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January 9, 2013

UK Economics and Interest Rate Strategy

Monetary Targetry: Possible Changes under Carney

We can see some merit in a temporary change in BoE monetary policy towards a nominal GDP growth target. But it would come with significant risks and does not have a body of academic opinion behind it. A nominal GDP *level* target (a prospect raised in speeches by the future BoE Governor, Mark Carney) holds even less credence, in our view. Much more likely under the new BoE Governor, we think, would be changes in communication (conditional interest rate commitments) and, should the economy deteriorate further, purchases of non-gilt assets on a larger scale. We think a rate cut would also be a higher probability under the incoming governor.

Market expectations for policy change are high: Investors and the British press seem increasingly convinced that the appointment of Mark Carney, who starts his new role as Bank of England Governor on 1st July 2013, will bring significant change to the way monetary policy is conducted, possibly towards a nominal GDP growth, rather than an inflation, target.

We analyse the case for three alternative types of target: A price level target, a nominal GDP growth target and a nominal GDP level target. All have their merits and drawbacks. We can make a case in the UK for a nominal GDP growth target so long as it is: a) temporary; b) conservative; and c) has a clear exit strategy. But a change to a target in terms of *levels* (particularly a permanent one) would come with additional levels of complication and risk that make them unpalatable, in our view.

Interest rate strategy: While we acknowledge that extending rate guidance may flatten the front end slightly, we fear changing to nominal GDP targeting will only increase uncertainty and steepen the curve, hence hindering the economic recovery.

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Monetary Targetry: Possible Changes under Carney

Summary and investment conclusions

Investors and the British press seem increasingly convinced that the appointment of Mark Carney, who starts his new role as Bank of England Governor on 1st July 2013, will bring significant change to the way monetary policy is conducted, possibly towards a nominal GDP, rather than an inflation, target. We agree that changes seem likely in terms of communications (with some element of conditional – (soft) pre-commitment) and that, in the event the UK economy deteriorated further, significant non-gilt asset purchases would be significantly more likely under the incoming Governor. What is far less obvious to us is that a change in monetary targetry would follow (or precede) the arrival of a new Governor. We can just about see a case for a *temporary* nominal GDP growth target, with a clear exit strategy. But a *permanent* shift to a nominal GDP target would, we think, be foolhardy.

A new BoE Governor brings the prospect of change

When the ship of state hits rough water and begins to pitch and roll, there is a tendency for those on board to query whether the steering mechanism has been correctly set. Certainly, in the midst of economic difficulties the question of whether the current inflation target needs revision has become topical. In the US, the Federal Open Market Committee decided on Wednesday December 12th to relate its future interest rate decisions to a specific quantitative level of unemployment (below 6.5%) as well as to future inflation rates.

Meanwhile, the British press has been focused on a [speech](#) by the Governor-elect of the Bank of England, Mark Carney, on 'Guidance', presented at the CFA Society in Toronto, on Tuesday December 11th. This speech commented on possible changes to targetry in Canada, both under normal and extraordinary conditions, and has been parsed both by an excited British Press and, according to reports in the *Financial Times*, by HM Treasury 'for clues about possible future changes to the UK's system of monetary targetry ('Carney's radical GDP idea welcomed', *FT*, Thursday December 12, 2012, p. 1).¹ This speech was not the first occasion on which Carney has spoken on this subject, and there was an earlier, longer, more focused speech on this subject, entitled [A](#)

¹ The Report, by Chris Giles and George Parker, opens with the statement that "The Treasury opened the door to a more aggressive monetary policy yesterday, as aides to the chancellor welcomed the next Bank of England governor's radical views on stimulus measure for flagging economies."

[Monetary Policy Framework for All Seasons'](#), given at the US Monetary Policy Forum in New York on February 24, 2012.

Two types of proposals... Indeed, there have been numerous proposals relating to monetary targetry aired recently. These can, perhaps, be divided into two main categories. The first involves a specific change to the objective of policy. The second relates to a change in the method of communicating the Central Bank's (or MPC) intentions on its future policy, primarily with respect to future levels of short-term interest rates.

Three types of target change: Although Carney did not propose its adoption, it is, perhaps, easiest to start listing possible changes to objectives by examining the case for shifting the target from the *rate of change* of prices, the inflation rate, to the *level* of prices. Almost any quantitative target can be set either in rate-of-change terms or in level terms, and we want to examine some of the strengths and weaknesses of the two in general terms at the outset. Most suggested changes involve augmenting the simple inflation (or price level) target with an additional variable that the Central Bank (MPC) is meant to assign specific weight to achieving (put into its 'objective function' in professional jargon). Thus, a nominal GDP target (either changes or levels) represents a move to give real GDP an equal weight to inflation. Having a (target) value for the unemployment rate is a variant of this. Concern about financial stability would suggest giving some weight, in the objective function, to various potential metrics of financial fragility, e.g. credit growth, housing price inflation, private sector indebtedness, etc.

We shall deal with three main proposals:

- A. A Price Level Target
- B. A Nominal GDP Growth Target
- C. A Nominal GDP Level Target

Our method will be to examine each proposal against the empirical background of the UK's actual experiences since 1997, when the present system began. Like all counter-factuals this is illustrative, rather than accurate, since, if policy had been different, the numbers would also have changed. In principle, one should put the policy change through a correct model of the economy. But we do not have such a model. At the same time we will note Mark Carney's

comments on each proposal. We also review the suggestions for enhanced communications of future policy intentions, and then discuss how the existing instruments of monetary policy might be reinforced.

Morgan Stanley's global economists think the idea of changing central bank mandates has merits: In [Debt Dominance, Mandates and the Impossible Puzzle](#), Manoj Pradhan argues that until private and public sector debt become more sustainable, monetary policy will have to choose higher inflation over the risk of derailing growth and deleveraging. He therefore argues that it is time to change central bank mandates. However, he also points out that the actual manner of implementing this change of mandate remains debatable and will likely be heavily contested. One way to achieve this would be to set a conditional inflation target – one that allows inflation to be higher until both growth and debt move to sustainable levels. We agree that a temporary change in target makes some sense and can see a case for a temporary nominal GDP target. Even this, however, is not without risks.

Alternative Targets

A. A Price Level Target

What is it? Almost any target can be expressed in terms of levels rather than rates of change. So we start with the simplest possible change, that of expressing the present target (of 2% growth in CPI) in terms of levels rather than as a rate of change. Note that a price level target does not imply that the target be a constant fixed level of prices; rather, if the optimal chosen rate of change of prices (the inflation rate) was considered to be 2%, then the optimal price level target would also be for the desired price level to rise by 2% per annum.

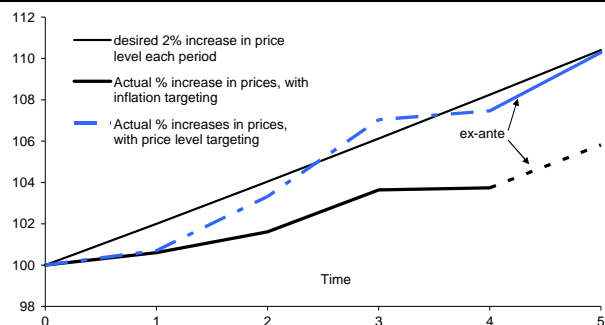
Why it is different to an inflation target: The difference between the two, instead, relates to the expected response (by the Central Bank) to past misses of the target. In the case of an inflation target by-gones are by-gones; independently of what happened in the past, at each decision time, the Central Bank seeks to recalibrate its instrument to hit the fixed inflation target over the chosen horizon. In contrast, with a price level target the Central Bank has to aim to claw back (some part of) prior misses from the inflation target; in other words, *history matters*.

The differences in terms of monetary policy stance: So long as the actual level of prices is below (above) the desired level of prices, a price level target is more (less) expansionary than an inflation target. If there is an inflation target, a series of misses with the same sign, perhaps as a result of some

systematic error in the forecasting model, can drive the actual ex post medium- and longer-term inflation rate quite far from the desired price level target. In contrast, if there is a price level target the relevant authority is under much more pressure to reverse systematic errors earlier.

The difference between the two is shown schematically in Exhibit 1. In this example we have two periods of deflationary shocks, 1-2 and 3-4, and one period of inflationary shock, 2-3; with the common shocks being (here assumed to be) primarily deflationary, the average ex post (periods 0-4) and expected ex ante (period 4-5) inflation is lower with an inflation target than with a price level target.

Exhibit 1
Different paths for inflation under different policy regimes



Source: Morgan Stanley Research

Reasons to like a price level target: So the first, and main, reason for possibly preferring a price level to an inflation target is that it provides much more medium and longer term certainty of keeping to the inflation path as *initially* advertised. Second, on the *assumption* that all agents have forward-looking expectations and that the price level target is credible, the Central Bank might not have to do very much. For example, if the actual level of prices was above the target level, agents (i.e. households and firms) would then expect short run price deflation. That expectation would raise real rates, for any given level of nominal rates, thereby tending to bring about, quasi-automatically, the desired deflation back to the target level.

