BANK OF ENGLAND

Mark Carney
Governor

The Rt Hon Philip Hammond
Chancellor of the Exchequer
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

4 August 2016

Dear Chancellor,

On 19 July, the Office for National Statistics published data showing that twelve-month CPI inflation was 0.5% in June. As required by the Remit of the Monetary Policy Committee, this letter – which will be published alongside the August *Inflation Report* – addresses the following:

- The reasons why inflation has moved away from the target, and the outlook for inflation.
- The horizon over which the MPC judges it appropriate to return inflation to the target.
- The trade-off that has been made by the MPC with regard to inflation and output variability in determining the scale and duration of any expected deviation of inflation from the target.
- The policy action that the MPC is taking in response.
- How this approach meets the Government's monetary policy objective.

Why has inflation moved away from the target?

Twelve-month CPI inflation stood at 0.5% in June, 1.5 percentage points below the target. Table 1 shows a breakdown of the arithmetic contributions of different components of CPI inflation to the deviation from the target.

Table 1: Arithmetic contributions to June 2016 CPI inflation relative to the pre-crisis average

Percentage points	1997-2007 average	June 2016	June 2016 difference from average	*Memo: Difference in February 2015 Open Letter*[b]
Energy	0.3	-0.3	-0.6	-0.8
Food, non-alcoholic beverages	0.2	-0.3	-0.5	-0.4
Other goods[a]	-0.1	-0.2	-0.2	0.2
Services	1.6	1.3	-0.2	-0.5
CPI[a]	2.0	0.5	-1.5	-1.4

(a) Adjusted for the close to 0.4 percentage point downward bias from clothing that existed until 2010.
(b) Relates to the December 2014 CPI release.

The underlying causes of the below-target inflation of the past year and a half have been: sharp falls in commodity prices; the earlier appreciation of sterling; and, to a lesser degree, the subdued pace of domestic cost growth.

Table 1 indicates that around three-quarters of the deviation of inflation from target is accounted for by food and energy prices alone, with the most quantitatively significant factor remaining the sharp fall in energy prices between the middle of 2014 and beginning of 2016. Despite the increase in the sterling oil price since January, retail petrol prices were 4.0% lower in June than a year earlier. Similarly, household gas prices as measured in the CPI were 6.7% lower than a year earlier. These movements have resulted in the contribution of domestic energy prices to CPI inflation being some 0.6 percentage points lower than seen on average in the decade preceding the financial crisis.

Food and non-alcoholic beverage prices have fallen further since May and now stand 6.9% lower than their peak in 2014, and 2.9% lower than a year ago. This continues to reflect falls in the prices of the underlying commodities, the past appreciation of sterling and ongoing intense competition amongst food retailers.

The sterling effective exchange rate index appreciated by over 15% between the summers of 2013 and 2015, and the effects of the consequent reduction in imported costs on retail prices are still evident beyond the food and energy components. In June, the contribution of other goods prices to CPI inflation was slightly weaker than the average in the ten years before the financial crisis. It is also possible that the effects of the earlier appreciation continue to be felt in some of the more import-intensive consumer service sectors. Nevertheless, it is nearly a year since sterling reached the peak of its 2013-2015 appreciation, and it is possible that the downward pressure that this has applied to retail prices is now past its peak. Moreover, the subsequent depreciation in the currency will soon start pushing up on import prices.

Although these factors explain the vast majority (over five sixths) of the deviation of inflation from the 2% target in June, subdued domestic cost growth remains an influence. This can be seen in the continued weakness of the inflation rate within consumer services. More directly, muted domestic cost growth can be seen in the subdued rates of pay growth that have persisted despite the tightening of the labour market over the past few years. During the first half of this year, the unemployment rate had fallen back to the level prevailing before the financial crisis, for example. There are a number of possible explanations for the continued weakness of pay growth: the weakness of productivity growth since the recession, shifts in the composition of the workforce and the impact of the low level of consumer price inflation itself on expectations for wage growth are all likely to have played a role. The net result has been that both pay and unit labour cost growth remain below historical norms.

