MONETARY POLICY AND FORWARD GUIDANCE
IN THE UK *

by
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1 INTRODUCTION

For the first time in some years the news on the outlook for economic activity in the UK over the past month or so has been overwhelmingly positive. Business surveys—of both current and future activity—look stronger and consistent with growth at least as high as what we used to think of as normal. Consumer confidence has moved up sharply. Hardly any indicator has failed to improve. This is all encouraging and very welcome. It is likely that the rate of the growth of the economy right now is at—and quite possibly above—the average rate in the 50 years up to the onset of the financial crisis that started in 2007. But this comes after a period of several years of virtually no growth; and those recent low growth years came after a disastrous period in 2009 when output plummeted. So it would be spectacularly misguided to think that some signs of more normal growth mean that the economy is back to normal; and it would be equally misguided to think that if growth were to be near trend monetary policy should be quickly returned to a more normal setting. There are two reasons for that—first, the recent encouraging signs of growth might not prove to be durable (though I think they will); second—and more significant—the economy has been operating far short of its potential and the amount of slack is almost certainly large enough to mean that a sustained period of above average growth is needed to remove it (Fig. 1). I believe that the main reason why it is now useful to offer guidance on the

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1The average rate of growth of GDP in the UK between 1955 and March 2007 was close to 2.8 per cent.
future stance of UK monetary policy is to reduce the risk that people believe that monetary policy would be quickly tightened once output began to rise at more normal rates. The nature of the guidance is simple; the message from the Monetary Policy Committee (MPC) is this: So long as inflation pressures don’t start heading in the wrong direction, we will not tighten monetary policy until a recovery is strong enough and sustained enough that it has made a meaningful dent in unemployment so that it at least falls to 7 per cent.

A key point here is that focusing just on the rate of growth of output is not a good guide to whether economic activity is running at a pace consistent with the control of inflation. Growth has to be seen in the context of the level of activity from which that growth comes. If that level of activity is significantly below a rate consistent with controlled inflation—as I believe is the case in the UK today—then it does not make sense to quickly return monetary policy to a more normal setting once growth moves to more normal rates. One indication that the level of activity is well below what can be sustainable, and consistent with inflation at the target, is that unemployment is far higher than during the long period before the financial train wreck and when inflation stayed close to target. Wage settlements have also been unusually low running beneath the actual (and expected) rates of consumer price inflation for some years. That suggests two things: first that slack in the

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Fig. 1. Evolution of GDP around Recessions and Banking Crises

Sources: OECD, Reinhart and Rogoff (2008), Thomson Reuters Datastream and Bank calculations.

Recessions are defined as at least two consecutive quarters of falling output.

Covers the G20 advanced economies over the period from 1960 to 2006. For some countries, data are not available back to 1960; for those countries, the sample starts at the earliest available date.

Big five banking crises are Spain (1977), Norway (1987) Finland (1991), Sweden (1991) and Japan (1992), as defined in Reinhart and Rogoff (2008).

Zero denotes the pre-recession peak in GDP, or the peak in GDP during the year of the banking crisis, as defined in footnote (c). For the UK quarter zero is 2008 Q1; the final quarter for the UK is 2013 Q2.
economy is significant and second that linking the horizon over which an exceptionally expansionary monetary policy continues to support demand to the rate of unemployment has merit.

Today I want to talk about forward guidance and what I see are its uses. But I want to talk at greater length about the sustainability of a period of more rapid growth and what it might mean for inflation pressures and optimal monetary policy. In doing that I will offer some thoughts on economic modelling and what I see as a deficiency in some of the most commonly used models of the whole economy.

2 Forward Guidance

Let me start with some observations about the guidance the MPC has recently given. As you will know the essence of it is this: that so long as inflation pressures remain consistent with inflation moving back to the target monetary policy will not be tightened until a recovery has been sustained long enough to take the economy much closer to its potential level of production such that unemployment is significantly lower.2

To my mind the single most useful thing about giving this guidance is that it makes clear that so long as inflation pressures remain controlled then a return to a more normal monetary policy is conditional on a sustained recovery in demand which brings down the rate of unemployment. Growth at average rates, or slightly above them, for a couple of quarters is most unlikely to bring slack in the economy or the level of unemployment down significantly. So the guidance implies that a—very welcome—couple of quarters of normal (or a bit above normal) growth should not mean that policy is about to be tightened. The reason I think guidance is helpful now is that it reduces the risk that a recovery that is still somewhat embryonic is not smothered by the anticipation that a tightening in monetary policy is imminent.