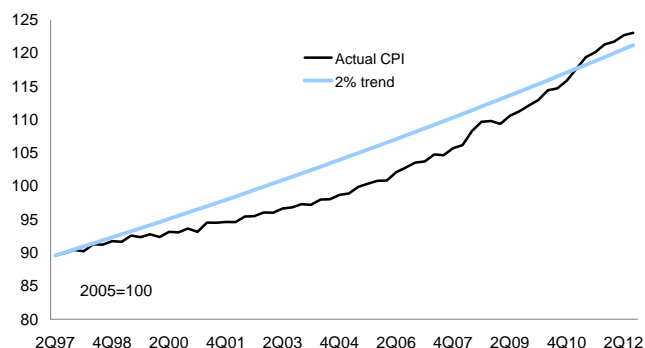
(Stronger) reasons not to like a price level target: First, unfortunately the bulk of the evidence suggests that people form their expectations in a backwards-looking way. If actual prices are *above* the desired level, it will probably have been because they have been rising faster than desired recently. If people expect these price rises to continue, then *forcing prices to fall* (back to the desired level) is a vastly tougher exercise

than getting them to rise no faster than a 2% inflation target. Unless both prior assumptions (forward looking expectations and a credible price level target) were largely met, the adoption of a price level target could involve a politically, socially and economically undesirable level of aggressive intervention by the monetary authority; just too tough a discipline. Second, there is also usually an implicit assumption that all shocks are demand shocks. Suppose a major supply shock (e.g. sharply higher oil prices) lifts price levels above the desired path, and the authorities have the choice in the next period of sticking with the 2% inflation target, or of imposing deflation (e.g. by sharply raising interest rates) to return to the desired price level, which would you expect them to prefer? For all such reasons, in practice Central Banks (and MPCs) have stuck with inflation targets rather than move to price level targets.

A price level target would suggest immediate significant policy tightening is needed: With a price level target, history matters, but it also matters when history is supposed to begin, and this latter is a subjective and arbitrary issue. For our purposes we choose two dates to start our history. The first is the beginning of the MPC in Q2 1997, and the second is when the target changed from RPIX to CPI in Q1 2004. We show both in Exhibits 2 and 3. In the first example, from 1997 to 2003, actual CPI inflation was consistently slightly below the 2% trend line. Price level targeting would have implied easier monetary policy (than then adopted) at a time when, with the benefit of hindsight, monetary policy is now regarded as sufficiently accommodating. Had history begun in 1997, the period 2003-2011 would have revealed a textbook reversion to the desired price level. Had history begun in 2003, the conclusion would have been that subsequent policy throughout was considerably too lax (judgment that would not meet universal support and acclaim). By December 2012, the price level would now be almost 7% above 'desired' levels (i.e. the level implied by steady 2% price increases). Whichever the starting point, the implication of a 2% price level target would be, if taken seriously, that monetary policy should now be immediately *tightened*, and significantly so if history was deemed to begin in 1Q 2004.

Exhibit 2

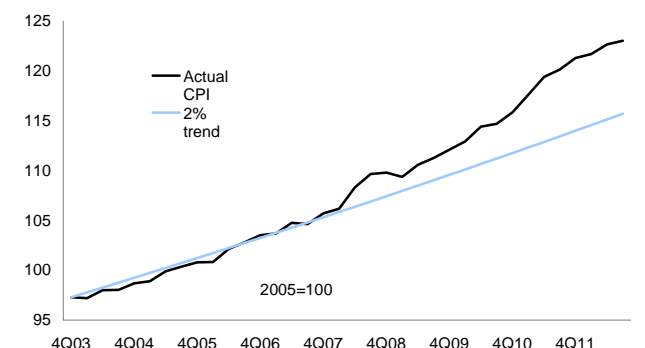
Actual CPI Inflation versus Price Level Target (2% target) beginning in 2Q 1997



Source: ONS, Morgan Stanley Research

Exhibit 3

Actual CPI Inflation versus Price Level Target (2% target) beginning 1Q 2004



Source: ONS, Morgan Stanley Research

Which is why it is a non-starter for the UK... Of course, no one would take such a proposal seriously at this time (significantly and immediately tightening monetary policy). This numerical example demonstrates, even more clearly than concern about backwards-looking expectations, why proposals for a price level target must be regarded as a non-starter. Particularly given the prevalence of supply-side shocks in recent years that have driven UK inflation higher.

... and Carney has decided it isn't worth pursuing: Historically, the Bank of Canada has shown more enthusiasm for the putative benefits of price level targets (PLT) and has done more research work on PLT than any other Central Bank. Nevertheless, in his February 2012 speech, Mark Carney describes some research which has persuaded the Bank of Canada that price level targeting is not an objective worth pursuing, and that, in our view, is fortunate. In Mr. Carney's view, the benefits look small and even those modest gains

depend on the policy regime being credible and well understood. (When the Bank investigated ‘in a laboratory-type setting’ how people would adapt to price level targeting, people changed their behaviour but without perfect understanding). See Appendix for a full extract from this speech.

B. A Nominal GDP Growth Target

What it does: The adoption of a nominal GDP growth target augments an inflation target with an equal-weighted target for real growth. The effect is to make the two objectives inversely correlated; if real growth is relatively sluggish (buoyant) the monetary authority has to aim for a faster (slower) rate of inflation.

Key side effect – more inflation uncertainty: This has the obvious disadvantage that future certainty about inflation becomes much less than under an inflation (or price level) target. In order to estimate medium- and longer-term inflation rates, one has first to take some view about the likely sustainable trends in future real output. This latter is very difficult to do at the best of times, and the present is not the best of times.² So shifting from an inflation to a nominal GDP growth target is likely to have the effect of raising uncertainty about future inflation and weakening the anchoring effect on expectations of the inflation target.

Why then do this? There are several possible reasons:

- **To get the economy out of a rut:** *Problem: the last time any thing like this was tried in the UK it ended in tears.* First, assume that after a negative shock to real output the economy does not bounce back to its normal real equilibrium (as most DSGE (dynamic stochastic general equilibrium) forecasting models implicitly assume) but gets stuck in a low growth, low productivity rut for a lengthy period of time. If so, the idea is that the temporary injection of more monetary easing (higher temporary inflation) might be able to move the economy more rapidly from a low/poor equilibrium growth path back to the better, higher growth path. For those with a long memory, this hope seems reminiscent of the ‘a dash for growth’ attempted under various Governments in the 1960s and 1970s. Then the idea was that such a dash for growth would raise investment, which would then

raise productivity, thereby holding down unit labour costs and raising competitiveness. This latter would increase exports, thereby easing the balance of payments constraint, and allowing faster sustainable growth. It all ended in tears of course, with high inflation, no improvements in competitiveness and a trip to the IMF.

- **To erode the debt burden:** *Problem: in the UK’s case, most would assume a nominal GDP growth target was effectively a significant rise in the inflation target.* A second reason for moving to a nominal GDP growth path could be that the public sector is heavily indebted. If it cannot grow its way out of this debt, it will have to inflate the debt away (assuming no default). A nominal GDP target recognizes this ineluctable set of alternatives. Maybe so, but is it not still premature to embrace higher inflation as a route for reducing real indebtedness? Moreover, unanticipated inflation is a far better way of reducing debt burdens than anticipated inflation. Many, perhaps most, observers, partly in the light of Japanese experience, are sceptical about sustainable real growth in the UK in future of more than about 1.5% p.a. Would it really be beneficial to blazon forth the claim that, if so, the MPC would be obligated to aim for a higher inflation rate of around 3/3.5%?

Practical difference to policy under an inflation target

would have been small: Once again it may be helpful to look at the counter-factual of what it might have felt like if the UK had been operating under a nominal GDP target since 1997. Actually, it is not clear that much would have changed from our actual experience. Recall from Exhibit 2 that inflation slightly undershot its target from 1997 until 2006, and then overshot from 2006 to 2012. Since real growth was, with the benefit of hindsight, above trend in the earlier period and below trend in much of the second half, this is exactly what a nominal GDP target would have prescribed. This inverse correlation between the systematic deviation of inflation from the target on the one hand and real growth on the other was not quite enough to stabilize nominal GDP growth on average, but it limited the difference in nominal GDP growth in the two periods to about 1.0%, averaging just over 5% until 2007, and about 4.0% over 2010 and 2011, see Exhibit 4.

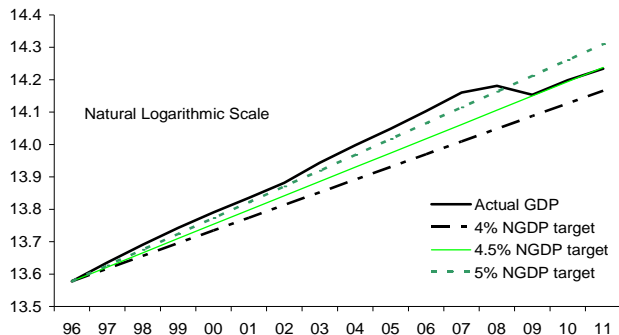
² Macro-economists are already deeply concerned about trying to assess sustainable growth rates. Moving to a nominal income target will make everyone else (e.g. Trade Union leaders, pension fund trustees, etc., etc.) equally obsessive about trying to glimpse this will-o’-the-wisp concept.

