



BANK OF ENGLAND

Speech

Adjusting to Low Inflation – Issues for Policy

Speech given by

Kate Barker, Member of the Monetary Policy Committee, Bank of England

At the Manchester Statistical Society Meeting, Manchester

18 February 2003

I would like to thank in particular Rebecca Driver and Marilyne Tolle for helpful discussions and assistance on this paper. I am also grateful for advice from Luca Benati, Jenni Greenslade, Stephen Millard and Jonathan Thomas and for assistance with data from Rhys Cockerell and Stuart Lee. Marian Bell, Stephen Nickell and Neal Hatch provided useful comments. Of course, this speech reflects my personal views and should not be interpreted as those of the Bank of England or other members of the Monetary Policy Committee.

ADJUSTING TO LOW INFLATION – ISSUES FOR POLICY-MAKERS

Paper for Manchester Statistical Society – February 18, 2003

One of the significant factors in economic debate over the past few years is the way in which the UK's economic history from the early 1970s to the early 1990s is now being put firmly into a broader context. During that period, high (and volatile) inflation was seen in many quarters as the main problem that stood in the way of the UK achieving greater economic success and in particular achieving lasting reduction in the rate of unemployment. The following quotes capture the flavour:

The Conservative pamphlet 'The Right Approach', from 1977, stated that: 'our prime and overriding objective is to unwind the inflationary coils which have gripped our economy and threaten to throttle the free enterprise system'.

Referring to the end of the 1980s, John Major's views on inflation were just as apocalyptic: 'the principal objective was the destruction of inflation, an insidious demon, always waiting in the wings, that I had every reason to loathe. Inflation is disastrous and morally corrosive, and it destroys lives.' (Major, 1999).

In 2003, the flavour of the debate has changed significantly. This does not refer to the odd (odd in both senses) comment suggesting that perhaps a little more inflation would actually be welcome. Rather to comments to the effect that low inflation is not by itself a sufficient, or perhaps even adequate, achievement for policy-makers. Something of this sort presumably underlay the recent Treasury Select Committee recommendation that: "The Treasury and the Bank of England should undertake a joint review of the UK experience of inflation targeting to date.....examining its impact on both aggregate and sectoral inflation and growth." (Treasury Select Committee, 2003)

The results of low inflation?

Overall, it is very clear that there are many benefits from the successful achievement of low and stable inflation, especially in terms of greater macroeconomic stability and improved efficiency. In addition, firms and households are able to plan with greater

confidence, and there are efficiency gains from the greater transparency of relative prices. In the Treasury's own description of the new policy framework (see Balls and O'Donnell, 2002), stress is laid not only on these more usually cited benefits, but also on distributional issues: 'the costs to the poor (of high inflation) come from policy fluctuations arising from intermittent and inconsistent attempts to fight inflation, and the fact that inflation is often a reflection of distributional struggles within the economy'.

But any major change yields a variety of consequences. The trend of lower and more stable inflation has been established here since the early 1990s, and confidence in the sustainability of this trend enhanced by the granting of operational independence to the Monetary Policy Committee in 1997. The chart (Chart 1) of the estimated inflation risk premium in UK long-term interest rates indicates that the credibility of the commitment to low inflation increased in the eyes of the financial markets through the mid-1990s, and that the further improvement to credibility was recognised quickly by those markets in 1997. However, in the wider economy it is reasonable to suppose that a full appreciation of the implications of this change in policy structure would take rather longer to emerge and therefore the UK could be regarded as being towards the end of a period of transition to a low inflation economy. The two main issues raised by are:

- The process of transition itself leads to a number of questions for policy-makers. There are difficult judgements to be made, about where the new equilibrium levels are for a range of economic indicators and about how quickly this new equilibrium will be reached. In addition, in some cases there may be misperceptions about the implications of the changes in the inflation process, with potentially disruptive adjustments. Inevitably, reaching judgements about what is going on is complicated by other simultaneous changes, now most obviously globalisation pressures and a faster pace of technological development.
- To the extent that high and volatile inflation creates an arbitrary situation of winners and losers, the move away from this regime will mean that those who were 'winners' will feel their situation to have worsened. It is therefore not

surprising, since losers generally end to be more prominent in debate, that some comments are made which appear to question the benefits of low inflation.

Over the past few years, a range of concerns about the UK economy have been expressed, where one or both of the questions raised above has some relevance.

