Quantitative easing

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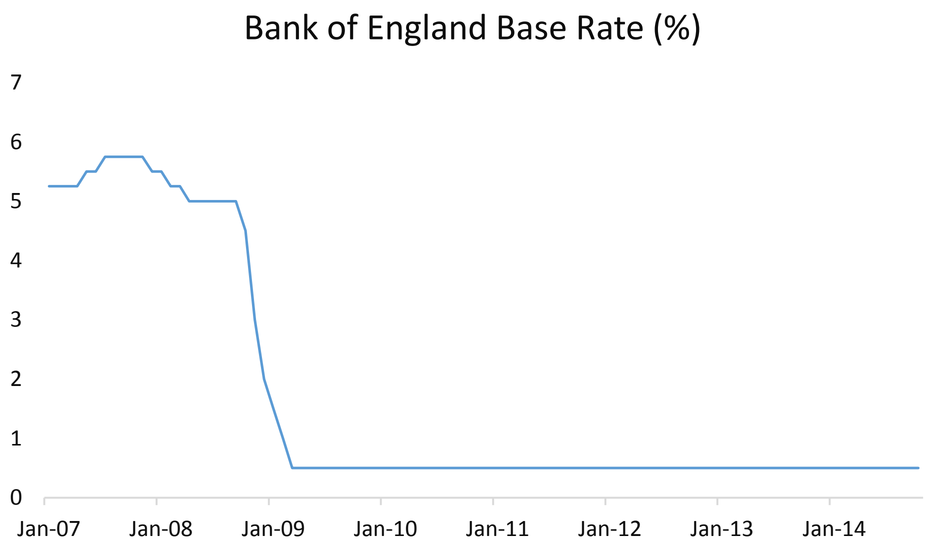
1 Introduction

On 5 March 2009, the Bank of England announced that it would start a policy of "Quantitative Easing" (QE).[1] This is a policy aimed at boosting the level of activity in the economy. Under normal circumstances, monetary policy operates through the interest rate set by the Monetary Policy Committee (MPC) of the Bank of England. However, interest rates had been cut from 5% in April 2008 to just 0.5% in March 2009, leaving little scope for further cuts.



With conventional monetary policy constrained in this way, the Bank of England has had to adopt an unconventional QE policy. Under QE, the Bank creates money which it uses to buy assets (mainly government bonds). This increases the amount of money in the economy. It is hoped this will boost the economy by encouraging banks to increase lending and consumers to increase spending.

2 Background

On 19 January 2009, the then Chancellor, Alistair Darling, announced that the Government had authorised the Bank of England to create a new fund, the Asset Purchase Facility. In a letter to the Governor of the Bank on 29 January 2009, the Chancellor said:

> As announced on 19 January, this facility provides a framework for the Monetary Policy Committee of the Bank of England to use asset purchases for monetary policy purposes should the Monetary Policy Committee conclude that this would be useful for meeting the inflation target.[2]

In the event of the MPC believing this would be necessary, the Governor would write to the Chancellor setting out the MPC's reasons. The Chancellor would reply to the Bank and advise Parliament that such consent had been given.

Alistair Darling informed Parliament that the Asset Purchase Facility would be used for monetary policy purposes in a written statement on 5 March 2009.[3] The written statement

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1 Bank of England News Release, *Bank of England reduces Bank Rate by 0.5 percentage points to 0.5% and announces £75 billion asset purchase programme*, 5 March 2009

2 *Chancellor's letter to the Governor*, 29 January 2009

3 HC Deb 5 March 2009 cc61-2WS

stated that the Governor had written to the Chancellor on 17 February requesting authorisation to use this facility:

> Following the meeting of the Monetary Policy Committee on 4 and 5 February 2009, the Governor of the Bank of England wrote to me on 17 February, requesting that the Monetary Policy Committee be authorised to use the facility to purchase eligible assets financed by central bank money. The Governor's letter set out that the Monetary Policy Committee had concluded that it might be necessary to use asset purchases at future meetings in order to meet the 2 per cent. target for CPI inflation.
>
> I replied to the Governor on 3 March, authorising the Monetary Policy Committee to use the asset purchase facility for monetary policy purposes. I also extended the range of assets eligible for purchase by the Bank of England asset purchase facility fund to include UK Government debt purchased on the secondary market as well as the full range of private sector assets previously specified in my letter to the Governor of 29 January 2009. And I also authorised an increase in the scale of purchases under the facility to up to £150 billion, but that, in line with current arrangements and in recognition of the importance of supporting the flow of corporate credit, up to £50 billion of that should be used to purchase private sector assets. These are maximum limits within which the Monetary Policy Committee will determine the scale of its purchases each month; the proportion of Government and private sector assets purchased will be kept under review.
>
> These changes do not affect the objectives of the Government's monetary policy framework. The remit of the Monetary Policy Committee continues to be maintaining price stability, and subject to that, to support the Government's economic policy, including its objectives for growth and employment. The symmetrical inflation target is 2 per cent. on the CPI measure, as specified in my letter to the Governor of the Bank of England of 11 March 2008.[4]

3 What is quantitative easing?

QE is designed to boost the economy. When the policy was introduced, the Bank believed that there was a substantial risk of inflation undershooting its 2% target (measured by the Consumer Prices Index). As interest rates have been at 0.5% since March 2009, there has been little scope to reduce them further and a different approach was deemed necessary. In a news release in March 2009, the Bank said:

> CPI inflation declined to 3.0% in January. The depreciation of sterling is adding to imported cost pressures, but pay pressures continue to wane. Inflation is likely to fall below the 2% target by the second half of the year, reflecting diminishing contributions from retail energy and food prices and the impact of the temporary reduction in Value Added Tax.
>
> At its March meeting, the Committee noted that the February Inflation Report had implied a substantial risk of undershooting the 2% CPI inflation target in the medium term and that a further easing in monetary policy was likely to be needed. Data released since the finalisation of the Report had not materially altered that prospect. Accordingly, the Committee concluded that a further easing in the stance of monetary policy was warranted. But the Committee also noted that a very low level of Bank Rate could have counter-productive effects on the operation of some financial markets and on the lending capacity of the banking system. On balance, the Committee decided to reduce Bank Rate by 0.5 percentage points, to 0.5%.

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[4] HC Deb 5 March 2009 cc61-2WS

> The Committee judged that this reduction in Bank Rate would by itself still leave a substantial risk of undershooting the 2% CPI inflation target in the medium term. Accordingly, the Committee also resolved to undertake further monetary actions, with the aim of boosting the supply of money and credit and thus raising the rate of growth of nominal spending to a level consistent with meeting the inflation target in the medium term.[5]

3.1 How does it work?

Central banks have the ability to 'create' money. This happens electronically rather than through the physical printing of extra bank notes. The banks will then use this money to fund purchases of assets. The Bank has mainly purchased government bonds. Purchases of government bonds will increase commercial banks' deposits at the Bank of England. The theory is that the commercial banks will use these increased deposits as the basis for increased lending to businesses and households.

The Bank of England website explains the way QE works as follows:

> The Bank of England electronically creates new money and uses it to purchase gilts from private investors such as pension funds and insurance companies. These investors typically do not want to hold on to this money, because it yields a low return. So they tend to use it to purchase other assets, such as corporate bonds and shares. That lowers longer-term borrowing costs and encourages the issuance of new equities and bonds to stimulate spending and keep inflation on track to meet the government's target.[6]

A diagram showing the channels through which QE affects the economy is appended at the end of this note.

3.2 How much QE has occurred?

Initially, in March 2009, the Bank of England announced that it would purchase £75 billion of assets. The scale of purchases was expanded so that by July 2012, the total amount of QE had increased to £375 billion (see table below).