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Exhibit 4

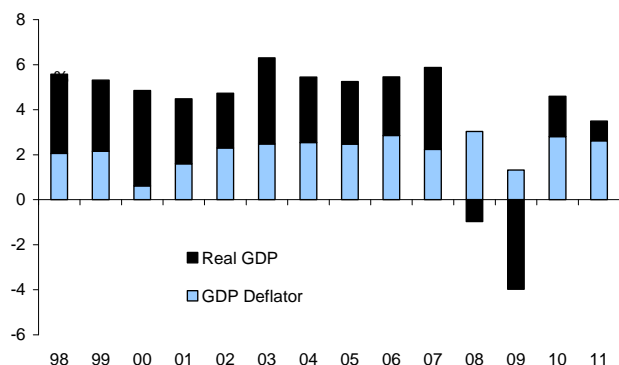
Nominal GDP under various scenarios



Source: ONS, Morgan Stanley Research

Exhibit 5

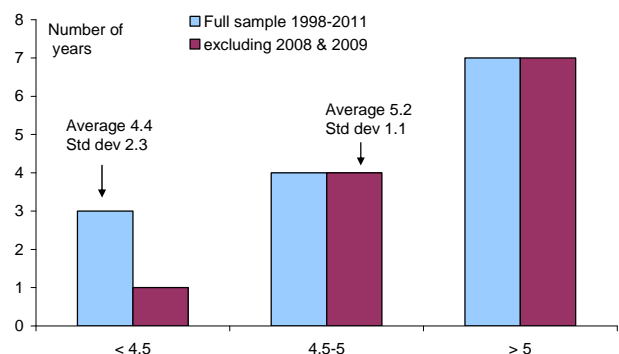
Annual Nominal GDP growth by component (%)



Source: ONS, Morgan Stanley Research

Exhibit 6

Distribution of Nominal GDP growth since 1998



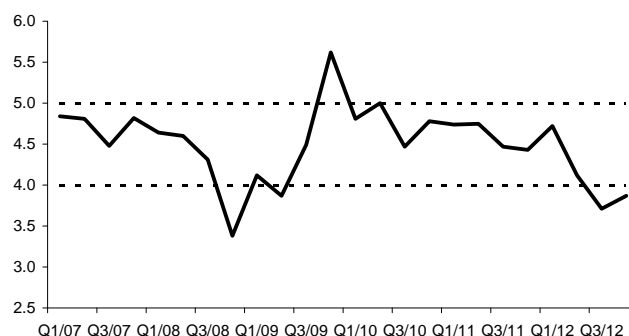
Source: ONS, Morgan Stanley research

But these are *ex-post* data, and the MPC sets interest rates on the basis of *expectations* of future values. So, what we have also done is to look at the Bank of England's forecasts (from

past *Inflation Reports*) of real GDP and of CPI two years hence, starting in February 2007. We treat this as a noisy proxy for a forecast of nominal GDP. This is shown in Exhibits 7 and 8. What this shows is that, with the exception of the Inflation Forecasts from November 2008 to August 2009, when interest rates were being slashed and QE1 started, the (proxy) *Inflation Report* forecast for nominal GDP remained extremely close to an average of 4.5%. But note that they have once again now fallen below 4%.

Exhibit 7

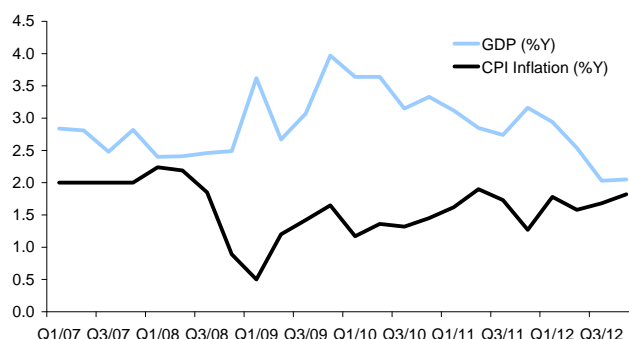
BoE two-year ahead Nominal GDP forecasts (%Y)



Source: Haver Analytics, Morgan Stanley Research

Exhibit 8

BoE two-year ahead Real GDP and CPI Inflation forecasts (%Y)



Source: BoE, Morgan Stanley Research

All this suggests that the practical empirical differences between a nominal GDP and an inflation target would actually be relatively minor most of the time, although would currently suggest further modest stimulus was justified. Indeed, this has led some commentators to even suggest that the MPC has all along been really a closet nominal GDP targeter.

We don't think that the BoE is already a closet nominal GDP growth targeter though: *The similarity between the*

outcome under inflation targeting and what might have been delivered had the MPC been following a nominal GDP growth target of about 4.5% or slightly higher, should be considered accidental. In the earlier years of the independent MPC, the undershooting of the inflation target was not the result of looking to offset fast real GDP growth. Instead, the MPC mistakenly expected that the sharp, and largely unexpected, appreciation of sterling in 1997 would (partially) reverse. Hence, they tightened policy to try and offset faster export growth and faster inflation than actually occurred. The undershooting of growth forecasts and overshooting of inflation from 2009 onwards were also (partly) due to a misreading of the likely implications of a sharp exchange rate adjustment, in this instance the devaluation in 2008/9. Exports were (systematically) expected to rebound more, and the domestic inflationary effect of the devaluation was (somewhat) underestimated.

Monetary policy cannot generate faster medium- and longer-term real growth in the economy: Perhaps the main claim of monetary economics, as persistently argued by Friedman, and the main reason for having an independent Central Bank, is that over the medium and longer term monetary forces influence only monetary variables. Other real (e.g. supply-side) factors determine growth; the long-run Phillips curve is vertical. Do those advocating a nominal GDP target now deny that? Do they really believe that faster inflation now will generate a faster, sustainable, medium- and longer-term growth rate?

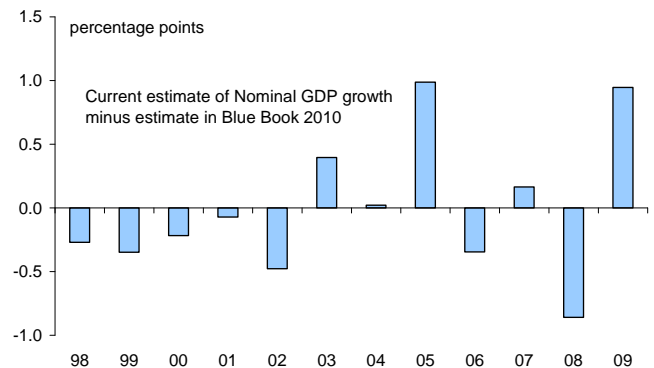
And there is a problem in setting the level of the target... If we knew what the future sustainable long-run rate of growth would be, we could set a current nominal GDP growth target that would on average deliver that, plus 2% inflation. But we do not. Moreover, the view is steadily gaining ground that it is more likely, than not, that real growth in the future will be below the average of past decades; technological innovation may slow (see for example, Robert Gordon [Is US economic growth over? Faltering innovation confronts the six headwinds](#) CEPR September 2012) and demographic developments will be adverse. So, if we wanted to maintain price level stability, with inflation at 2%, we should be considering a nominal GDP growth target of slightly under 4%. That is not what the advocates of such a target propose. In recent articles in the *Financial Times*, both [Brittan](#) and [Skidelsky](#) have argued for a 5% nominal GDP target. If the long-run rate of sustainable growth was, say, 2%, how would it help to have inflation average 3% rather than 2%?

... **let alone operational shortcomings:** A nominal GDP target has several operational shortcomings in comparison

with an inflation target. The data for CPI are available within three weeks of the end of each month. Nominal GDP data are only available quarterly, with a lag of two months from the end of the quarter. CPI data, once published, do not (normally) get revised. Whereas part of the frequently sizeable revisions to real GDP estimates is usually due to a switch between the real and inflation element of GDP, nevertheless nominal GDP figures themselves do become significantly revised, as shown by Exhibit 9.

Exhibit 9

Nominal GDP growth is also significantly revised



Source: Morgan Stanley Research, ONS

So, under an inflation target the MPC at least has a good idea of from where it is starting. Under a nominal GDP growth target the MPC would be flying through a current fog.

Under a nominal GDP growth target the MPC would be flying through a current fog

Communication is much harder too: The prime aim of setting, and achieving, a monetary target is, surely, to maintain price stability. Communication of this role is easier when the index involved has a clear meaning to a wider audience. A Consumer (or Retail) Price Index has such a clear meaning; the GDP deflator has not (hands up any reader who really understands it).

And it involves a confusion of monetary and fiscal roles: Under nominal GDP targeting, the roles of government and central bank would become even more blurred than they are at present. Governments are far more able to affect the medium-to-long-run real sustainable growth rate of an

economy through fiscal policy than are central banks through monetary policy.

Verdict: In normal times a switch from an inflation target to a nominal GDP growth target would be a distinctly retrograde step. But times are not normal.

The case is somewhat stronger in exceptional times, as now: Fiscal policy is constrained by the exceptional (for peace-time) size of the deficit and speed of increase of public sector debt, with the prospect of a heavy future burden, courtesy of an aging population. Financial liberalisation is being reversed. The normal engines of growth have gone quiet. Whatever the long-run sustainable rate of growth may be, it would surely be above the present near stagnation; that is, unless the ONS has been guilty of a horrible underestimation.