The outlook for CPI inflation

In its August *Inflation Report*, published today, the MPC has set out its updated assessment of the outlook for the economy and for monetary policy. This assessment is markedly different from that produced at the time of the May *Inflation Report*, which was conditioned on the assumption of a vote for the United Kingdom to remain in the European Union. The change in the outlook for inflation resulting from the vote to leave is the product of the projected effects on demand, supply and the exchange rate.

Demand is expected to be markedly weaker, and unemployment higher, than projected in May. This is the result of a number of forces, including the protracted period of heightened uncertainty that is now in prospect, an expected weakening in the housing market, and a higher cost of capital for UK-focused firms given notable falls in their equity prices. These factors are projected to weigh particularly on business and housing investment in the near term and, with time, consumer spending. Together these imply a lower path for domestic demand. Set against that, sterling has fallen by 7% in trade-weighted terms and is 10% lower than in the conditioning path in the May *Inflation Report*, which should provide some support for exports. Alongside lower real incomes in the United Kingdom, which will weigh on imports, this is projected to imply that net trade provides some support to demand, albeit one that is insufficient to prevent a substantial slowing in GDP growth overall. Although it will be some time until any such effects will be reflected in official data releases, some are beginning to manifest in surveys of investment intentions, business activity, and the housing market.

A key judgement is the extent to which this lower path for demand is likely to be accompanied by a lower path for supply. Here, too, there are numerous forces at work. The weakness in demand will itself weigh on supply growth as a period of low investment restrains growth in the capital stock and productivity. There could also be

more direct implications for supply from the vote to leave the European Union. The UK's trading relationships with its major trading partners are likely to be different, but precisely how will be unclear for some time. If companies are uncertain about the future impact of this on their businesses, they could delay decisions about building supply capacity or entering new markets. In anticipation of the UK's new trading arrangements, a period of resource reallocation could be necessary as some sectors expand and others contract. Finally – and although it is likely to have only small implications for average wages, productivity, and so inflation – the path for net migration, and therefore labour supply, is particularly uncertain in light of the vote to leave the European Union. As a result of these factors, the MPC expects supply growth to remain well below past average rates throughout the forecast period.

The combination of these demand and supply factors means that cumulative growth of GDP over the forecast period is expected to be around 2½% lower by the end of the forecast period than was the case in May. On balance, demand is likely to fall relative to supply, so that a margin of spare capacity is expected to open up and the unemployment rate expected to rise from its current level of 4.9% over the course of the next year or so. All else equal, this is expected to weigh on consumer price inflation. Acting against that, the lower sterling exchange rate is expected to push up on import prices and consumer prices notably over the next three years. In two years' time, imported costs are projected to be pushing up on inflation by around three-quarters of a percentage point more than was the case in the May forecast. As a result, and despite the weaker outlook for activity, inflation is projected to be higher than had been expected in May, with the result that the central projection is for twelve-month CPI inflation of 2.4% at the two- and three-year points in the forecast.

Over what horizon is it appropriate to return inflation to the target? And what trade-off has been made with regard to inflation and output variability?

The MPC's Remit is clear that the inflation target is symmetric: deviations of inflation below the target are treated with the same importance as deviations above it. The Remit recognises that while the inflation target applies at all times, there will be occasions when inflation will deviate from the target as a result of economic shocks and disturbances.

Such factors will typically move inflation away from the target temporarily. In these situations, it would not be feasible to bring inflation back to the target immediately because it takes time for monetary policy to affect the economy. The peak effect of monetary policy on inflation is generally estimated to occur with a lag of between 12 and 24 months. Moreover, attempts to return inflation to the target too quickly could lead to undesirable volatility in output.