Quantitative easing
£ billion

	Asset purchases	Cumulative total
Mar-09	75	75
May-09	50	125
Aug-09	50	175
Nov-09	25	200
Oct-11	75	275
Feb-12	50	325
Jul-12	50	375

Source: Bank of England

5 Bank of England News Release, *Bank of England reduces Bank Rate to 0.5 percentage points to 0.5% and announces £75 billion asset purchase programme*, 5 March 2009

6 Bank of England website, Quantitative easing explained

3.3 Initial reaction to the introduction of QE

A leader column in the *Financial Times* in March 2009 commented as follows on the policy:

> […] the Bank is rightly resorting to unconventional measures. The monetary policy committee has decided to start "quantitative easing". It will create reserves with which to buy, as a first move, £75bn of gilts and corporate bonds.
>
> This process is known colloquially as "printing money". But, in truth, money will be created electronically - as it is daily within the world's central banks. The difference between quantitative easing and conventional monetary policy is that rather than setting the prices for credit, central banks use their tools to increase the supply of money. The financial system must still be fixed but easing aims to loosen credit and liquidity conditions directly.
>
> The Bank will be increasing the money supply when it freely admits that it does not know the multiplier effects which exist between the supply of money and output. It will be experimenting. But while allusions to the debased currencies of Weimar Germany and modern Zimbabwe are common, they are wrong. Quantitative easing will not lead to hyperinflation. Inflation is now too low, and new money can be destroyed extremely rapidly.[7]

The *Times* argued that there was justification for the policy but that there had been failures in monetary policy:

> The Bank's policy is justified and urgent. Inflation is decelerating. There is a risk that the economy might be caught in a spiral of sustained falls in prices (deflation), as happened in Japan in the 1990s. That would be disastrous. Consumers would defer purchases in the expectation of further price falls. Growth, employment and investment would collapse. The Bank is running the risk of a future jump in inflation in order to forestall a return to Depression-era economics.
>
> But while the policy is right for the circumstances, it is an outcome of policy failure. Inflation targeting was introduced in 1992 with the aim of enhancing economic stability and making policy decisions more transparent.
>
> […]
>
> Monetary policy failed. The Bank's mandate of targeting inflation proved too narrow. It focused on consumer prices but overlooked asset prices. Cheap imports from China helped to dampen inflationary pressures and let the Bank keep interest rates low. But a massive bubble in house prices, fuelled by imprudent lending, was left unconstrained. The Bank was so consumed with its monetary responsibilities that it failed in its task of securing financial stability.[8]

The Conservatives described the policy as a "leap in the dark" and ""a last resort", necessary because of the "complete failure" of Labour's other measures to tackle the recession".[9] The Liberal Democrats said it was "now the only clear option" but that "the Government must be careful that this kind of radical action doesn't quickly turn deflation into high inflation".[10]

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7 "A tale of two banks", *Financial Times*, 6 March 2009

8 "The politics of printing money" , *The Times*, 6 March 2009

9 Quantitative easing is a 'leap in the dark', Conservative Party News story, 5 March 2009

10 *Bank of England has run out of conventional weapons – Cable*, Liberal Democrats Press Release, 5 March 2009

4 The impact of QE

4.1 GDP

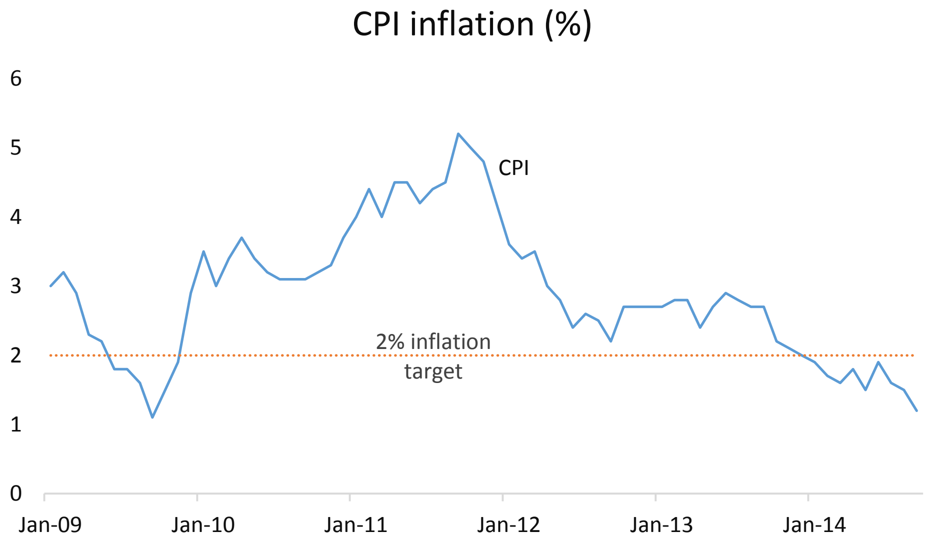
Analysis by Bank of England staff indicates that at its peak, QE may have increased real GDP by around 2½%. The May 2014 *Inflation Report* said:

> The MPC purchased £375 billion of assets between 2009 and 2012 and, since March 2013, has reinvested the cash flows associated with the maturing gilts held in the Asset Purchase Facility (APF), in order to maintain the stock at £375 billion.
>
> Asset purchases raise holdings of broad money, lower gilt yields and, in turn, raise a range of asset prices. That stimulates expenditure by increasing wealth and lowering financing costs. Asset purchases may also have a stimulatory impact through their broader effects on expectations and confidence. There is uncertainty about the impact of asset purchases on the economy: in particular, as with changes in Bank Rate, the precise effect on the economy depends on the prevailing economic conditions.
>
> In general, looser monetary policy encourages households and companies to bring forward spending from the future and is usually assumed to boost real activity only in the short to medium term. There are, however, a number of reasons why the MPC's asset purchases, undertaken at a time of considerable uncertainty and financial market strains, may have provided enduring support to the level of activity, relative to where it would otherwise have been. For example, by changing the mix of assets held in the private sector, the MPC's purchases may have a prolonged impact on yields and therefore the cost of capital. And by limiting the fall in output during the recession, they may have contained the deterioration in supply capacity — for example, if fewer unemployed people left the labour market or fewer productive assets were scrapped. Overall, the MPC therefore judges that maintaining the stock of assets is likely to provide continued, albeit declining, support to the level of activity.
>
> Bank staff analysis suggests that the peak cumulative impact of the MPC's asset purchases on the level of real GDP was around 2½%. As purchases are assumed to take around two years to feed through fully to activity, that peak impact probably occurred during 2013. In the MPC's projections the stock of purchased assets is assumed to remain at £375 billion throughout the forecast period. Over the forecast period, therefore, the support to the level of activity from asset purchases is assumed to wane.[11]

4.2 Inflation

It is sometimes argued that one risk of QE is an increase in inflation. CPI inflation fell from 2.9% in March 2009 to 1.1% in September 2009. It then increased reaching a peak of 5.2% in September 2011. It has generally been on a downward trend since then, falling below 3% in May 2012 and below 2% in January 2014.

11 Bank of England, *Inflation Report*, May 2014, p41



4.3 Distributional issues

Another issue raised by QE is the effect on savers and pensioners through the effect on annuity rates. This was highlighted by the Treasury Select Committee in its report on the 2012 Budget. The Committee's report said:

> Loose monetary policy, achieved through quantitative easing and low interest rates, has redistributional effects, particularly penalising savers, those with 'drawdown pensions' and those retiring now. The Bank of England has argued that some of those effects may be mitigated by the increase in asset prices stimulated by quantitative easing. While the aggregate of savers and pensioners may have received some benefit from higher asset prices, there will be many individuals who will not have benefited. The Bank of England, after, where appropriate, consultation with the Treasury, should provide its estimate of the overall benefit and loss to pensioners and savers from quantitative easing. […] We further recommend that the Bank of England, and particularly MPC members, improve upon their efforts to explain the benefits of the current position of monetary policy to those affected by the redistributive effects of quantitative easing.
>
> We recommend that the Government consider whether there are any measures that should be taken to mitigate the redistributional effects of quantitative easing, and if appropriate consult on them at the time of the Autumn Statement. [12]

In response, the Bank of England published a paper in its *Quarterly Bulletin* in 2012.[13] The Bank's News Release accompanying this paper said:

> The Bank's response to the financial crisis has been unprecedented, with Bank Rate cut to a historically low level and asset purchases totalling £375 billion to date. Most people in the United Kingdom would have been worse off without this response, including savers and pensioners. All assessments of the effect of QE must be seen in that light. QE has caused the price of gilts to rise and yields to fall, in turn leading to an increase in demand for, and price of, a wide range of other assets, including corporate bonds and equities. That has lowered borrowing costs for companies and households and increased the net wealth of asset holders, both of which have acted to stimulate spending.