Among them are:

- The risk of a general deflation
- The impact on manufacturing of prolonged deflation in that sector
- A restricted ability of relative wages to adjust, to the extent that zero represents a lower bound on pay settlements
- Lower profitability, as lower inflation improves price transparency and increases competitive pressures
- The decline in annuity rates and in investment returns putting downward pressure on pensions
- A lower household savings rate as low nominal interest rates are seen as unattractive
- Willingness to take on higher levels of household debt, fostering inter alia sharp rises in house prices.

Real interest rates and inflation

Whether or not some of the potential changes listed above are actually results of the low inflation regime turns to some extent on whether or not low inflation also means lower real interest rates. The household savings ratio, for example, might be affected by this. The view that ‘it is not worth saving today’ would only be true if the return on saving was now lower after adjustment for inflation had been made, rather than just the nominal rate being lower. Economic theory (in this case represented by the Fisher effect) suggests that changes in inflation, in the long-run, should not have any effect on real interest rates – ie real interest rates should adjust to offset any change in inflation. However, the real world may not quite accord with this theory.

Real interest rates, particularly long-term real interest rates, play an important role in the economy. But they are very hard to draw firm conclusions about, as they are

imperfectly observable. Even in the UK, where the return on indexed bonds can be used as a guide, this is not a perfect measure of real rates due to distortions arising from the tax system and other factors such as the impact of the Minimum Funding Requirement on pension funds' bond holdings.

Several of the factors that determine real rates are also hard to fix with much precision. A simple description might be as follows: real rates are driven by the interaction between the supply of funds (savings) and the demand for funds (investment). In turn, saving at any given real interest rate is determined by consumers' rate of time preference (if future income is not valued very highly, then a high interest rate is required to induce savings) and expectations about future labour income. Investment at any given real interest rate is determined by the marginal rate of return on capital projects. So analysis of what drives real rates is inevitably difficult.

In the developed world, with few capital controls, real interest rates are also likely to be determined to some extent by global factors, rather than purely domestic. In turn, at the global level, there is some evidence for OECD countries that the level of OECD government debt affects real interest rates (Ford and Laxton 1999), although, unsurprisingly in view of the many uncertainties around this whole topic, this is still somewhat controversial. There is, more clearly, evidence that while there may be some global convergence, domestic factors still play a significant role in determining real interest rates (Breedon et al, 1999).

In the short-term, monetary policy clearly affects real interest rates at least at the short end of the yield curve by moving nominal short rates around the (unobservable and imprecise) natural real rate. However, there is also a more structural question about the relationship between the real interest rate and the credibility and success of the monetary policy framework. In looking at the question of how real rates might be affected by monetary regime changes, the focus is on long-term rates (having in mind around a ten-year rate), in order to abstract from the fluctuations of the short-rate. Of course these fluctuations will affect long rates also, but to a lesser extent.

Has the low inflation regime changed UK real interest rates?

While both savings and investment behaviour reflect what might be relatively slow-changing structural features of the economy (the rate of time preference for savings, and capital productivity for investment), the behaviour of both consumers and firms will also be affected by perceptions of risk over rather shorter time horizons. And, as indicated above, UK real interest rates will be affected to some (uncertain) extent by convergence of real interest rates at the global level.

The change to a low inflation regime might be expected to have the following results which might affect real interest rates:

- For consumers – greater confidence about their future labour income due to the greater stability of the macroeconomy would tend to raise the real rate, as less is saved at any given real rate due to a reduced precautionary demand for saving. On the other hand, consumers are more confident of the real return received from long-term savings, reducing the risk premium on long-term interest rates and lowering the real rate.
- It is equally difficult to be sure about the implications from changes to firms' behaviour. The reduction in volatility of inflation and of output growth should reduce the riskiness of investment, and therefore increase the demand for funds at any given real rate, pushing the real rate up. However, there is a probable countervailing effect from the loss of pricing power as low inflation increases price transparency, reducing the return to capital and lowering the demand for investment funds.
- Some small positive effect on the real interest rate might also be expected from the increased growth rate of the economy resulting from improved allocation of real resources due to the better functioning of the relative price mechanism.

The relative size of all these effects is highly uncertain, and it is therefore unclear which direction the long-term real interest rate in the UK might be expected to shift. Interpreting the movements in interest rates over the recent past is unlikely to yield a clear guide, due to two main factors:

- Not all of the adjustments suggested above will occur immediately. The evidence in the response of the long-term bond yield to the announcement of operational independence for the Bank of England (Chart 1) is that the financial markets adjustment was underway very quickly. However the expectations of consumers and of firms may adjust more slowly (evidence with regard to both of these is discussed below).
- Other factors than the monetary policy regime will also be affecting real rates. These include, most importantly, the path of real global interest rates and the inherent riskiness of investment projects from a microeconomic standpoint. On the latter point, increased intensity of competition and shortening product cycles might lead firms to raise the ‘hurdle’ rates used in investment appraisal.