The Remit also recognises that, in exceptional circumstances, shocks to the economy may be particularly large, or the effects of shocks may persist over an extended period, or both. In such circumstances, the MPC is likely to face a more significant trade-off between the speed with which it aims to bring inflation back to the target and the consideration that should be placed on the variability of output. In forming and communicating its judgements, the Remit requires the Committee to explain the monetary policy trade-off it faces, including the horizon over which the MPC judges it appropriate to return inflation to the target.

The appropriate horizon for returning inflation to the target depends on the severity of this trade-off, which in turn hinges on the nature and persistence of the disturbances that caused inflation to deviate from the target in the first place.

In May, the challenge was to determine over what horizon to return inflation to the target from below. This required balancing the persistent drags from external factors with increases in domestic cost growth. The MPC had a mild tightening bias, with members judging it "more likely than not that Bank Rate will need to be higher by the end of the forecast period than at present to ensure inflation returns to the target in a sustainable manner".

Following the vote to leave the EU, the balance of forces acting on inflation, and so the trade-off the MPC faces, has changed markedly. As the MPC anticipated in May, this has made it necessary to reassess the appropriate stance of monetary policy.

As noted above, both demand and supply are expected to weaken significantly compared with the MPC's May projections, despite the substantial downward shift in the yield curve, and the significant depreciation in sterling's exchange rate. This combination of influences on demand, supply and the exchange rate is expected to lead to a materially lower path for growth and a somewhat higher path for inflation than in the central projections set out in the May *Inflation Report*. Moreover, these influences are expected to endure. An extended period of uncertainty is likely to widen the margin of spare capacity in the economy for some time. Equally, the pass-through of higher import costs to consumer prices is likely to be incomplete even at the end of the MPC's forecast period. Past experience suggests that it takes time for retailers of imported goods to reflect fully their higher costs in the prices they charge.

The MPC expects inflation to return to the target within two years. Given the persistence of these effects, however, it expects thereafter to balance a period of above-target inflation in the second and third years of the forecast, owing primarily to imported price pressures, with a period over which the economy operates below full capacity, which will bear down on domestic costs.

Fully offsetting the persistent effects of sterling's depreciation would require exerting further downward pressure on domestic costs. This would involve lost output and higher unemployment. In the Committee's judgement, such outcomes would be undesirable and, moreover, would be less likely to generate a sustainable return of inflation to the target beyond its three-year forecast horizon. In line with its Remit, the MPC therefore judges it appropriate to set policy so that inflation settles at its target over a longer period than the usual 18-24 months in order to mitigate some of the adverse effects of the shock on growth. In doing so, the MPC's aim is to ensure that demand growth is sufficient to absorb spare capacity over time, such that inflation returns to the target in a sustainable manner.

The policy action the Committee is taking in response

Given the monetary policy strategy considerations set out above, the MPC has today announced a package of measures designed to provide additional support to the economy and to achieve a sustainable return of inflation to the target. This package comprises: a 25 basis point cut in Bank Rate to 0.25%; a new Term Funding Scheme (TFS) to reinforce the pass-through of the cut in Bank Rate; the purchase of up to £10 billion of sterling non-financial investment-grade corporate bonds issued by firms making a material contribution to the UK economy; and an expansion of the asset purchase scheme for UK government bonds of £60 billion, taking the total stock of these asset purchases to £435 billion. The last three elements will be financed by the issuance of central bank reserves.

This package of monetary policy stimulus measures contains a number of mutually reinforcing elements, all of which have scope for further action. The MPC can act further along each of the dimensions of the package by lowering Bank Rate, by expanding the TFS to reinforce further the monetary transmission mechanism, and by expanding the scale or variety of assets purchases. If the incoming data prove broadly consistent with the August *Inflation Report* forecast, a majority of members expect to support a further cut in Bank Rate to its effective lower bound at one of the MPC's forthcoming meetings during the course of this year. The MPC currently judges this bound to be close to, but a little above, zero.