Since guidance was announced market interest rates in the UK have moved up—both at the short end of the yield curve and at longer maturities. I suspect this is largely because the weight of money is behind a view that the significant positive news on the economic outlook means that the 7 per cent unemployment level might be reached within around 18 months. This is rather sooner than I think is likely. It is plausible that the level of productivity—which has fallen enormously relative to the trend we have been on—will bounce back once growth becomes more sustained (see Fig. 2). If that is so unemployment is likely to fall rather more slowly than would be usual. None of this is certain. We shall see how things play out. Maybe the market moves will prove transient—maybe not. I should certainly be pleased if we saw unemployment fall fast and productivity move sharply back towards its trend path because that would mean growth was very strong while

2For details, see Bank of England (2013).

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inflation pressures might be contained since unit labour costs would be held
down by rising output per hour worked.

For whatever their reason, the financial market movements in the month
or so since guidance was given at the start of August—a period when the news
on economic activity and demand in the UK has been consistently positive—
have been quite significant. The 1 year OIS rate two years forward is up by
around 60 basis points (Fig. 3); the sterling effective exchange rate is up by
around 4.5 per cent (Fig. 4); two- to three-year swap rates (off which most
fixed rate mortgages are priced) are up by between 16 bp and 33 bp (Fig. 5).

These movements may not persist, but that is far from clear. Either way,
I find it hard to see them as a sign that forward guidance has somehow failed

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at the outset. Yet some have suggested that forward guidance has backfired because the economy has picked up which means that the slow process of normalization of monetary policy might have to begin before the middle of 2016, which was the date at which the MPC thought it was likely\(^3\) that unemployment might have fallen to 7 per cent.

I think there is a rather Alice in Wonderland, upside down logic to this. It implies that somehow the MPC find unwelcome signs of a recovery in the economy. I can assure you that we do not! I would be pleased if growth

\(^3\)This is speaking rather loosely. To be exact, the MPC judged at the time of its August Inflation report that the unemployment rate is as likely to reach the 7 per cent threshold before the forecast horizon in mid-2016 as after it. In other words, mid-2016 was the median estimate of the date at which the unemployment threshold would be reached.
turned out to be strong, productivity improved and inflation moved back towards the target level over the next 18 months. And if all that happened so that unemployment came down steadily and significantly then I should also be pleased to start the process of normalizing monetary policy. No one should want Bank Rate to be virtually zero for any longer than is needed. But it is quite possible to get average growth in the economy for 6 or 8 quarters—and maybe above average growth—and yet unemployment does not fall much because productivity growth is rapid. Not only is this possible, I think it is plausible. Figure 6 below shows just how strongly correlated are the growth in GDP and productivity. It is natural for productivity—a highly cyclical variable—to grow fast once demand picks up after a period of very anaemic growth. If this happened in a way that meant unemployment only fell very modestly it would also suggest that spare capacity might remain substantial and that a very expansionary monetary policy remained appropriate.

I don’t want to put much emphasis on some of the more bizarre interpretations as to what counts as success or failure of guidance. I think most businesses and households get the basic message—that so long as inflation pressures appear relatively well contained and consistent with a return to target then it is only when there has been a sustained recovery that has eaten significantly into slack that policy will be tightened. And in fact although I think the, relatively modest, tightening in effective monetary conditions since early August—the rise in bond yields, the appreciation of sterling; the increase in money market rates—is not in itself helpful, it is what I would call a benign tightening. By a benign tightening I mean that it is a response to stronger news on economic activity and confidence—and not a malign tight- ening, when a rise in money market interest rates and in bond yields comes as people expect higher inflation down the road.
Monetary Policy and Forward Guidance in the UK

So while the tightening in monetary conditions is not a very helpful consequence of the news we have had over the past couple of months the fact is that that economic news has been good. The surveys and the data on activity have been rather stronger than we might have expected at our August meeting (when we had already factored in some fairly favourable data relative to July). I would guess that right now we might have a rate of growth in the economy of between 2.5 and 3.5 per cent. I think that is unambiguously good. The key questions are whether it can carry on, and if it does, what does it mean for the trajectory of inflation and the appropriate monetary policy.