... but it would need to be temporary with a built-in exit strategy... Assuming that the longer-term sustainable rate of growth is higher than recently achieved, though we do not know by how much, there is a case for a period of even more expansionary monetary policy, than in the recent past. But in view of the disadvantages of maintaining a nominal GDP target, outlined above, any such short-term extra-expansionary measures should be temporary with a built-in exit strategy, once recovery appears to have been obtained. It is in this context that the FOMC's recent statement that it will maintain highly accommodative policies until unemployment falls below 6.5% (or until inflation expectations become unhinged) should be seen. Carney refers to this new move quite favourably in his latest speech (see appendix).

... and with a conservative target: Again, in normal times, a Central Bank should *not* target unemployment. The 'natural' rate of unemployment is affected by many 'real' factors, such as the structure of unemployment and disability benefits, the determinants of migration, etc., over which the Central Bank has no control. Nobody knows what the Non-Accelerating Inflation Rate of Unemployment (NAIRU) is at any time. It was the attempt to keep unemployment at a level that turned out to be below the NAIRU that gave us ever-increasing inflation, followed by stagflation, in the 1960s and 1970s. We could all too easily go back there. But so long as the choice of the unemployment threshold is conservative and the policy clearly indicated to be a temporary response to economic crisis, one can see its potential merits.³

³ Interestingly, investors in the US T bond market apparently saw the shift to this rule guidance, from the previous calendar guidance "as meaning at least slightly more risk of an earlier start to tightening, more potential volatility going forward in response

In the US the main problem has lain in the labour market. Real growth has been much stronger than in the UK. It has been the other way around in the UK with quite strong employment figures, but, with declining productivity, stagnant real growth. So in the UK context, the equivalent might be a temporary target for real GDP growth. But what should that threshold be? How conservative (low) should it be? And does it not put excessive weight on the fallible initial estimates of the ONS?

That obviously brings one back towards the concept of a nominal GDP target. If it was to be proposed that in the UK, as a *temporary crisis measure*, the MPC should aim for a growth in nominal GDP of 4.5% in each year for the next two years (and then revert to the inflation target), it would be hard to get too upset.

C. A Nominal GDP Level Target

Mark Carney is not proposing a nominal GDP *growth* target. Instead, he is clearly suggesting the adoption of a nominal GDP *level* target:⁴ "If yet further stimulus were required, the policy framework itself would likely have to be changed. For example, adopting a nominal GDP (NGDP) level target could in many respects be more powerful than employing thresholds under flexible inflation targeting" (full extract in the appendix). Although, in his speech earlier in February 2012 it was clear that he was referring to the case for a *temporary* nominal GDP level target ("NGDP-level targeting may thus merit consideration as a temporary unconventional monetary policy tool").

Mr. Carney argues that if nominal GDP targeting is not fully understood or credible, it can, in fact, be destabilizing. However, he argues that in exceptional circumstances, at the zero lower bound, the policy could be more credible and easier to understand. We aren't convinced that, even in present circumstances, even a temporary nominal GDP level target would be wise.

As when we earlier compared an inflation target with a price level target, targets in *levels* tend to be much more demanding and aggressive than those in rates of change.

to incoming data – which have come to be mostly ignored aside from the employment report – and generally the need for a bit more risk premium in Fed pricing and yields."

See Morgan Stanley, Ted Wieseman's 'Treasury Market Commentary', December 14, 2012.

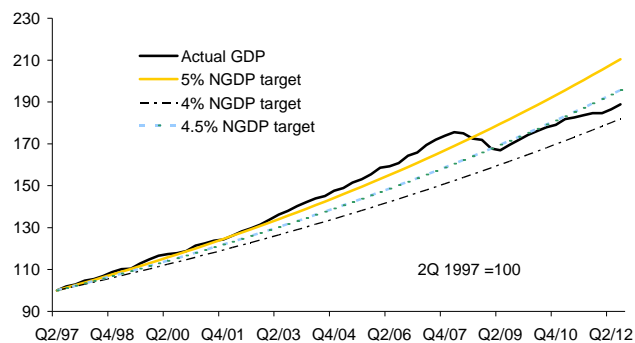
⁴ This is made crystal clear both in his February paper in the section on 'Would Targeting the Nominal GDP Level be Superior?' and in his December speech where the relative passage is reproduced in the appendix, including the relevant footnotes.

Difficult to decide on the target: In the case of a *price* level target the assumption that you want the level of prices to rise at 2% p.a. is relatively uncontroversial. With a nominal GDP level target the choice of what real rate of growth to build into the calculation is *not* straightforward. If, and only if, such a target was explicitly treated as a temporary feature, one could go as high as 3% for real growth (with some allowance for bringing spare capacity back into use). Any figure below 1.5% would seem somewhat faint-hearted and anything above 3%, frankly unachievable. *So one could justify a 'desired' nominal GDP level path rising anywhere between 3.5% to 5%.*

But even setting a reasonable target could mean an immediate sharp change of policy... By juggling with the start date, and the desired growth path, one could leave the MPC with an immediate requirement that could vary anywhere from a huge expansion to a severe retraction. For example, in Exhibit 10, we show what the implicit current gap is between the desired path for nominal GDP and the actual path for nominal GDP if history were deemed to have started in 1997 Q2, and growth paths of, say, 5% and 4% were also deemed to have been appropriate, as an upper and lower example, respectively. With the 5% path, the MPC would, assuming we aim to hit the target two years ahead, currently have to expand nominal GDP by around 10% p.a. With the 4% path, the MPC would have to keep nominal GDP growth down to around 2.3% p.a. (these estimates are based from the end of Q3 2012 to end 2014).

Exhibit 10

Nominal GDP under different policy scenarios



Source: ONS, Morgan Stanley Research

Perhaps for this purpose, history will be deemed to start in July 2013 when under new management? Even if bygones remain bygones until that point, a nominal GDP level target would be much more demanding than a nominal GDP growth target.

A very 'demanding' target: Assume that a 5% nominal GDP level target was set now, but that the current OBR nominal GDP growth forecast was actually achieved⁵ over the next two years. Then the shortfall from target would by then be of the order of almost 4%. With a nominal GDP level target, that shortfall has to be clawed back. Assuming that this is to be done over the next two-year horizon, then that implies a nominal GDP growth target of about 7% for each of those two years.

Overestimation of sustainable growth could force the MPC to aim for sharply higher inflation: Effectively, any overestimation of the sustainable real rate of growth, and such overestimation is all too likely, could force an MPC, subject to a levels nominal GDP target, soon to have to aim for a significantly higher rate of inflation. Is that really what is now wanted? Bring back the stagflation of the 1970s; all is forgiven?

Because of all these complications we also think that (even a temporary) nominal GDP level target would suffer credibility problems.

As with a nominal GDP growth target, there would also be problems of understanding: We return to the point that while the concept of CPI is relatively easy to explain and understand, the concept of targeting a nominal GDP level, with its important nominal GDP deflator component and where it is prone to back revisions, is not.

⁵ While this calculation ignores the greater expansionary stimulus that a change of target might induce, equally the OBR forecast assumes away certain potential downside risks to growth.

Exhibit 11

Summary of the main benefits and drawbacks of alternative targets for monetary policy

Target	Main benefits	Main drawbacks
Price level	1) It is a potentially more powerful tool in the sense that if the actual level of prices is below (above) the desired level of prices, a price level target is more (less) expansionary than an inflation target. 2) It provides more certainty about keeping to the inflation path <i>as initially advertised</i> . 3) <i>If all agents are forward looking and the target is credible, it might remove the need for aggressive policy action.</i>	1) People form expectations in a backward looking way. That might mean undesirably aggressive central bank action would be required. 2) It complicates the response to supply shocks (e.g. a sharp rise in the oil price would be much harder to 'look through' than it would under an inflation target). 3) The policy prescription depends on where you start 'history'. 4) At the present juncture it would probably be consistent with an immediate (unwelcome) policy <i>tightening</i> .
Nominal GDP growth	Potentially extra-expansionary in current conditions by effectively augmenting an inflation target with a target for real growth and where we are currently below a long-run sustainable rate of growth.	1) More inflation uncertainty. 2) Monetary policy cannot affect medium/long term real GDP growth. 3) No one knows where the long-run sustainable rate of real GDP growth is - the target may not be set appropriately and may lack credibility. 4) Major operational shortcomings: You are targeting a variable that is prone to revisions and that is available only with a significant lag. In other words, at a given moment in time you don't know where the variable you are trying to target actually is (or was). 5) The GDP deflator concept is hard to understand. 6) It involves an even greater confusion of fiscal and monetary policy roles than at present.
Nominal GDP level	It is a potentially more powerful tool than nominal GDP growth targeting where history matters and where the UK economy has been growing at a slower rate than average for some time.	The same as for nominal GDP growth targeting PLUS 1) Additional problems setting a target where, by juggling with the start date and with different reasonable alternatives for the target, the MPC could be left with a requirement running from a massive immediate stimulus to a sharp immediate policy tightening. 2) A major risk of stagflation where the sustainable growth rate may easily be overestimated at present (i.e. policy kept too loose for too long).

Source: Morgan Stanley Research

How likely is a change in monetary policy target?

We think that the case for nominal GDP level targeting is weak and the practicalities too large to think that this will be adopted as early as 2013 (if ever). We can see a case for a switch to a temporary nominal GDP growth target *in the event that the economy fails to show any signs of improvement by the middle of the year*. However, this is not the proposal that Mr. Carney has focused on.