12 Treasury Committee, *Budget 2012*, HC 1910-I, 18 April 2012, paras 54-5

13 "The distributional effects of asset purchases", Bank of England *Quarterly Bulletin*, 2012, Q3

As with all changes in the stance of monetary policy, the recent period of loose monetary policy has had distributional consequences, and its benefits have not been shared equally across all individuals. The paper analyses the direct impact of the cuts in Bank Rate and QE on savers, pensioners and pension providers. It is important to note that the calculations focus on just the direct impacts, and not the wider benefits described above.

Households hold the majority of their savings as easily accessible deposits. As a consequence, the cuts in Bank Rate – not QE – have been the dominant influence on savers. Lower interest rates have depressed the aggregate interest payments received by households on their deposits. But QE has worked in the opposite direction, boosting the value of households' financial wealth by pushing up a range of asset prices.

As far as the impact of QE on pensioners goes, the incomes of those already drawing a pension before QE began will have been unaffected. The implications of QE for those approaching retirement and for pension providers depends on the type of pension scheme and how well it is funded.

For those approaching retirement in 'defined contribution' schemes, lower gilt yields as a result of QE have reduced annuity rates. But it is crucial to allow for the fact the QE has raised the value of pension fund assets too. Once allowance is made for that, QE is estimated to have had a broadly neutral impact on the value of the annuity income that can be purchased from a typical personal pension pot invested in a mixture of bonds and equities.

The paper shows that QE also has a broadly neutral impact on a fully funded 'defined benefit' scheme. Moreover, the pension incomes of people coming up to retirement in a defined benefit scheme, whether fully funded or not, will have been unaffected by QE. But schemes that were already in substantial deficit before the financial crisis are likely to have seen those deficits increased.

The paper notes that the main factor behind increased pension deficits and falls in annuity incomes has not been the Bank's asset purchases, but rather the fall in equity prices relative to government bond prices. This fall in the relative price of equities was not caused by QE. It happened in all the major economies, much of it occurred prior to the start of asset purchases and stemmed in large part from the reluctance of investors to hold risky assets, such as equities, given the deterioration in the economic outlook as a result of the financial crisis. Indeed, by boosting the economy, monetary policy actions in the United Kingdom and overseas probably dampened this effect.[14]

5 Unwinding QE

At some point in the future, the Bank may choose to unwind QE by selling the assets purchased under QE. The Governor of the Bank has told the Treasury Select Committee that there would be no sales of assets at least until interest rates had increased to a level from which they could be cut materially.[15] In the February 2014 Inflation Report, the Bank said:

> A final factor affecting the path of Bank Rate is the timing, extent and speed at which the MPC chooses to unwind its asset purchases. Last August, the MPC stated its intention not to reduce the stock of purchased assets at least until the 7% unemployment rate threshold was reached, and, consistent with that, to reinvest the cash flows associated with all maturing gilts held in the Asset Purchase Facility (APF).

[14] Bank of England News Release, *The distributional effects of asset purchases*, 23 August 2012

[15] Mark Carney, *Report to Treasury Select Committee*, 10 September 2014

> Updating this guidance, the MPC intends to maintain the stock of purchased assets, including reinvesting the cash flows associated with all maturing gilts held in the APF, at least until Bank Rate has been raised from its current level of 0.5%.[16]

The May 2014 Inflation Report said:

> In the February Report, the MPC stated that it intends to maintain the stock, including reinvesting the cash flows associated with all maturing gilts held in the APF, at least until Bank Rate has been raised from its current rate of 0.5%. Beyond that point, as MPC members have previously set out in individual speeches and testimony, there are a number of considerations that will affect its decisions as to how to tighten policy.
>
> - Bank Rate will be the active marginal instrument for monetary policy.
> - In order to be able to use Bank Rate as an active tool in response to adverse shocks to activity, the MPC is likely to defer sales of assets at least until Bank Rate has reached a level from which it could be cut materially, were more stimulus to be required.
> - Some reduction in the stock of assets could be achieved without active sales, as the gilts in the portfolio mature.
> - Any asset sales will be conducted in an orderly programme over a period of time so as not to disrupt the gilt market and cause a sharp tightening in monetary conditions. The Bank will liaise with the Debt Management Office when deciding any programme of sales.
>
> All else equal, any reduction in the stock of purchased assets is likely to be associated with a lower path of Bank Rate than would otherwise have been the case.[17]

16 Bank of England, *Inflation Report*, February 2014, p2
17 Bank of England, *Inflation Report*, May 2014, p41

6 Links to further information

Bank of England website: Quantitative easing explained

Michael Joyce et al, "The United Kingdom's quantitative easing policy: design, operation and impact", Bank of England *Quarterly Bulletin*, 2011, Q3

"The distributional effects of asset purchases", Bank of England Quarterly Bulletin, 2012, Q3

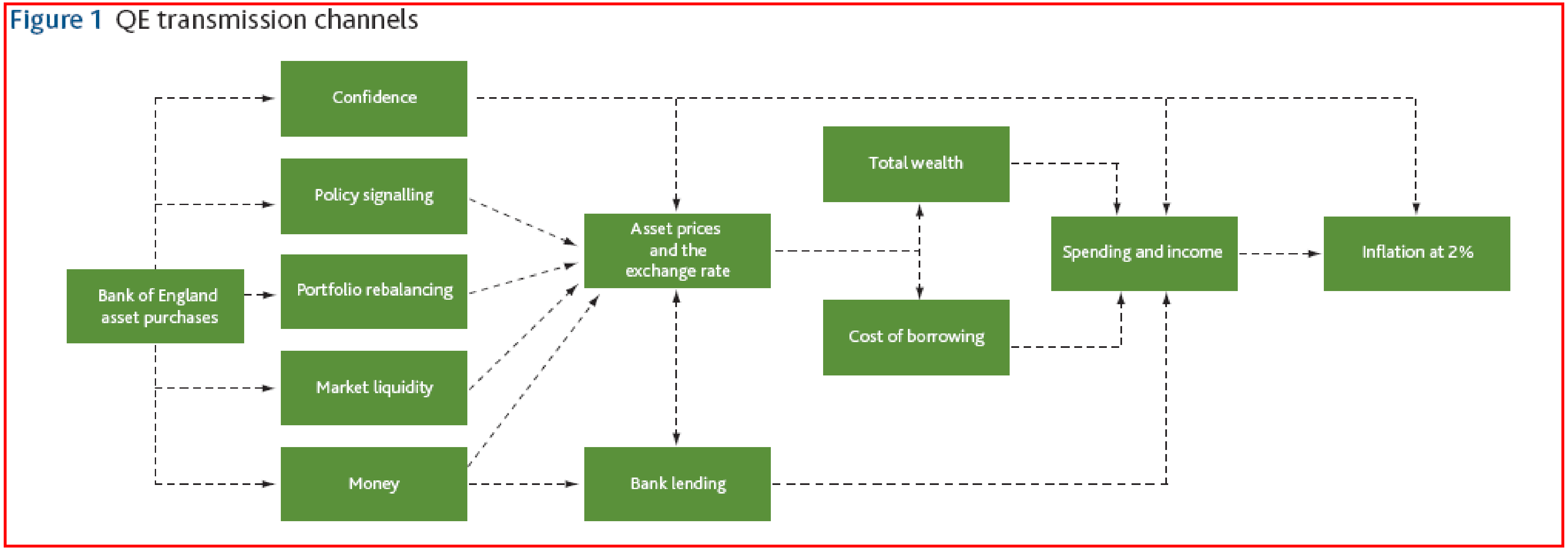
Minutes of the Monetary Policy Committee

Inflation Report

Quarterly reports on Asset Purchase Facility

Exchanges of letters between Governor of Bank of England and Chancellor Exchequer on QE

7 Diagram showing channels by which QE affects the economy



Source: Bank of England Quarterly Bulletin 2011, Q3, p201