Two studies which have looked at the relationship between inflation and interest rates empirically have both concluded that lower inflation is linked to higher real interest rates. One of these reviewed evidence for the US over the past 100 years (Ahmed and Rogers, 2000). The other looked at structural breaks in real interest rates and mean inflation rates across a range of industrialised countries since 1960 (Rapach and Wohar, 2002). However, given the points about the problems of observation already made (and reinforced below) these cannot be regarded as conclusive.

Recent history of real rates

The recent history of real interest rates may provide some pointers in terms of trying to understand how the transition to a low inflation environment is affecting behaviour now in the UK economy, and what further changes might be expected. Chart 2 shows real long-term (ten-year) rates since 1960 in the UK, the US and Germany. The measurement of real rates is of course difficult as they depend critically on unobservable inflation expectations, although the introduction of indexed-linked bonds in the UK in 1981, and in the US in 1987 enables better (but not perfect, as discussed above) estimates to be arrived at for the recent past. The real rates below are in fact derived simply using a two year moving average of actual inflation rates (centered except for the last few observations).

The picture for the UK and the US is broadly similar. During the 1960s, rates were around 2-4% and showed no clear trend. In the 1970s real rates, at least measured in this way, became much more volatile, with the periods of unanticipated inflation around the two oil shocks resulting in negative real interest rates (it is possible that had index-linked bonds existed at that time, these very pronounced negative rates would be seen to reflect mismeasurement to some extent). In the early 1980s real rates rose sharply in both countries, though more markedly in the US, taking the level above that generally prevailing in the 1960s. More recently, in both countries there has been some downward drift in the real rate since the mid-1990s, a trend which has gone a little further in the US.

In Germany the past forty years has seen less volatility of real rates, with a much less marked fall in rates in the 1970s. Real rates were generally much higher than in the US and UK in the 1960s and 1970s, but in the last two decades the three rates have moved closer together, and the UK and German long rates in particular have begun to move in a more similar fashion. Taking a big picture viewpoint, the pattern of apparently very low real rates in the 1970s being followed by a pick-up and then a tailing-off in the 1990s is also seen in other major industrialised countries.

So while it might be concluded that the improved credibility in the UK may have reduced real long-term rates modestly, some of the recent fall probably reflects other factors, possibly including the reduction in net government debt across the OECD in the late 1990s. However, it is therefore likely that some of the fall in real rates will prove to be permanent, rather than cyclical, and even a small change could be expected to have sizeable effects on long-term financial contracts. The remainder of this paper looks at what kind of changes, in terms of the issues mentioned at the start of the paper, could be expected from the shift to lower inflation and, to the extent these prove durable, lower real interest rates.

The risk of deflation

Concern about deflation has risen up the list of economic worries over the past year or so, sparked both by the continuation of very weak economic outturns in Japan and by the fear that the present world slowdown will prove very prolonged due to structural weaknesses. A generalised deflation that resulted from a loss of confidence would of

course be undesirable, and if sustained for any period would damage growth and confidence over several years. In my view, this sort of deflation is unlikely in the near-term either in one major developed economy, or as a more general developed country deflation. Equally, neither can be dismissed entirely.

For most countries, it is fairly easy to produce plausible reasons in most cases why an outturn similar to the Japanese situation is very unlikely. The institutional factors, and the probable policy reaction functions elsewhere are more robust and flexible, making it more likely that deflation could be avoided and less likely it would prove prolonged if it were to arise as a result of a major unexpected adverse shock. In the UK in particular, as has been frequently pointed out, the present high level of employment and service price inflation running at 4.8% suggest that an economy-wide deflation is ruled out in the foreseeable future.

However, the situation in Germany is somewhat different. There, unemployment is presently 8.4% (on the Eurostat definition), inflation is 1.1%, consumer spending was weak through 2002 and consumer confidence is well below the long-term average. Diagnosis of the persistent weakness of domestic demand is not straightforward, but a plausible explanation is that the German economy, still wrestling with the aftermath of reunification, is not competitive within the euroarea at the fixed euro parity. With no possibility to adjust the exchange rate or to set an interest rate directly suited to the weak economy, Germany would, on this basis, face a period of painful real wage adjustment. One reason for considering that this process should be undertaken gradually, rather than forced quickly via a tighter fiscal policy, is that in these latter circumstances deflation could become a possibility.