The MPC has a range of tools at its disposal to support the economy, and this choice of instruments is based on a consideration of their likely impact on the real economy – including how they support UK households and businesses – and inflation. The MPC has also examined the interaction between monetary policy and the financial sector, with regard both to ensuring the effective transmission of monetary policy to the real economy, and to maintaining the stability of the financial system. It has worked in close coordination with the FPC and PRA Board, when appropriate, to maximise the coherence and effectiveness of its policies.

The cut in Bank Rate will lower borrowing costs for companies and households. However, as interest rates are close to zero it is likely to be difficult for some banks and building societies to reduce deposit rates much further, which in turn might limit their ability to cut their lending rates. Analysis by staff across the Bank suggests that a reduction in Bank Rate could, by itself, lower banks' net interest margins a little, which could in turn lead to upward pressure on margins on new lending. In such circumstances, the transmission of monetary policy would be less effective than usual.

To avoid the risk that the reduction in Bank Rate does not feed through fully to the rates faced by households and businesses, the MPC voted to establish a Term Funding Scheme that will provide funding for banks at interest rates close to Bank Rate, calibrated so that the reduction in Bank Rate has a broadly neutral impact on building societies' and banks' margins in aggregate. This monetary policy measure should help reinforce the transmission of the reduction in Bank Rate to the real economy so that households and firms benefit from the MPC's actions. Details of the TFS are provided in a box included in the August *Inflation Report*.

In addition to its primary monetary policy objective, the TFS provides participants with a cost effective source of funding in the form of central bank reserves to support additional lending to the real economy. Banks will be able to access another pound of funding for every pound their net lending expands. Although bank funding markets have been resilient in the face of the worsening outlook for the real economy, there remains a risk that funding conditions could tighten. The TFS will provide an alternative source of finance and, in addition to its direct effect on funding costs, it could lower market rates.

In addition to cutting Bank Rate, supported by the introduction of the TFS, the MPC has voted to expand its asset purchase programme for UK government bonds, financed by the issuance of central bank reserves. This will trigger portfolio rebalancing into riskier assets, lowering the real cost of borrowing for households and companies.

Investors who sell assets to the Bank are unlikely to view the money received as a perfect substitute for those assets. Rather than holding on to all of the money that they receive from selling the assets, investors are likely to use the money to acquire other closer substitutes, such as equities or corporate bonds. The increase in demand for these assets should then push up their prices, lowering their yields. And that demand should enable companies to raise more funds from capital markets than they otherwise would, supporting their productive activities, including hiring and investment.

The MPC also voted to establish a Corporate Bond Purchase Scheme (CBPS), within the APF. Corporate bond purchases should provide somewhat more stimulus, pound for pound, than the same amount of gilt purchases. In particular, given that corporate bonds are higher yielding instruments than government bonds, investors selling corporate debt to the Bank could be more likely to invest the money received in other corporate assets than those selling gilts. In addition, by increasing demand in secondary markets, purchases by the Bank could reduce liquidity premia. The Bank's purchases in 2009 played a role in reducing those premia from elevated levels. Moreover, such purchases could stimulate issuance in sterling corporate bond markets. The MPC has therefore announced that it will look to purchase a portfolio of sterling non-financial investment-grade corporate bonds representative of issuance by firms making a material contribution to the UK economy.

The likely size of the market that will be eligible for the CBPS is around £150bn. The purchases will probably increase the prices and lower the rates on eligible bonds and the programme could stimulate issuance of bonds that would be eligible for the scheme. Although corporate bonds are typically issued by larger companies, any shift towards debt issuance will reduce their demand for bank lending, potentially freeing up bank capital to back lending to smaller businesses.