3 The Sustainability of a Recovery and Monetary Policy

I think there are good reasons to believe that for an economy that has been in a deep recession there can be multiple equilibrium paths forward. By which I mean that for a given stance of policy there can be different paths for output. On some of them people are more optimistic in a way that is self-confirming. On others, low confidence about activity also becomes self-confirming. I think it is pretty clear that the higher growth, more-optimistic path is better, and indeed much of the academic literature on multiple equilibria in the aggregate economy shows that some paths are unambiguously better than others (they are Pareto superior).

This idea that there are multiple paths for the aggregate economy each of which could be an equilibrium has a long tradition in economics. It is probably the central message of Keynesian economics. Keynes argued that expectations over future returns are volatile and crucial in shaping investment and consumption plans. Swings in households’ and firms’ expectations can move the economy from a good to a bad equilibrium, and vice versa.

But Keynes’ central message—that there can be multiple equilibria—has been lost in the standard models most economists have used over the past 10 to 15 years. These are models that get labelled New Keynesian, but in which assumptions are usually made to ensure that the model has a unique equilibrium for output and employment. Such models also have the property that the real economy tends to be self-correcting—shocks will take the level of output, investment and employment away from its steady path for a while but there are strong forces which attract them back towards the path they were on in the absence of shocks.

I have much sympathy with the idea that the central message from Keynes—that there can be multiple equilibria—has been lost in the standard models most economists, and central banks, have used in recent years. Roger


5Much of this literature formalizes ideas that are in chapters 5 and 12 of Keynes (1936).
Farmer⁶ and Lawrence Summers—among others—have made this point and
some of the ideas in Robert Hall’s recent Jackson Hole paper chime with it.⁷

For much of the time a view of the world that sees it as having strong
self-correcting characteristics that generates a path for output which fluctuates around a fairly smooth expansion path may be a reasonable approxi-

mation. But when shocks are really big the forces drawing real output and
employment back towards the path they had been on—a path that in some
sense remains a feasible one despite the shock—can be very weak. So weak in
fact that the economy may get stuck on a different trajectory for activity for
so long that for practical purposes it might as well be considered as a new
equilibrium path that does not converge back to the old one. One might—

somewhat loosely—think of this view of the world as one with multiple
equilibria.

Let me sketch⁸ one version of the multiple equilibria story which seems
relevant to the UK economy and to the sustainability of a path forwards from
here along which there is much higher growth. It seems sensible to start by
considering where we start from.

The financial crisis hit the UK economy hard. In 2008 and 2009 a
dramatic rise in uncertainty and a rational fear that future incomes might be
much lower sharply reduced the value of assets. That reinforced the pessi-
mistic assessment of people’s own finances and of the general economic
situation taking their expectations to new lows (Fig. 7). Unsurprisingly, con-
sumption spending declined sharply (Fig. 8).

Investment fell even more sharply than consumption. The decline in real
interest rates on safe assets was not reflected in a fall in the cost of finance to
companies so there was no offset to the joint effects of lower demand and
falling confidence (Fig. 9).

Employment declined, but by less than anticipated, in part because
employers were mindful of the costs of rebuilding a workforce later and
workers accepted pay freezes to preserve their jobs (Fig. 10).

With activity falling faster than employment, labour productivity
dropped. Real wages fell, in line with weak productivity (Fig. 11). But unit
labour costs rose, pushing up inflation (Fig. 12).

Starting from such a situation and after a series of such large negative
shocks one can envisage how an economy might evolve along two very
different paths. One is a ‘low confidence, weak growth’ path. Investment
would remain weak, labour productivity would not pick up, and real wages
would stagnate to match poor productivity. Because of weak productivity,

⁶Farmer (2013).
⁷Hall (2013).
⁸This is very much a sketch—and is not a formal model. But there are formal models consistent
with this sketch. For formal models of the link between multiple equilibria and policy see,
for example, Cooper (2002) and Morris and Shin (2000). See also King and Wolman (2004).
unit labour cost growth might continue to be positive, so cost and inflation pressures would not look unusually weak even though the economy is in a deep recession. Falling real wages would not bring forth a return to full employment because demand for labour would not rise enough in an environment where firms expect demand for their goods to continue to be weak. I think this is roughly the path the UK has been on for much of the period since the financial train wreck.
Fig. 9. Business Confidence and Investment

Sources: Bank of England, BCC, CBI, CBI/PwC, Markit Economics, ONS and Bank calculations.