Deflation in manufactured goods

The other source of deflation that has been discussed in the current environment is the present excess of supply over demand, on a worldwide basis, of some major manufactured goods. This has arisen as new supply capacity has been brought on stream in some industrialising countries at a time of prolonged slow global growth. The consequence, reinforced by technological change which is also supporting more intense global competition, has been deflation in the parts of the manufacturing sector.

With the present inflation target, higher productivity growth in manufacturing than in services is likely to lead to very little inflation in the sector as a whole on a permanent basis, and in some sectors very probably periods of falling prices. Where this is productivity-driven, there is no particular reason for concern. However, for sectors where it is competitive pressures that are driving prices down in the UK, this creates pressure for nominal cuts in wages (whether this raises a problem is discussed further below).

But this sectoral issue certainly does not raise any problems from the macroeconomic standpoint, where the real worry is about a generalised deflation, most probably resulting from a shortfall in domestic demand. In the UK, a key reassurance against the dangers of deflation is the symmetric inflation target. This means that the MPC is committed to working to keep inflation at a target which is high enough to mean that the risk of encountering an economic shock large enough to result in a deflationary spiral is very small. Indeed, a recent ECB working paper on this topic concludes that not only the UK, but also other regimes with inflation targets are already in a situation where the risk of deflation is given sufficient (or even too much) weight relative to the costs of inflation (Yates, 2002).

Can relative wages adjust sufficiently?

Even if there is little risk to the overall economy from a deflationary spiral, there could be some cost from having a low inflation target if nominal wages are sticky at zero because it is difficult to get workers to accept pay cuts in cash terms. This might lead to real wages overall proving difficult to adjust downward. Also, the labour market would work less well, as there would be a compression of relative wages, compared to the distribution prevailing at higher inflation rates. This would reduce the efficiency of relative wages as mechanism for adjusting the labour supply, both overall and between sectors.

However, a recent paper (Nickell and Quintini, 2002) finds, in line with other studies, that in the UK a considerable proportion of the wage-earners do receive annual pay cuts (ranging up to 20% when inflation is low). Further, the paper concludes that while there is clear evidence of some bunching of nominal pay changes at zero – this

is not sufficiently important to make much difference to the overall functioning of the economy. This suggests that this is not likely to be a particular concern for policy-makers, and implies that the issue of competitive pressure forcing down prices in parts of the manufacturing sector similarly should not raise any issues from the macroeconomic perspective.

Profits and firm behaviour

Over the ten year period since the UK moved toward adopting inflation targeting, and more noticeably since the shift to the present regime, it is clear that any lingering sense in the business community that higher inflation might not be such a bad thing has been largely dispelled. However, it is easy to understand why it used to exist, which is that while greater price transparency improves economic efficiency, it also reduces the opportunity for earning excess profits from misperceptions about pricing. But this factor is not likely to affect the average profit situation in terms of the average return to capital across the economy. This is going to be determined much more by capital productivity in the long-run and the balance of power in wage-bargaining over the cycle.

In the UK, the long-run story with regard to profitability is shown in Chart 3. For the manufacturing sector, profitability in the mid-1990s was unusually strong, and the subsequent decline is to a level still above the very low levels of the 1970s. Service sector profitability, for which such a long run of data is not available, shows a similar pattern over recent years but rates of return are consistently higher. As far as manufacturing is concerned, the profits trend seems related to the swings in the exchange rate, although this is unlikely to have been the only factor. Increased global competition has been a further pressure recently years, with global growth below its long-term trend in three of the past five years. It is unfortunately not possible to disentangle the data for profits for the service sector to determine how far the deterioration in services profits is due to tradeable services.

The transitional issue which does arise from the move to a low inflation/low nominal interest rate environment is that firms may be slow to adjust their required rates of return on projects (hurdle rates), and therefore could underinvest in the early years of

a changed regime. In the UK at least, the evidence however suggests that this has not been a significant factor. The CBI ran two surveys of manufacturing companies' hurdle rates, one in 1994 and one in 2001 (Godden, 2001). Despite a general health warning that this data should not be taken too literally, as in practice firms can deviate from their declared hurdle rates, these provide useful evidence on what adjustment has taken place. In the later survey nominal hurdle rates had been reduced by over 5%, compared to a reduction in real hurdle rates of just over 3%. And a greater proportion of firms using hurdle rates assessed them in real terms, stripping out the impact of economy wide inflation. For the firms (generally smaller) using the simpler payback criterion, the average had shifted from 2.7 years to 3.6 years. There was some evidence, however, that the adjustment was not complete, as while 70% of firms had reduced their expected inflation rate, the average expected rate had declined from 4.9% to 3.6%, still above the 2.5% inflation target.