According to Chancellor Osborne (where it is ultimately the Government in the UK that would make any changes to the Bank of England's target): "If you were to move away from [the inflation target] you'd want to be satisfied you were getting very big rewards." We do not think that condition is met for nominal GDP level targeting. Further, he added. "Whatever regime you have, you have to ask what is it you want the Monetary Policy Committee to do that you think the inflation targeting regime we currently have prevents them from doing..." It is worth noting here that the Bank of England has been very aggressive in its monetary policy easing. There is a case for saying that more powerful instruments could be used (see later), but that is a slightly different point. Chancellor Osborne importantly also said that "It would be a good thing for academia to lead the debate". Academic opinion has certainly not coalesced around nominal GDP targeting (either in levels or growth form)

as the way forward. When the Bank of England adopted inflation targeting, academic opinion was strongly in favour of this being the optimal form of targetry for central banks.

Guidance, Communication and Commitment

Why central bankers care about interest rate

expectations: Central Bank officials have mostly taken to heart Woodford's comment that setting the official overnight rate is comparatively unimportant in itself; what matters instead is the whole yield curve of interest rates, and that depends on expectations. It can be argued, in the British case at least, that this downplays the importance of the official short-term rate far too much. In the UK in recent decades, most mortgages, and many other borrowing rates, are tied quasi-automatically to the official short-term rate.

Be that as it may, and perhaps even more so once interest rates have hit the zero-lower-bound, Central Bankers have become even more concerned about trying to shape expectations.

And Mark Carney appears relatively enthusiastic on the issue of policy guidance: Mark Carney gave his latest speech the title, 'Guidance'. The Bank of Canada was the first major central bank to make a (soft) pre-commitment to keep

rates low for a specific period during the financial crisis. From the April 2009 Monetary Policy Report: “Conditional on the outlook for inflation, the target overnight rate can be expected to remain at its current level until the end of the second quarter of 2010 in order to achieve the inflation target”. So, what kind of revised guidance might we possibly expect?

- **Option 1. Publishing an officially expected future path for interest rates**

One trend in recent years has been to base the inflation forecast on a path for future official rates chosen by the Central Bank (MPC) itself, rather than a path based on the market’s presumed path, as derived from the yield curve, or some assumed path (e.g. that official rates will remain constant in future). The Reserve Bank of New Zealand, a serial innovator, started this practice and has been followed more recently by the Norges Bank and the Riksbank.

This is always conditional... This expected path is conditional on future economic events, not an unconditional commitment. Moreover, a current MPC cannot bind a future MPC, whose personnel and viewpoints can change. So, even if the economy did develop as initially forecast, there can be no guarantee that the initial path would be kept.

... but provides a clear statement of expectations:

Nevertheless, the publication of such a forecast does provide a clear statement of the MPC’s own expectations, and a deviation from past (conditional) forecasts would seem to imply a need for explanation, which may provide a bias towards sticking to the initial path. This practice would, therefore, seem better suited to having an influence on the public’s own expectations, than using market forecasts or an arbitrarily assumed path.⁶

There are important implications though for the role of Central Bank staff: An implication of basing the forecast on the Central Bank’s own expectations is that the level, and future path, of official interest rates effectively has to be hammered out in the course of the forecasting process itself, rather than at the final MPC meeting. This has the effect of involving the Bank forecasting staff much more closely in policy making, which has advantages (in greater job satisfaction) and disadvantages (a greater chance of leaks). It would also reduce the impact of external members of an MPC, such as the

⁶ It also has the (technical) advantage of making the forecast internally consistent; thus, had market agents known how the Central Bank (MPC) was going to forecast the future, they might not have set the yield curve in the way that they did. A few theorists consider this important; it is of doubtful practical relevance.

Central Bank Governors on the Governing Council of the ECB, the Federal Reserve Bank Presidents on the FOMC, or the externals on the UK MPC.

So, basing the forecast on the Central Bank’s own forecasts for its expected path of future interest rates would seem best suited to those countries where the decision is made either by the Governor alone, or by a small, and one would hope cohesive, group of internal officials (as appears to be the case in Canada). It is far less well suited to a decision-making process based on a large committee, especially where some members of that committee have a limited chance (in some cases none) to participate in the prior detailed forecasting exercise (as appears to be partially the case for the ECB). In the latter case, a (staff) forecast based on some assumed future path for interest rates would work much better.

However, Carney does not favour this route: Canada fits into the category of countries where the interest rate setting procedure would seem to favour the use of an officially expected future path. Nevertheless, Carney did not suggest pursuing this (theoretically fashionable) approach; his reason for not doing so was purely pragmatic, that he thought that the evidence indicated that it did not work well: “In practice, however, it does not appear that markets take systematic account of the guidance offered by a published path beyond the very near term. Overall research has not generally found that publishing a path leads to better outcomes” (December 2012 – full extract in appendix).

Some work that one of us did⁷ provides empirical support for Carney’s scepticism about the practical benefits of basing forecasts on an explicit expected future path of official rates.

- **Option 2. Conditional interest rate commitments**

But there may be communication advantages to conditional interest rate commitments: It is not immediately clear how guidance can be made much more effective and clearer than is already implicit in the MPC’s inflation forecast. Thus, if the inflation fan chart shows that inflation is significantly above (below) (or nearly equal to) the 2% inflation target at the two-year horizon, the clear implication is that the MPC believes that the implied path of forward interest rates, derived from market yield curves, is too low (too high) (just about right).

⁷ C. Goodhart, (2009), ‘The Interest Rate Conditioning Assumption’, *International Journal of Central Banking* 5 (2), June, 85-108, and Goodhart, C. and J.-C. Rochet, (2011), *Evaluation of the Riksbank’s monetary policy and work with financial stability 2005-10*, Reports from the Rikstag 2010/11: RFRS (The Committee on Finance), especially Section 4.

Virtually all commentators can, therefore, fairly easily deduce the MPC's own expectations (at least in broad brush terms). The most recent UK MPC inflation forecasts shows that the single most likely outcome for inflation is that it is close to target in three years time (slightly below), assuming that the BoE is broadly right on the economy. That is, based on a market interest rate profile that does not show a rate rise until 2H 2015. Effectively then, the *Inflation Report* is telling you that "conditional on the inflation outlook the UK's MPC would expect to keep interest rates unchanged until 2015".

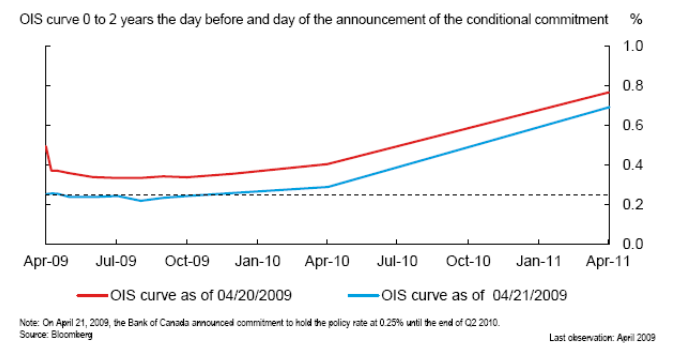
But this does remain an implicit deduction. Perhaps, as Carney suggests, there is some advantage to be gained, on occasions, from being more explicit about such a 'conditional commitment': "Our conditional commitment worked because it was exceptional, explicit and anchored in a highly credible inflation-targeting framework... And it worked because it reached beyond central bank watchers to make a clear, simple statement directly to Canadians." (full extract in the appendix).

So we expect to see conditional commitments introduced:

We do now expect that, from time to time, under a Mark Carney governorship, that implications of the fan chart will be spelt out in the shape of more explicit future guidance on interest rates.

But we don't think it will have all that much effect: But in our view the effect is likely to be of second-order importance. Thus the chart (Exhibit 12) that Carney presents as evidence of the success of his conditional commitment in April 2009, suggests that the immediate effect of that was to reduce short-term market interest rates by about 10-15 bps. Worthwhile, but hardly game-changing in our view, and relatively minor compared to the apparent impact on yields of QE1 in the UK.

Exhibit 12
Bank of Canada yield curve expectations declined after April 2009 conditional commitment was announced



Note: On April 21, 2009, the Bank of Canada announced commitment to hold the policy rate at 0.25% until the end of Q2 2010.
 Source: Bloomberg
 Last observation: April 2009
 Source: Bank of Canada (speech by Mark Carney December 2012)

We agree with some of the points on this made by current Bank of England Governor King at his recent appearance at the Economic Club of New York. Governor King was asked whether there would be any gain in following the approach in Canada or in the US of specifying how long interest rates would remain low. He noted that "if you look at market interest rates, there's actually rather little difference in terms of what markets expect the yield curve to be looking ahead between those central banks that are willing to talk more openly about what they will do and those banks who don't talk about the future but talk about how they would respond to events as they unfold". He also noted in the UK the broader importance of a clear set of objectives, "I don't think it's actually easy for us to pretend how the committee will behave in two or three year's time. What we should be doing is to say, look, let's be honest about it, no one knows what the future holds. What we have to do is to give the impression that we have a very clear set of objectives. We have instruments to meet those objectives. What we will actually choose to do at any particular date in the future will depend on the conditions at the time" (full extract in the appendix).

Where are the instruments?

The main problem is not that the monetary authorities have been held back from expansionary policies by restrictive mandates (though the ECB might be regarded as a partial exception to this dictum), nor that poor communication strategies have failed to explain their resolve to the public. It is rather that their extraordinary and unconventional expansionary measures have failed to work through to broader financial aggregates, and thence to the economy, to the extent initially hoped.