Aggregate measures of business expectations from the BCC, CBI and Markit/CIPS surveys have been produced by weighting together sectoral surveys using nominal shares in value-added. The surveys used are: BCC turnover confidence (non-services and services), CBI business optimism (manufacturing, financial services, business/consumer services and distributive trades) and Markit/CIPS orders (manufacturing) and business expectations (services). The BCC data are non-seasonally adjusted. The aggregate measures have been adjusted to have the same mean and variance as quarterly GDP growth over the period 1999–2013 Q2. Survey indicators have been moved forward one quarter.

bChained-volume measure. Business investment data have been adjusted by Bank staff to take account of the transfer of nuclear reactors from the public corporation sector to central government in 2005 Q2. Data are to 2013 Q1.

LHS, left-hand scale; RHS, right-hand scale.

Fig. 10. Private Sector Output and Employment

Sources: ONS (including the Labour Force Survey (LFS)) and Bank calculations.

aLFS private sector employment. Calculated as the difference between LFS whole-economy employment and total public sector employment excluding publicly owned English further education corporations and sixth-form college corporations from the ONS’s public sector employment release, adjusted to be on a calendar-quarter basis. Data start in 2000 Q2.

bMarket sector gross value-added. Chained-volume measure at market prices.
But an alternative, self-fulfilling upswing may also be possible. On this path productivity growth is faster, real wages can rise, and rising real incomes can justify greater spending. In this case greater optimism is self-confirming and greater activity generates a sustainable upswing during which productivity is stronger and higher incomes make the expectation of higher demand consistent with household plans.

Inflation pressures generated within the economy may be quite similar along both paths, but for different reasons. In the first, inflation pressures do
not fall much because unit labour cost growth is not unusually low; in the second, inflation pressures do not rise since stronger growth itself helps hold down unit costs of production because endogenous productivity growth creates flat costs of production.

This story—where different paths of output and slack generate rather similar paths for costs and inflation—would mean that the link between spare capacity and inflation would be quite weak. In other words, the Phillips curve would be quite flat. The evidence from a range of countries in recent years is consistent with that. A recent IMF study found that inflation increases almost one for one with longer-term inflation expectations but that a 1pp increase in cyclical unemployment would only lead to a 0.1 pp reduction in contemporaneous inflation. Figure 13 shows the distribution of their time-varying estimates of the slope of the Phillips curve for 21 advanced economies. The slopes seem to have fallen to exceptionally low levels.

But there is considerable uncertainty around the slope of the Phillips curve. Empirical estimates appear to depend on the precise specification of the equation, the estimation procedure and the sample period. Multiplicity of equilibria may be one reason behind these difficulties in pinning down the form of the Phillips curve.

In theory there is a very big difference between being in a world in which there are multiple equilibria or in one where the pull back towards a unique equilibrium level of real activity is very weak. But the practical difference may actually be rather small over a horizon of several years rather than several years.

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*Fig. 13. Range of Estimates of the Slope of the Phillips Curve for 21 Advanced Economies*

*Source: IMF (2013, Fig. 3.6 (2)).*

Country sample includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the UK and the USA.
decades. That is important because the relevant horizon for monetary policy decisions is more likely to be several years than several decades.

4 Policy Implications

What implications does the possibility of multiple equilibria have for monetary policy in the UK? Initially, the main distinction between the paths that I sketched above appears to be one of confidence: in the first, households and firms are pessimistic about their future earnings, whereas they are optimistic in the second. In both cases, beliefs are self-confirming.

I believe that monetary policy can help to kick the economy onto the better output path. In part this could be done by changing people’s expectations about the future. Another possibility is to improve the fundamental conditions under which the economy operates. Lowering interest rates would encourage consumption and investment spending to be brought forward. Those effects can work even if the economy has a unique long-run equilibrium because it can accelerate the transition back to it. Whether or not there are multiple equilibria, expectations and confidence can become more positive with a more expansionary monetary policy.

The recent rise in activity and confidence in the UK could be—I believe—sustainable and self-confirming. Until quite recently it seemed to me that we remained on a path much more likely to be a low-confidence, weak-activity equilibrium. I favoured a more expansionary monetary policy to help shift the economy onto a better trajectory. There are some signs that we may now be on such a trajectory—and that is the reason I think keeping Bank Rate and the stock of asset purchases at their current levels is the right policy for now.