As well as lowering target rates due to lower expected inflation, firms might have been expected to reduce the risk premium on investment projects due to the greater expected stability of the economy. Indeed, the fact that real hurdle rates have fallen, and that nominal hurdle rates declined by more than inflation expectations tentatively suggests that this has occurred to some extent. However, it is important to note that other factors (such as globalisation and shorter product cycles) would tend to discourage any such reduction in risk premia. To the extent that this trend has occurred, firms might be expected to show a greater willingness to take on debt.

It is difficult to determine directly from the data (see Chart 4) whether business investment in the UK has been unusually weak in a way that might be related to a tardy adjustment of firms' target returns. Firstly, since the move to low inflation the UK economy has not yet experienced a full economic cycle. Secondly, business investment itself has been affected by a number of other special factors: in particular a speeding-up in the relative decline of investment goods prices, and a surge of ICT investment in the late 1990s (related to the simultaneous arrival of the widespread business usage of the internet, and the concerns over the millennium bug). Business investment has been weak since 2000, as the chart shows, falling relative to GDP in both current and constant price terms. But it seems unlikely, given the evidence cited

above, that this has been due to a misperception, or slow adjustment of inflation prospects.

Changes in company behaviour in response to low inflation are also apparent in pricing. Taylor (2000) suggests a decline in the extent to which changes in import prices are reflected in consumer prices, which he interprets as a decline in the pricing power of firms. Campa and Goldberg (2002) find that in some countries low inflation has been associated with a fall in the extent to which changes in exchange rates are reflected in import prices, though this is due in part to changes in the type of good being imported, rather than to low inflation.

So far the possible consequences of a move to low inflation that have been discussed relate mainly to changed behaviour or pressures on firms. It suggests that from a policy perspective none of the potential difficulties – sectoral deflation, real wage adjustment and slow adjustment of investment hurdle rates – have in practice led to any adverse effects in the UK. More tentatively, it indicates that firms have on the whole adjusted to the changed environment. In addition, some of the changes, for example to the extent that there is less pass-through from exchange rate volatility, may make the task of the policymaker a little easier.

Impact of low inflation on the personal sector

However, it is households where the concern about a failure to adjust is considered a major issue.

The argument here is that households, while in the short-term realising the consequences of low inflation in terms of wage claims, nominal interest rates, etc., have nevertheless failed to understand the longer-term implications of low inflation. In particular, it is argued that prospective real pension payments will be lower than the aspirations of the present working population, and that on the other hand household debt will be eroded more slowly than presently expected in real terms. The implication of these misperceptions, if they exist, would be that the household savings ratio is below its equilibrium level, and that households will wish to adjust both this

ratio and the debt/income ratio at some future date. Both of these would result in a period of below trend personal spending, and in the case of the debt/income ratio in particular there is a fear of an abrupt adjustment if there were an adverse shock to the household sector such as a rapid rise in unemployment.

What is the evidence that households are in fact making either of these mistakes?

Is pension saving inadequate?

The chart below (Chart 5) shows household savings are indeed lower, relative to income, than the long-term average, although the ratio has been fairly stable over the past couple of years. However, in inflation-adjusted terms, taking account of the fact that less saving is needed to maintain the real value of financial assets, the ratio is not particularly low.

A number of factors suggest that the savings ratio ought to have risen in recent years, if individuals are to attain the same replacement ratio of income in retirement as that enjoyed by the most recent cohort of retirees. The most obvious of these is lower mortality rates, but any fall in real long-term bond rates would also add to pressure for higher saving.

However, in practice the situation is more complicated than that:

- Firstly, for some households towards the bottom of the income distribution the Minimum Income Guarantee, which effectively sets a floor to income in retirement, may actually have made savings less worthwhile.
- Secondly, a large number of households have been benefiting from the big rise in house prices, and the impact of this on household balance sheets has only recently been offset by the falls in equity values. Many may be intending to downsize their house on retirement, and would therefore regard themselves as having an offset to the lower expected income from pension savings through financial asset acquisition. However, this is not going to apply to the less well-off, and there may be a significant number of households who will not benefit from this effect.

