government debt owing, and that has been the consequence of QE.

What we are suggesting now is that this programme be extended and that a new QE programme of up to £50 billion a year be created during the first years of the new parliament to provide the funding to build the infrastructure that will be our legacy to our children.

We suggest that this new programme should buy the new debt that will be issued in the form of bonds by the Green Investment Bank to fund sustainable energy, local authorities to pay for new houses, NHS trusts to build new hospitals and education authorities to build schools. This QE programme could do this just as readily as the previous programme bought central government bonds. And the result would be, in exactly the same way as government bonds were effectively cancelled by the previous QE programme the moment that they were bought by the Bank of England, that these new bonds would also effectively be cancelled as each of the bodies issuing them is part of government, and the government cannot owe itself money, as previously noted.

### **What would be funded?**

We have already suggested some of the government and related organisations that could be funded using the Infrastructure QE programme, but we are particularly keen that the programme be used to make every building in the UK energy efficient, and, where feasible, fitted with solar panels, which would reduce energy bills and in the process tackle fuel poverty and cut greenhouse gas emissions.

The scope of this energy efficiency initiative would be huge, given that there are around 28 million dwellings and 2 million commercial and public sector buildings in the UK.<sup>ii</sup> It has been estimated that nearly £500bn of investment in new low-carbon infrastructure is required over the next 10 years, of which £230bn will be required for energy efficiency alone.<sup>iii</sup> A 'Green Infrastructure QE' programme might therefore fund £50 billion a year of investment over the next ten years unless the economy booms and other sources of funding become available.

Such an approach is, we stress, technically feasible in banking terms. Mark Carney, the Governor of the Bank of England, is on record as saying that if the government requested it then the next round of QE could be used to buy assets other than government debt.<sup>iv</sup> Indeed the Bank of England has itself said it is looking at taking on a more proactive role in tackling environmental problems. Last month it announced its new One Bank Research agenda that it would for example examine 'what role, if any, do central banks have in addressing systemic environmental risks?' <sup>v</sup>

### **All this can be done debt free**

We reiterate: this whole process can be undertaken without creating new debt that will have to be repaid in future. It is instead paid for by creating new money, which is a total different process.

What we also stress is that this money creation process used is not unusual, artificial, or even novel: it is what happens every single time a bank makes a loan. All that is unusual is that we are suggesting that the funds created by the Bank of England using this process be used to buy back debt that is due by the government in one of its many forms, meaning that it is effectively cancelled.

And we also stress that this process has already been proven to work: £375 billion of debt has already been cancelled in this way.

### **But what about inflation?**

We stress, this whole programme can only be undertaken until such time as either the UK economy is functioning at full capacity, or there is genuine full employment or there is real risk of significant wage inflation. Until these conditions exist the government can issue debt without risk of inflation despite the fact that **all** QE programmes print new money.

That money creation is their purpose. But that money creation is necessary at a time when the economy is under-performing because when there is a shortage of demand, or exports, or private investment in the economy (and each of these is true right now) then there is also a shortage of demand for bank borrowing, and since almost all money that we need to keep the economy going round is created by bank borrowing, too little money creation can actually create a self-fulfilling recessionary environment unless the government steps in to correct it, which is what QE does. The purpose of QE is to break that recessionary cycle by creating new money, but from the government instead of private banks. If the private banks were doing their job in creating money then we would not need QE. The fact is that they are not, and that's why QE is essential.

In this context the fact that QE money is never cancelled, unlike the money issued by private banks, which is cancelled when loans are repaid, is also important. We need to keep QE money in the economy to ensure there is sufficient money for the economy to work. The fact that it does not need to be repaid has been confirmed by Adair Turner, the former Chairman of the Financial Services Authority has made clear that in his view money should be created this way, and not repaid.vi

That said, we accept that if such a program continued when the economy had recovered then it could be inflationary. This cannot be denied, but at present we do not have inflation in the economy. Indeed, the risk is that because of falling oil prices and a continuing lack of any sign of real wage increases, there may be deflation in the UK economy, which is a much greater risk than inflation. So, we make very clear that we do not think that QE can be used forever for the purpose funding investment in infrastructure, but it can be so long as there is little or no real growth in the economy, and there is no risk of current inflation.

### **What's the difference between this QE programme and the last one?**

The QE program that was put in place between 2009 in 2012 had just one central purpose, which was to refinance provide the City of London and its banks. By and large it succeeded. Bankers bonuses continued as a result, banks were refinanced, and the money was used to boost their balance sheet by inflating house prices, the stock market and many asset prices. That was, whether the government admits it or not, the

purpose of the exercise. £6,000 of money was created for every person in the UK and was largely spent on keeping our banks in business.

What we are suggesting is a smaller programme of less than £1,000 per person in the UK a year to kickstart the UK economy by investing in all those things that we would wish our children to inherit whilst creating the opportunities for everyone in every city, town, village and hamlet in the UK to undertake meaningful and appropriately paid work.

A recent IMF report 'The Time Is Right for an Infrastructure Push'<sup>vii</sup> made the case that more public infrastructure investment is critical at present, not just in the UK, but in many countries. It made clear that its impact is strongest when there is economic slack and that, when done correctly, 'the boost to output offsets the debt taken'. We would argue that if QE is used to fund the investment there is no debt at all, but that there will be a boost is undeniable.