In particular, the determined upwards leveraging of Central Banks' balance sheets has been met and offset by a massive deleveraging of private sector balance sheets, in particular amongst banks. In some large part, such bank deleveraging has been another objective of policy. Banks had become much too highly levered by 2007/8, with a ratio of loss-absorbing equity (and bail-inable bonds) to debt that was far too low. But requiring banks to raise their capital ratios sharply, at a time when the conditions and incentives for raising new equity were bad, is a recipe for a cut-back in credit expansion. This has occurred.

If the idea is for Carney to make monetary policy in the UK more effective in generating growth, then he will have to worry more about refurbishing the instruments at hand for that purpose, rather than seeking to change the mandate or the details of the communication strategy. This note, however, like most other recent discussion, and Carney's recent speeches,

focuses on strategy rather than instruments, so we will only discuss briefly four possible ideas for making the instruments of monetary policy more effective. We will revert to this issue again in future months.

If the idea is for Carney to make monetary policy in the UK more effective in generating growth, then he will have to worry more about refurbishing the instruments at hand for that purpose, rather than seeking to change the mandate or the details of the communication strategy

1. FLS needs to be extended and improved: First, a major constraint on bank credit expansion is a shortage of equity capital. How can one reconcile the desire for higher CARs with an encouragement for more credit expansion? The Funding for Lending Scheme (FLS) now incorporates a mechanism whereby the expansion of more *new* lending by a bank entails a much lower required CAR than on *old* loans. This innovation needs to be further explored and extended, and its shortcomings ironed out (for Morgan Stanley's views on this innovation, see [UK Economics and Banks: Funding for Lending: Good initiative, tough backdrop](#)). Morgan Stanley has highlighted the broad regulatory backdrop of banks as being a hindrance to FLS success (specifically, a backdrop where regulators favour more capital build and where banks are subject to what seems to be a permanent revolution in banking rules).

2. Alter the governance and remuneration structure of banks (easier said than done): Second, the remuneration and incentive structures for bank shareholders and managers alike causes them to focus on Return on Equity. Such a focus on RoE then makes them unwilling to dilute the equity base of their own bank and ramp up debt leverage. A radical idea would be to attempt to alter the governance and remuneration structure of banks so as to shift the focus to a (risk-adjusted) return on total assets (RoA). That would be difficult to do.

3. Cut interest rates, or at least lower the remuneration on a portion of reserves held at the central bank: Third, the level of official interest rates in the UK, that is treated as synonymous with the zero-lower bound, at 50 bps is higher than that maintained by the FOMC, ECB or BoJ. It is not clear to us that this difference has a strongly valid reason. Interest

rates could still be cut further, even in some cases made marginally negative. Concern about the implications for bank profitability, in so far as it is justified, could be met by a rearrangement of the structure of interest rates, e.g. lowering marginal relative to average rates, and by adjustments to the existing pattern of taxes on banks (for more on this please see [UK Economics: If QE Has Lost its Bite, What Else Could the BoE Do?](#)).

4. Buy assets other than gilts: Fourth, the choice of assets to be purchased in the process of Central Bank balance sheet expansion should be reconsidered. The purchase of gilts is not necessarily getting the biggest expansionary impulse. This does, of course, raise other issues, e.g. of the Central Bank's constitutional role; but the proposal to change the monetary target to one for nominal GDP levels would do far more to confuse the relative roles of fiscal and monetary policies than a minor change to the asset portfolio of the Bank of England. Mark Carney seems likely to be more open to the idea than was Governor King. For example, in his December 2012 speech credit easing was mentioned in the same breath as interest rate guidance and QE as policies when the zero interest rate band is reached: "When conventional monetary policy has been exhausted at the zero lower bound... Extraordinary forward guidance is one unconventional policy tool, along with quantitative easing *and credit easing*" (our italics).

What is likely to happen? Were the economy to significantly underperform Morgan Stanley's expectations in 2013, under a Mark Carney governorship we would expect the purchase of assets other than gilts. At present, with corporate bond yields at relatively low levels (alongside bank funding costs) it is questionable what the merits in doing this would be. However, should the economy deteriorate rather than mend somewhat over the next year and these bond yields and funding costs rise, we think non-gilt asset purchases would be rather likely under the new governor. We would put a high probability on lower reserves remuneration and we would put a significantly higher probability on an outright interest rate cut than we would have done under Governor King.

Conclusion

If we thought that we had learnt anything from the travails of the 1960s and 1970s, it was that monetary expansion in the medium and longer run does *not* bring faster, sustainable growth. If anything, the opposite is true; faster inflation, at any rate beyond some threshold, deters growth. The long-run Phillips curve is vertical. It was on this analytical basis that the case both for Central Bank independence and a specific inflation target was made.

In the shorter run, however, there is a trade-off between output growth and inflation; the Phillips curve (is supposed to) slope downwards. We are in rather a nasty short-run policy pickle, with fiscal policy constrained and growth prospects poor. So, the incentive is to put more weight on even more expansionary monetary policy.

But we should not do so in a way that endangers the longer-term framework, whose foundations remain as true as

ever. If the aim is for a short-term burst of ever-greater monetary expansion, then *make it temporary with a clear exit strategy*. What Bernanke and the FOMC have done has merit, and we could think what a UK equivalent might be (a temporary nominal GDP growth target). On the other hand, permanently junking the inflation target for a nominal GDP target, especially one in levels, would be a very bad idea, in our view.

UK Interest Rate Strategy: Change under Carney

Anthony O'Brien

Yield Curve Reaction

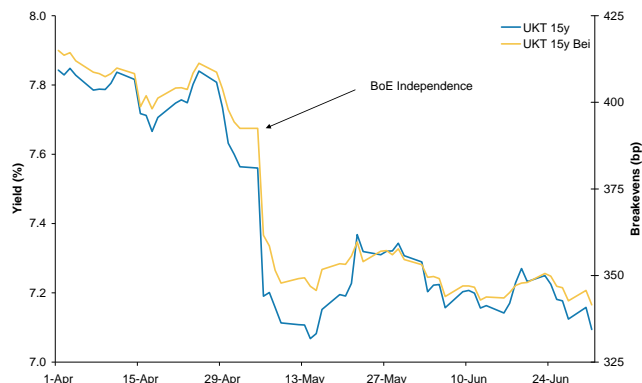
How Did We End Up Targeting Inflation? The events of Black Wednesday (16 September 1992), when sterling exited the European Exchange Rate Mechanism, left the Conservative government of the day's credibility in tatters and in urgent need of a new economic framework. As a result, in October the Chancellor, Norman Lamont, announced he was setting an inflation target for RPIX between 1 and 4% for the 1992 – 1997 Parliament, which was subsequently revised to be 2.5% or less, later in the term. Meetings between the Chancellor and the BoE Governor were held monthly to discuss interest rate policy, but it was still ultimately the Chancellor who took the decisions on the level of interest rates. And so was born the 'Ken and Eddie show' after the then Chancellor Kenneth Clark and BoE Governor Eddie George. The BoE was asked to publish its own economic appraisals in a quarterly Inflation Report and the minutes of the monthly meeting began being published in 2004.

Full Independence in May 1997: However, in reality it was more 'Ken' than 'Eddie', with the Chancellor reportedly occasionally overriding the Governor's and indeed his own Treasury's opinion on monetary policy. Hence, the BoE had to wait until the election of a new Labour government in 1997 for full independence (6 May 1997), when the newly formed MPC would meet monthly to decide interest rate policy. Originally, the Committee targeted RPIX inflation at 2.5%, but in Dec 2003, Chancellor Brown announced a new inflation target for CPI inflation at 2%.

Independence Day – Nominal Yields and Breakevens Fell 40bp: Looking at the price behaviour in the 1990s, we note, unsurprisingly, that investors prefer an independent central bank to one where the government has the final say on monetary policy and hence is all too easily influenced by the electoral cycle. This is most obviously observed in the 40bp rally in 15y nominal yields and breakevens when the full independence was announced in May 1997 (see Exhibit 13).

Exhibit 13

Nominal Yields and Breakevens Fell 40bp When the BoE Gained Full Independence

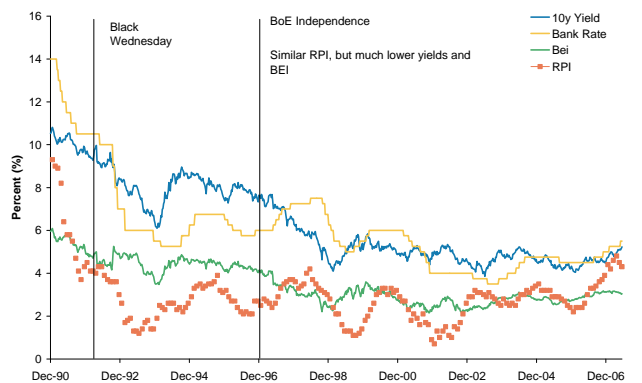


Source: Morgan Stanley Research

However, what is more striking is the 'credibility' benefit gained from independence in the form of much lower breakevens. Despite actual RPI inflation actually being slightly lower in the periods between Sept 1992 and May 1997 (the Ken and Eddie show) in comparison to the first 10 years of independence from May 1997 (2.5% vs 2.6%), breakevens in the second period were approximately 150bp narrower, with substantial term premia being removed from the curve.