- Thirdly, households may never have counted on being able to enjoy the very high returns on pension savings that those retiring over the past decade or so have experienced. Perceptions of what might be expected from pension savings are generally obscured for individuals by the wide range of experiences among retirees, depending on number of jobs held, type of scheme, and other factors.
- Fourthly, to the extent that there is realisation of disappointment relative to previous expectations, individuals may now implicitly be thinking of retiring a little later, rather than reducing consumption today.

So, while it is very likely that there are many individuals who do have an unrealistic view of their pension prospects, it is not obvious that this has become more widespread. Studies of the so-called savings shortfall have been based on specific views of desired income in retirement which may or may not be correct. We will have to await the outcome of the enquiry into this topic by the newly-appointed independent pensions commission to get a better understanding of just how significant this problem really is.

A further source of perceived concern is over annuity rates. Here the big picture is of course that annuity rates have declined over the past ten years, primarily reflecting lower long-term interest rates. A recent study (Cannon and Tonks, 2002) concluded firstly that annuity rates, while below the unusual peaks of the early 1990s, were still good value in terms of the net present value of the annuity, relative to the average of the past 30 years. The early 1990s, being followed by an unexpected and durable fall in inflation, offered purchasers of level annuities unusually good value. However, their second conclusion, that low annuity rates did not matter due to the steep rise in the value of pension funds, looks less convincing following the recent further declines in equity markets.

So as far as pensions are concerned, the move to low inflation may, via any reduction in long rates, prove to be a further factor making the acquisition of pension rights more costly. By itself, however, it has not made annuities poor value, but the comparison with the unexpectedly good value of annuities over the previous few years has given rise to this perception. Nevertheless, there would be distributional consequences from any sustained trend to lower investment returns.

Is the consumer overborrowed?

It is certainly the case that the debt/income ratio (Chart 7) has been rising rapidly for UK consumers in recent years, and is now over 120%. Capital gearing has now reached around 19% (Chart 6). The debt/income ratio is now relatively high in the UK by international standards, although a similar rise in the ratio has also been seen in the US. But this fact cannot be used to assert that the ratio in the UK must have gone too far – it is notable that in the Netherlands the debt/income ratio is now around 190%.

A shift towards a higher level of consumer debt would be expected in the changed economic circumstances, due in part to less front-loading of the debt burden on mortgage debt which has reduced credit constraints for borrowers. (Less ‘front-loading’ refers to the fact that lower interest rates mean that payments on a loan are initially less burdensome, relative to income, although as the real burden of debt is eroded less quickly later in the loan, payments will be higher than under high inflation). In addition, it is likely that changes in the perceived risk of unemployment, will have encouraged a higher level of debt. Flows into unemployment have been gradually declining since 1993, and in addition there may be a perception that it is easier to find another job (although the effect of the New Deal makes it difficult to substantiate this from looking at unemployment duration).

However, while this should improve confidence in the ability of a household to maintain income, it is unclear whether the greater chance of re-entering unemployment also implies that income is easily restored to the previous level. A study in the late 1990s (Gregg, Knight and Wadsworth 1999) indicated that in the mid-1990s the cost of job loss was highest for older workers and for those with low educational qualifications, and that on average displaced workers re-entered the labour market into jobs paying 10% less than their previous employment. While this suggests that there is a cost to being made unemployed, the low level of interest payments, relative to income, at present implies that this decline in wages would not necessarily lead to default as interest payments became an intolerable burden.

The present combination of a firm commitment to low inflation and a sustained improvement in the labour market is unprecedented over the past 30 years of the UK's economic history – a period in which the financial markets have changed very greatly. In these circumstances it is difficult to judge what level of the debt/income ratio will prove to be sustainable.

In assessing whether it is likely that households have an appreciation of the fact that debt will erode more slowly in real terms, one question is whether individuals' inflation expectations have declined. There are a number of UK surveys on this, of which the Barclays Basix survey (available only up to early 2001) asks about inflation expectations over the next 12, and the next 24 months. The results of this survey (at least with regard to the general public, other groups in the survey produce more reassuring answers from the viewpoint of an MPC member) are perhaps a little surprising (Chart 8). There is only a modest downward trend in inflation expectations since 1997, and expectations at the two year horizon are persistently higher (though the gap has narrowed slightly). In particular, one-year ahead inflation expectations in early 2001 remained above 3.5%.