The Committee is mindful of the fact that its asset purchase programme will be expanded within the context of an already low interest rate environment. Long-term interest rates have fallen over recent years, reflecting a range of factors including the outlook for long-term supply and the balance between global saving and planned global investment. Lower yields pose potential risks to some aspects of the functioning of the financial system, for example by increasing the deficits of many pension funds and through their effects on the business models

of insurers. At present, however, those effects appear to be relatively limited. Many companies that see increased pension deficits are able to extend the period over which they bring them back to balance, maintaining the existing level of contributions. Indeed, the overall size of contributions to defined benefit schemes has been broadly stable over the past two decades despite fluctuations in the size of the deficit. Financial stability will be supported by a number of regulatory actions, such as the PRA's decision to smooth the transition to Solvency II for insurers.

As set out in the August *Inflation Report*, conditional on this package, the MPC expects that by the three-year forecast horizon unemployment will have begun to fall back and that much of the economy's spare capacity will have been re-absorbed, while inflation will be a little above the 2% target. In those projections, the cumulative growth of output is still around 2½% less at the end of the forecast period than in the MPC's May projections. Much of this revision reflects a downward adjustment to potential supply that monetary policy cannot offset. However, monetary policy can provide support as the economy adjusts. Had it not taken the action announced today, the MPC judges it likely that output would be lower, unemployment higher and slack greater throughout the forecast period, jeopardising a sustainable return of inflation to the target.

The policy measures announced by the MPC today take place against a backdrop of other supportive actions taken by the Bank of England recently. The Bank has announced that it will continue to offer indexed long-term repo operations on a weekly basis until the end of September 2016 as a precautionary step to provide additional flexibility in the Bank's provision of liquidity insurance. The PRA will also smooth the transition to Solvency II for insurers.

The MPC also views the domestic banking system as being much better placed to face the challenging outlook than during earlier periods of stress. Over recent years, regulators in the United Kingdom and internationally have required that banks have strengthened their balance sheets so that the financial system has become more resilient. The Financial Policy Committee expects that capital and liquidity buffers will be drawn upon as needed to support the supply of credit and in support of market functioning, and has recently reduced the counter-cyclical capital buffer rate from 0.5% to zero. This reduced regulatory capital buffers by £5.7 billion, raising banks' capacity for lending to UK households and businesses by up to £150 billion.

In addition, the FPC has decided that central bank reserves should be excluded from the exposure measure in the current UK leverage ratio framework with immediate effect. In so doing, the FPC's aim is to ensure that the leverage ratio does not act as a barrier to the effective implementation of policy measures that lead to an increase in central bank reserves, such as those taken by the Bank since the referendum.

The MPC remains committed to taking whatever action is needed to support growth and to return inflation to the target over an appropriate horizon.

How does this approach meet the Government's monetary policy objectives?

The MPC's objective is to maintain price stability and, subject to that, to support the economic policy of Her Majesty's Government, including its objectives for growth and employment. Price stability is an essential pre-requisite for economic prosperity. The MPC is acting to return inflation to the target sustainably by balancing the margin of slack in the economy it expects to arise with a temporary period of above-target inflation.

The UK is a highly flexible, dynamic economy. These characteristics will help it to move to a new equilibrium as its future relationship with the European Union becomes clear and new opportunities with the rest of the world open up. Many of the adjustments needed to move to that new equilibrium are real in nature, and are not the gift of monetary policy makers. Nonetheless, monetary policy can still play a role in smoothing part of this adjustment by appropriately balancing the forces acting to push inflation above the target with those expected to push activity below the economy's new path for potential output.

By promoting price stability in this manner, the MPC is supporting the necessary adjustment of the UK economy. The MPC's contribution is reinforced by coordinated action with the FPC and the PRA to maximise

the effectiveness of stimulus while guarding against any unintended consequences in the financial system. The collective efforts of the Bank's policy committees should remove any concerns about the availability of credit for viable private investment and household purchases during this period of transition. Today's actions by the MPC are designed to improve overall financial conditions facing households and businesses in the real economy.

In these ways, the Bank of England is promoting strong, sustainable, balanced growth and therefore making its most effective contribution to the United Kingdom's economic performance.