Exhibit 14

Credibility Means Lower Yields and BEI Even Though RPI Has Not Reduced



Source: Morgan Stanley Research

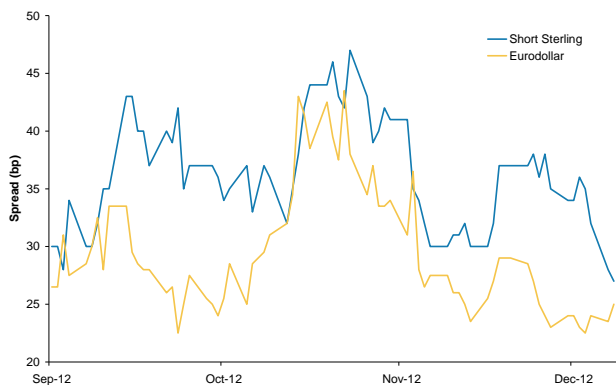
Hence, we see that any change in the BoE target can have a substantial impact on the level of yields and breakevens.

Changes to the Yield Curve under Different Monetary Policy Regimes:

Conditional Interest Rate Commitment: As we said earlier, it is not immediately clear how guidance can be made much more effective and clearer than is already implicit in the MPC's inflation forecast, although explicitly stating such a 'conditional commitment' may flatten the curve a touch. If we look at the Eurodollar contracts in 4Q12, when the FOMC announced that low fed fund rates would likely be warranted at least through mid-2015, we find the spread between Mar 13 and June 15 contracts (covering the period in which the Fed was giving guidance) was on average only 5bp flatter than the Short Sterling contracts (see Exhibit 15). Therefore, it is questionable how effective the extra Fed guidance was over and above what investors were already expecting.

Exhibit 15

Little Advantage from Increased Guidance: Mar 13 – June 15 Eurodollar vs Short Sterling Spreads



Source: Morgan Stanley Research

One could argue that Short Sterling should be flatter than the Eurodollar curve, given the MPC have more room to cut rates in the future, but this should only be a matter of a handful of basis points. Hence, any additional guidance by Carney is likely to only flatten the front end by about 5bp or so, although the announcement of a 25bp Bank Rate cut clearly would lower outright levels.

Nominal Income Growth Targeting

Changing Target Should be Judged on Its Ability to Flatten the Curve:

Lately, central banks have been finding 'alternative' ways of inducing flattening in the front end and reducing term premia further out the curve. The Fed has done this via interest rate guidance and QE, the ECB via the announcement of the OMT programme and the MPC via the

APF buying of gilts. One merit in changing current rhetoric or policy objectives should be seen in their ability to furthering this objective, rather than because inflation targeting is outmoded.

Adverse Market Reaction to Fed's Change in Rhetoric:

One should note the recent market reaction to the Fed's tying of interest rate policy to the level of unemployment and inflation at the last FOMC meeting. As far as the Fed were concerned, this new 6.5% unemployment rate and 2.5% inflation rate guidance should be seen as little different from the prior guidance that the fed funds rate would remain low until at least mid-2015. Indeed, the updated Fed economic projections showed core CPE inflation below 2% through 2015 and the central tendency unemployment rate forecast at a median 7.05% at the end of 2014 and 6.3% at the end of 2015. However, by adding the extra unemployment rate ('conditional') variable, the curve actually steepened as investors factored in a higher probability of an earlier tightening and that this economically based guidance could increase market reaction to incoming data and hence increase term premia. The Mar 13 and June 15 Eurodollar spread has widened over 15bp since the Dec FOMC meeting, and UST 2s10s curve is at its highest level since September. One can only conclude that this was probably not the Fed's objective.

A Shift to Nominal GDP Growth Targeting Would Be

Worse: Unfortunately, we fear a shift from inflation targeting to a nominal GDP growth target will meet the same reaction but is likely to be more severe. The current mandate gave the MPC room to not raise Bank Rate at the time of 5% CPI inflation at the end of 2011 and even increase QE. Investors understood the MPC's reaction function, and yields fell from August 2011 despite inflation rising. Any change in the MPC's mandate would inject new uncertainty into investors' perception of the MPC's reaction function, which can only lead to a steeper curve.

Credibility Must be Re-won: Credibility would have to be won all over again, possibly meaning the MPC will have to be more reactive to current nominal GDP growth rather than focus solely on the two year time horizon. This could possibly mean that rates may rise sooner than is currently expected targeting inflation. Under the existing inflation targeting regime, current inflation is a concern to the MPC, but more in its ability to influence 'second round' effects such as wages. Hence, market volatility around inflation and GDP releases is likely to increase under a regime of nominal GDP growth targeting, increasing term premia.

Ronaldo Replaces Maradona: The ability to predict the MPC's reaction function is very important and can dampen the

magnitude and lower the number of times the central bank has to change Bank Rate. Governor King called this the “Maradona theory of interest rates.” He was referring to the 1986 world cup quarter final when Maradona ran 60 yards, beating five English players before placing the ball in the net. The remarkable thing was that he was able to achieve this by running in a straight line as the English defenders reacted to what they expected Maradona to do, i.e., dance around them. King opined that monetary policy can work in the same way, with central banks being able to influence the path of the economy without making large moves in official interest rates. This is done by financial markets pricing in tightening/loosening of monetary policy because this is what they believe the central bank will do. At times, he noted that this is sufficient to stabilise private spending while official interest rates in fact moved very little.

However, under any new regime, we would expect either investors to discount too much in the way of monetary policy response, as they simply do not know the likely central bank response, or price in too little, prompting the central bank to actually change official rates. This will increase volatility and hence term premia further out the curve. Investors can only learn the new reaction function from watching what the MPC does and reacting. Hence, the sublime Maradona is replaced by the Ronaldo theory of interest rates, i.e., the central bank may try a trick or two but ultimately has to use its strength and speed to achieve its goal.

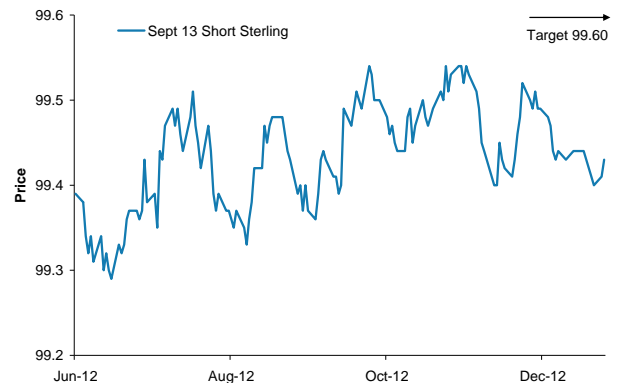
Trade recommendations:

In reality we have little knowledge of Carney’s thoughts on the UK economy and his potential remedies, but from his speech on “Guidance,” he is clearly open-minded about using alternative, more aggressive monetary policy if the situation requires it. The current MPC pursuit of unconventional policies really only stretches as far as buying gilts; however, with a Carney-led MPC, we could see Bank Rate cuts, purchases of corporate bonds or even abandonment of inflation targeting in pursuit of nominal GDP targeting.

Long Sept 13 Short Sterling: There is a not-insignificant chance that Carney would also drive for a cut in Bank Rate. The Bank of Canada lowered its key policy rate to 25bp in the height of the financial crisis, and although you cannot compare the Canadian banking system to the UK’s, it at least suggests the option is on the table. Our economists are skeptical as to how much the FLS will achieve, so in an attempt to increase its usage, why not make it cheaper?

Exhibit 16

Can’t Rule Out a Carney Cut



Source: Morgan Stanley Research

Trade Recommendation: Long Sept 13 Short Sterling

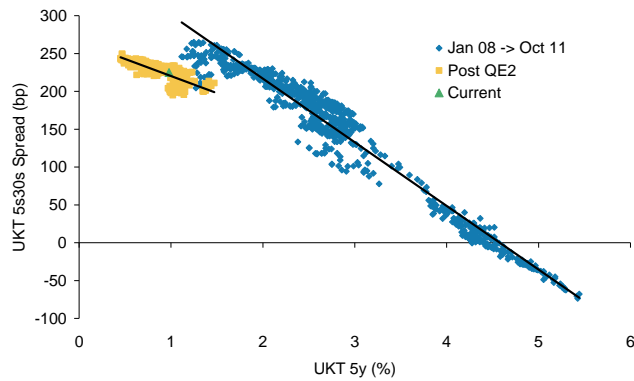
We believe the risk/reward of an outright long position is better than some sort of Short Sterling flattener in anticipation of the introduction of some sort of Bank Rate guidance. This is because the curve is already flat and the position is more volatile than the outright long position in our opinion.

Curve Steepeners: Whether or not Carney actually favours replacing inflation targeting for nominal GDP targeting, his more ‘open-minded’ approach to monetary policy means the curve has to price in some possibility of this happening. As we have said above, this would steepen the curve and widen breakevens by up to 20bp. We currently favour UKT 20s50s steepeners, but we would consider shifting this to UKT 5s30s closer to Carney’s appointment as we think this part of the curve has the capacity to steepen the most.