While this suggests there is some way yet to go in embedding the 2.5% target in the public consciousness, equally it does not indicate that there is any expectation of seeing inflation back at the very high levels frequently experienced prior to 1992. And it seems unlikely that inflation expectations will have changed so much over the past year that the outturns we now expect for 2003/4, generally a little above the 2.5% target are so out of line that this would be much of a shock to households. (The Bank of England's survey (conducted by NOP) indicates rather lower inflation expectations than the Barclays Basix survey, although the question asked is not identical. It has however only been conducted since 1999 and does not suggest a very clear trend in inflation expectations.)

Of course, the debt figures for the whole of the household sector conceal a variety of different situations, and some particular groups of households are in situations which look to be a great deal more fragile. But more work needs to be undertaken to uncover exactly what has given rise to the change in debt ratios over recent years (for example, how far student debt has changed the picture) before concluding that even at

a lower level of aggregation there are problems with debt which would lead to a need for retrenchment with significant macroeconomic consequences.

What are the problems from the recent rise in debt? There seem to be four issues to consider:

- The debt/income ratio cannot rise indefinitely, unless assets also rise relative to income. Over the next two years, slower house price growth may well subdue asset growth, and a reduction in the pace of consumer spending is therefore expected to bring it into line with the growth of income. Indeed, the forecast published in the February 2003 Inflation Report foresees just such a slowdown, which may be linked with a slower pace of debt growth.
- Part of the recent growth in debt may prove to have been an overshooting of the desired long-term level of debt, as short-term interest rates have probably now for some time been unusually low, as the MPC has sought to offset the weakness of foreign demand. But it is very difficult to distinguish this from simply the upward adjustment of debt in response to the improved medium-term economic environment.
- The acquisition of a higher level of debt by the private sector has been linked with a higher current account deficit. However, although the trade deficit has increased sharply, the rise in the current account deficit has been less severe, and the deficit may decline over the next couple of years as the pace of household expenditure growth fades. But there is some risk of a less easy correction of the deficit, driven by a big fall in the sterling exchange rate.
- The higher debt levels induced by the greater stability of the new regime increase the dangers if, due to a policy error or an external event that is too significant to be offset successfully, there were to be a period in which either unemployment rose rapidly, or interest rates needed to be raised significantly. In either of these situations, households might cut back their expenditure sharply in order to strengthen their balance sheets.

This last point does give rise to some unease for policy makers in that these bigger risks may exist, and in particular that the cost of a policy error might be greater (despite the evidence that many sectors of the economy may now be well-adjusted

to the new regime). However, the alternative of not permitting the upward trend in the debt/income ratio (if it is accepted that the bulk of the rise is not due to the present, probably unusually low rate of interest) would imply restraining growth in the economy (the MPC's subsidiary objective) reducing welfare as well as missing the inflation target. That would have prevented the UK from reaping one of the very benefits the new regime was intended to bring.

Conclusions

There is no serious questioning of low inflation as a goal, and indeed many of its benefits are readily apparent to businesses as they construct their plans. But some of the consequences of the low inflation regime are starting to become more apparent and have given rise to the expression of a fresh set of concerns. Some of these however seem to be over-stated, certainly in a UK context where there is at present little risk of a generalised deflation.

Other comments about the impact of low inflation turn on perceptions about what may have happened to real interest rates (for example, concerns about low annuity rates). There is little guide from theory or past experience to whether or not a change to low inflation should be expected to affect real rates. Though the expectation that low inflation may improve growth would suggest a possible rise in real rates, the inflation risk premium, certainly on bonds, is likely to have fallen, and the latter may prove more significant.

Firms and wage-bargainers seem, on the available evidence, to have adjusted to the new regime, though surveys of inflation expectations suggest that households may not have completed their adjustment. The key problem for policymakers is how far households have appreciated the longer-term implications of the new regime, and to what extent they may have adjusted their debt/income ratio up too far because these implications have not been fully grasped.

But a somewhat higher debt/income ratio is to be expected in these changed circumstances, and to resist this adjustment would run the risk of holding down growth unnecessarily. This higher ratio then may have increased the risks from policy

error, or from an adverse shock to the household sector. But if this adds to the difficulties of policymakers, it also has to be remembered, as a counterbalance, that other adjustments to the new low inflation regime (lower rates of exchange rate pass-through, firmly based inflation expectations by firms and wage bargainers) are important factors adding to the stability of the economy.