This variant of the Bank of England's original Quantitative Easing programme should kick-start the essential transition to a revitalised and greener UK economy. It could, in turn, provide enough tax revenue to enable the Government to spend more public money on other activities, as well as providing the confidence needed to unlock additional private funding from pension and insurance companies through to individual savers. Taken together, these would provide the scale of long term investment required.

But perhaps most important of all, this could create jobs in every single constituency of the United Kingdom which is why we think it should be a political imperative for all parties in the run up to next May's election.

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### ***Technical note: how Green Infrastructure QE (GIQE) would work***

GIQE always starts with debt. It may be debt issued by local authorities, or NHS trusts to replace PFI, or the Green Investment Bank, or whoever, but all will be within the state sector. Never once will there be GIQE without debt, or it would not be QE.

And that debt would, because of the requirements of the EU Lisbon Treaty, be issued to private sector banks in the first instance: that is what the law requires.

However, under a GIQE programme government would require that the Bank of England (BoE) make funding available to purchase such debt almost immediately after its issue to private banks.

It is stressed, this would not be a matter within the gift of the BoE; it would be

mandated to act in this way by law. The BoE is not an agency above and beyond the law; it is just a wholly owed company controlled by the government. It can be required to do whatever the government demands and is an agency of the state just as, for example, an NHS trust is. We may like to pretend both are quasi independent bodies right now, but that's just a charade of choice that can be stripped away if it is convenient to do so.

As a result BoE will acquire the debt issued by local authorities and others (in practice through a special purpose subsidiary created for the purpose) from the commercial banks who first bought it, which banks may, it must be said, have been its owners for a very short time. In effect they may have had them only on underwriting account. And once the debt is owned by the BoE the effective result will be that a government owned agency (the local authority etc.) will have issued debt that will be by now be wholly owned by another government authority with the money for that acquisition by the BoE special purpose vehicle used for this purpose having been created out of thin air.

But what that then means is that if the debt has, in effect, been acquired costlessly (and it will have been, because the money used to buy it, which, of course, is a sum almost exactly equivalent to the original value of the bond, was created by the BoE out of thin air) then to charge interest on it makes no sense because there was no cost to creation of that money and no debt to be serviced to pay for the cost of acquisition. This is why this arrangement is different from loans to local authorities and the like from the Public Works Loans Board, which in effect makes gilt finance available to local authorities. So, the debt interest on the loan can be waived as a result (as, it is stressed, it has been on QE gilts now) the debt instrument in the state owned authority (NHS, local authority, Green Investment Bank, etc.) takes on a wholly different, and much more exacting role because it then becomes what is, in effect, hybrid equity that appears to be issued as debt but actually behaves entirely like share capital in a private enterprise. In other words, the GIQE funds become risk bearing capital (although technically remaining as debt) to fund the types of growth we really need in the economy.

And because this debt can, like all debt that behaves like equity, have conditions attached to it, then the BoE subsidiary that owns it can also assign the right to manage that debt to a relevant government department if it was empowered to do so, meaning that the effective equity stake that GIQE could create could be brought wholly and completely under accountable control through something akin to an equity loan arrangement or the effective grant of a proxy for some aspects of management of the quasi equity interest, both of which arrangements are well known and understood corporate finance.

What it is important to say as a result is that the BoE would not control the investments, it would merely act as an intermediary.

And the investments would be under democratic control, which is key to the political

acceptability of this whole arrangement.

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## Notes

**[i]** The term 'Green Quantitative Easing' was first explicitly used in 2010 in <http://www.financeforthefuture.com/GreenQuEasing.pdf> **This concept of directing quantitative easing to fund the greening of the UK's infrastructure was included in the Green New Deal Group's 2013 report 'A National Plan for the UK'** <http://www.greennewdealgroup.org/wp-content/uploads/2013/09/Green-New-Deal-5th-Anniversary.pdf> **and in the new economic foundation's 2013 report 'Strategic quantitative easing'** [http://b3cdn.net/nefoundation/e79789e1e31f261e95\\_ypm6b49z7.pdf](http://b3cdn.net/nefoundation/e79789e1e31f261e95_ypm6b49z7.pdf)

**[ii]** [http://www.ons.gov.uk/ons/dcp171766\\_373513.pdf](http://www.ons.gov.uk/ons/dcp171766_373513.pdf)

**[iii]** [http://www.e3g.org/docs/Accelerating\\_the\\_transition\\_to\\_a\\_low\\_carbon\\_economy\\_The\\_case\\_for\\_a\\_Green\\_Infrastructure\\_Bank.pdf](http://www.e3g.org/docs/Accelerating_the_transition_to_a_low_carbon_economy_The_case_for_a_Green_Infrastructure_Bank.pdf)

**[iv]** 'Mark Carney boosts green investment hopes' *Financial Times*, March 18th, 2014

<http://www.ft.com/cms/s/0/812f3388-aeaf-11e3-8e41-00144feab7de.html#axzz30ATJUiZ2>

**[v]** <http://ftalphaville.ft.com/2015/02/25/2120315/should-central-banks-adopt-a-green-agenda/?Authorised=false>;  
<http://www.bankofengland.co.uk/research/Documents/onebank/discussion.pdf>

**[vi]** <http://www.ft.com/cms/s/0/8e3ec518-68cf-11e4-9eeb-00144feabdc0.html#ixzz3IjZNT6bq>

**[vii]** <http://www.imf.org/external/pubs/ft/survey/so/2014/res093014a.htm>