I expect stronger growth to be consistent with inflation getting back to target through the course of next year because any impact faster growth might have on some input costs to firms will be offset by stronger—and cost-reducing—growth in productivity. What the self-confirming and stronger path for output and confidence does not need right now is tighter monetary policy. That is why I think the guidance that has been given on monetary policy is helpful. It says that we will not raise interest rates until unemployment falls to 7 per cent, provided inflation is under control and there are no risks to financial stability.

5 Current Policy

Let me come back to the current position in the UK and the policy issues. I would like to make four simple—indeed obvious—points:

1. Signs of stronger activity and confidence are very welcome—there is absolutely no double edge aspect to this that somehow comes from a tension with our forward guidance.
2. Whether stronger activity means we get to a 7 per cent unemployment rate much faster depends on the evolution of labour supply, and on how productivity responds to stronger demand. For any given path of output the change in unemployment is very sensitive to any change in productivity. If productivity responds positively there may be only a shallow fall in unemployment, despite stronger output growth. Table 1 illustrates this sensitivity.

3. The 7 per cent unemployment figure should be seen as a signpost, and not a preferred measure of slack; it is not a level of unemployment such that once you move below it slack is gone. One very powerful reason for stressing this is that I believe the unemployment numbers mean something rather different from what has been typical in recent decades. This is because so many people are now on part time work and an unusually high proportion of them want to work more. David Bell and David Blanchflower investigated the implications in a recent paper.10 They define underemployment as a situation in which someone is either unemployed, or is employed but would like to increase hours worked at the going wage rate. (They subtract the hours those in employment would like to work less from their underemployment measure.) Bell and Blanchflower note that unlike unemployment, their measure of underemployment has continued to rise during most of the recession. Figure 14 illustrates this. Before the recession, those wishing to reduce their hours were balanced by those wishing to increase their hours, so the underemployment rate tracked the unemployment rate closely. But since the financial crisis, on a net basis, those working would have liked to work

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**Table 1**

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<th>Unemployment rate at the three-year horizon (per cent)</th>
<th>Average four-quarter GDP growth over the forecast period (per cent)</th>
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<td>Average four-quarter growth in productivity per hour over the forecast period (per cent)</td>
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*Sources: ONS (including the Labour Force Survey) and Bank calculations.

*Unemployment rate is a percentage of the economically active 16+ population. GDP is chained-volume measure at market prices. Productivity is whole economy output per hour. This highly stylized table gives a mapping between changes in output and changes in the unemployment rate, highlighting the sensitivity of that mapping to the response of productivity per hour. These numbers are only illustrative and are based on a number of simplifying assumptions about the elasticity of labour demand with respect to output, the extent to which increases in labour demand are met by increases in average hours worked rather than in the number of employees, and the participation rate.

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10 Bell and Blanchflower (2013).
more hours. So the underemployment rate exceeded the unemployment rate. This means that there is likely to be more slack in the labour market than the unemployment rate suggests.

4. The absence of rising inflation pressures alongside the better news on activity gives a compelling case for not normalizing policy until recovery has been sustained and a meaningful reduction in unemployment has been achieved.

6 Conclusion

I think there are good reasons to believe that for an economy that has been in a deep recession there are likely to be multiple equilibrium paths forward. On some of them people are more optimistic in a way that is self-confirming. On others, low confidence about activity also becomes self-confirming. It seems plausible that you can have quite different paths for activity with very similar paths for inflation—on the low activity paths unit labour costs may be very similar to the high activity paths. Low growth in nominal wages can be offset by low growth in productivity on the low growth path, while higher wages are offset by higher productivity growth on the high growth path. This is a powerful reason why an inflation targeting central bank should do all it can to get the economy onto the higher growth path. I view the main way in which forward guidance can help in the UK now is to raise the chances of staying on that more favourable path. I believe we may be able to achieve that with the current setting for policy. That is a more optimistic position than I took a few months ago when I believed that resuming asset purchases was warranted. The recent rise in activity and confidence has the potential—I believe—to be sustainable and self-confirming. This is not guaranteed. But I
am now more confident that we are on path to recovery than at any time since I joined the MPC in the first part of 2009. What a potentially self-confirming and stronger path for output and confidence does not need right now is tighter monetary policy. That is what the guidance that has been given by the MPC is designed to avoid.

Of course we could well have a slide in activity and in confidence for other reasons—there is no shortage of things that could make that happen. But if that is how things play out we can and should do something about it.

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