UKT 5y should remain relatively well anchored as a Carney-led MPC offers some sort of interest rate guidance maintaining low Bank Rates to at least mid-2015. The longer end, as we have said, is the most vulnerable to any change of monetary targeting, hence we favour being short UKT 30y. Finally, we note that UKT 5s30s flattened after the MPC announced the start of QE2. Given the market does not expect QE to be extended soon, perhaps the curve should return to its pre-QE2 relationship, i.e., about 50bp steeper (see Exhibit 17).

Exhibit 17

Expect UKT 5s30s Curve to Return to the Pre-QE2 Relationship if Inflation Targeting is Changed



Source: Morgan Stanley Research

The risk to the trade is the yield curve flattens as yields rise, as has been the case since the new year. To hedge against the directionality of the position (the curve bull-steepens and bear-flattens), we recommend reducing the long UKT 5y leg to 55% of the UKT 30y duration.

Trade Recommendation: UKT 5s30s steepener, underweight UKT 5y to hedge out the directionality of the position

Buy 55% risk UKT 1 17 vs selling 100% risk UKT 3Q 42

Entry = 270bp, Target 325bp, stop = 242bp

Appendix

Mark Carney on price level targeting: “As part of the work leading to the renewal of our inflation control agreement, the Bank of Canada analysed the benefits of price-level targeting (PLT) which, like nominal GDP targeting, is a way to introduce history dependence. Our research shows that, apart from lower bound episodes, the gains from better exploiting the expectations channel are likely to be modest.

Based on simulations using the Bank’s main projection model, the benefits of this greater stabilization under PLT are comparable to a permanent quarter-point reduction in the standard deviation of CPI inflation, a significantly smaller improvement than that realized upon the introduction of inflation targeting in Canada in the 1990s. Much of this benefit arises following shocks that create an explicit trade-off between output and inflation stabilization, such as supply shocks, since credible and well-understood PLT improves this trade-off.

To reap even these modest gains, expectations would have to adjust the way theory says they should. That requires the change in policy regime to be both credible and well understood. The public would need to be fully conversant with the implications of the regime and trust policy-makers to live up to their commitment. These conditions may not be met...

...Our research shows that the stabilization benefits of PLT appear to diminish quickly as the fraction of the population that behaves in a manner consistent with PLT falls, and are eliminated when this fraction reaches 50 per cent. We have also investigated more directly – in a laboratory-type setting – how people would adapt to a PLT regime. Our results suggest that *while people do change their behaviour under PLT, the changes reflect an imperfect understanding of the implications of the regime.*” (Speech, 24th February 2012. Our italics and underlining)

Mark Carney on the Fed’s approach: “Obviously the optimal policy path will differ for central banks, depending on their circumstances and mandates. For example, the Federal Reserve indicated at its September meeting that its policy rate could be expected to remain at exceptionally low levels until mid-2015, and provided additional certainty with respect to its reaction function by linking future unconventional monetary policy to substantial improvements in the outlook for the U.S. labour market. Further, it indicated that it will leave highly accommodative policy in place “for a considerable time after the economic recovery strengthens.” The Fed also expanded its large-scale asset purchases, dubbed “QE3,” consistent with

this enhanced forward guidance.” (Speech, 11th December 2003).

Mark Carney on nominal GDP targeting: “If yet further stimulus were required, the policy framework itself would likely have to be changed.[19] For example, adopting a nominal GDP (NGDP)-level target could in many respects be more powerful than employing thresholds under flexible inflation targeting. This is because doing so would add “history dependence” to monetary policy. Under NGDP targeting, bygones are not bygones and the central bank is compelled to make up for past misses on the path of nominal GDP...

...Bank of Canada research shows that, under normal circumstances, the gains from better exploiting the expectations channel through a history-dependent framework are likely to be modest, and may be further diluted if key conditions are not met. Mostly notably, people must generally understand what the central bank is doing – an admittedly high bar.[20]

However, when policy rates are stuck at the zero lower bound, there could be a more favourable case for NGDP targeting. The exceptional nature of the situation, and the magnitude of the gaps involved, could make such a policy more credible and easier to understand.[21]

Of course, the benefits of such a regime change would have to be weighed carefully against the effectiveness of other unconventional monetary policy measures under the proven, flexible inflation-targeting framework.”

Footnotes:

[19] “In most jurisdictions, including Canada, a change in the policy framework would require the approval of the political authority. In some others, it would require a change in the constitution.

[20] In particular, for the benefits of a history-dependent monetary policy framework such as NGDP targeting to be realised, people must be forward-looking, fully conversant with the implications of the regime and trust policy-makers to live up to their commitment. As Bank research has shown, if these conditions do not fully hold, these approaches could in fact prove destabilising to the economy and damaging to the central bank’s credibility.

[21] Depending on the depth and duration of the ZLB episode, our calculations suggest that the adoption of a (temporary) price-level target, if well understood and credible, could eliminate more than half of the losses associated with the impossibility of providing additional monetary stimulus through a lower policy rate. See R. Amano and M. Shukayev, “Monetary Policy and the Zero Bound on Nominal Interest Rates,” Bank of Canada Review, Summer 2010 and C.I. Evans,

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"Monetary Policy in a Low-Inflation Environment: Developing a State-Contingent Price-Level Target," remarks delivered before the Federal Reserve Bank of Boston's 55th Economic Conference, Boston MA, October 16, 2010." (Speech, 11th December 2003).

Mark Carney on publishing an expected path for interest rates: "Some other central banks directly disclose their policy interest rate forecast. "Putting it all out there" is, on its face, an appealing approach. It avoids the challenge of trying to perfectly calibrate verbal guidance. It also makes it easier to illustrate how monetary policy interacts with the economy.[10]

In practice, however, it does not appear that markets take systematic account of the guidance offered by a published path beyond the very near term. Overall research has not generally found that publishing a path leads to better outcomes.[11]"

Footnotes:

[10] "Publishing the policy rate forecast path corresponding to the central bank's forecasts of growth and inflation helps to communicate both the central bank's prevailing views on the economy and its policy reaction function, which in turn should help policy expectations evolve efficiently as new information arrives.

[11] See, for example, M. Andersson and B. Hofmann, "Gauging the Effectiveness of Quantitative Forward Guidance Evidence from Three Inflation Targeters," European Central Bank, Working Paper No. 1098, October 2009; C. E. Walsh, "Optimal Economic Transparency," International Journal of Central Banking 3 no. 1 (March 2007): 5-36; and G.-A. Detmers and D. Nautz, "The Information Content of Central Bank Interest Rate Projections: Evidence from New Zealand," Reserve Bank of New Zealand Discussion Paper No. 2012/03." (Speech, 11th December 2003).

Mark Carney on conditional interest rate commitments: "While the Bank believes it appropriate to be sparing in forward policy guidance under ordinary circumstances, the calculus changes under extraordinary ones. When conventional monetary policy has been exhausted at the zero lower bound (ZLB) on nominal interest rates, the additional stimulus that is likely to be called for is impossible to achieve using the conventional interest rate tool. Extraordinary forward guidance is one unconventional policy tool, along with quantitative easing and credit easing.

The Bank of Canada used extraordinary forward guidance in April 2009, when the policy interest rate was at its lowest possible level and additional stimulus was needed. At the time, we committed to holding the policy rate at that level through the second quarter of 2010, conditional on the outlook for inflation. In effect, we substituted duration and greater certainty

regarding the interest rate outlook for the negative interest rate setting that would have been warranted but could not be achieved. The Bank's conditional commitment succeeded in changing market expectations of the future path of interest rates, providing the desired stimulus and thereby underpinning a rebound in growth and inflation in Canada. When the inflation outlook - the explicit condition - changed, the path of interest rates changed accordingly.

Our conditional commitment worked because it was exceptional, explicit and anchored in a highly credible inflation-targeting framework. It also worked because we "put our money where our mouths were" by extending the almost \$30 billion exceptional liquidity programs we had in place for the duration of the conditional commitment. And it worked because it reached beyond central bank watchers to make a clear, simple statement directly to Canadians." (Speech, 11th December 2003).

Governor King on interest rate commitments: "Well, we don't believe in the Bank of England that we have a crystal ball which enables us to foretell the future. So we simply do not know what we will be deciding six months, twelve months, two years from now. What is important I think is to have sufficient transparency about how we will react to events as they unfold. So we certainly don't want to leave vast uncertainty about our future actions. But instead of saying interest rates will be low at a certain point in time, what we would rather say is we'd rather talk about our actions in a way that people are confident that they understand how we might react to events as they unfold. And I think the proof of the success of that is that if you look at market interest rates, there's actually rather little difference in terms of what markets expect the yield curve to be looking ahead between those central banks that are willing to talk more openly about what they will do and those banks who don't talk about the future but talk about how they would respond to events as they unfold. And of course the other reason for doing that is our committee structure in the Bank of England, the Monetary Policy Committee comprises nine individuals each of whom is individually accountable for their actions, appears before parliament to explain their actions, and has one vote. And I only have one vote. And I have been in a minority on three or four occasions since I became governor. So I don't think it's actually easy for us to pretend how the committee will behave in two or three year's time. What we should be doing is to say, look, let's be honest about it, no one knows what the future holds. What we have to do is to give the impression that we have a very clear set of objectives. We have instruments to meet those objectives. What we will actually choose to do at any particular date in the future will depend on the conditions at the time." (Speech (Q&A session), 10th December 2012).

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