References:

- Ahmed, S. and Rogers, J.H. (2000): Inflation and the great ratios: Long-term evidence from the US; *Journal of Monetary Economics*, Vol 45.
- Balls E. and O'Donnell G., eds (2002): Reforming Britain's Economic and Financial Policy, H M Treasury
- Breedon F., Henry B. and Williams G. (1999): Long-term real interest rates: evidence on the global capital market; *Oxford Review of Economic Policy*, vol 15(2) (1999)
- Campa, J and Goldberg, L.(2001): Exchange Rate Pass-Through into Import Prices: A Macro or Micro Phenomenon?; *NBER Working Paper 8934*
- Cannon, E and Tonks, I (2002): Annuity Prices, Money's Worth and Replacement Ratios: UK Experience 1972-2002, University of Bristol
- Ford R. and Laxton D. (1999): World Public Debt and Real Interest Rates, *Oxford Review of Economic Policy*, 15(2)
- Godden, D (2001): Investment Appraisal: have manufacturers changed their approach since the mid-1990s?; *CBI Economic and Business Outlook*, November 2001
- Gregg, P., Knight, G. and Wadsworth, J. (1999): The Cost of Job Loss; in 'The State of Working Britain' eds Gregg and Wadsworth, Manchester University Press.
- Major, J. (1999): The Autobiography; HarperCollins
- Nickell, S and Quintini, G. (2002): Nominal wage rigidity and the rate of inflation; Centre for Economic Performance, London School of Economics.
- Rapach, D. and Wohar, M. (2002) Regime Changes in International Real Interest Rates: Are They a Monetary Phenomenon?; Seattle University, mimeo.
- Taylor, J. (2000): Low Inflation, Pass-Through and the Pricing Power of Firms; *European Economic Review* 44.
- Treasury Select Committee (2003): The 2002 Pre-Budget Report, Second Report of Session 2002-03.

Yates, T (2002): Monetary Policy and the Zero Bound to Interest Rates: A Review,
ECB Working Paper no.190.

Chart 1: Total inflation premium expected in ten years time, UK 1997

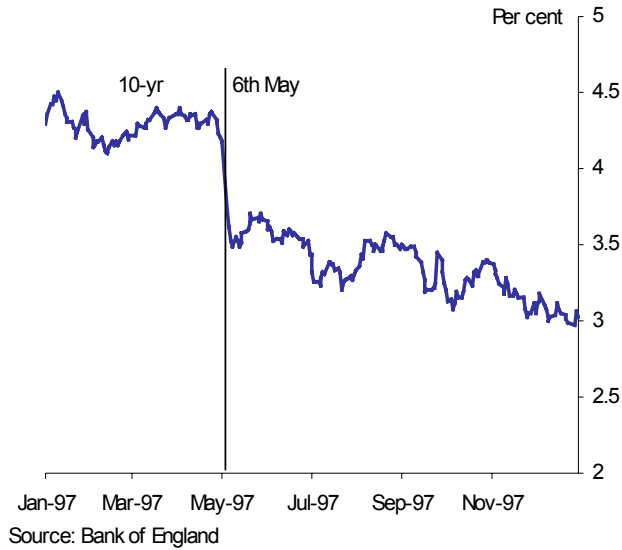


Chart 2: Real long-term interest rates

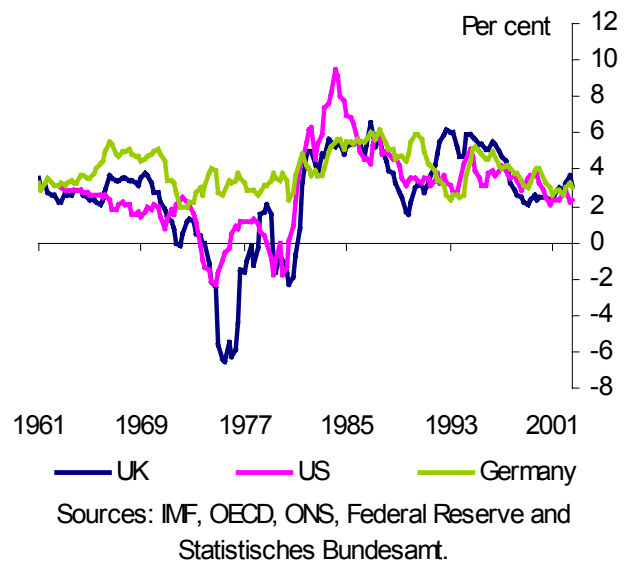


Chart 3: Net rate of return of private non-financial corporations (including oil)

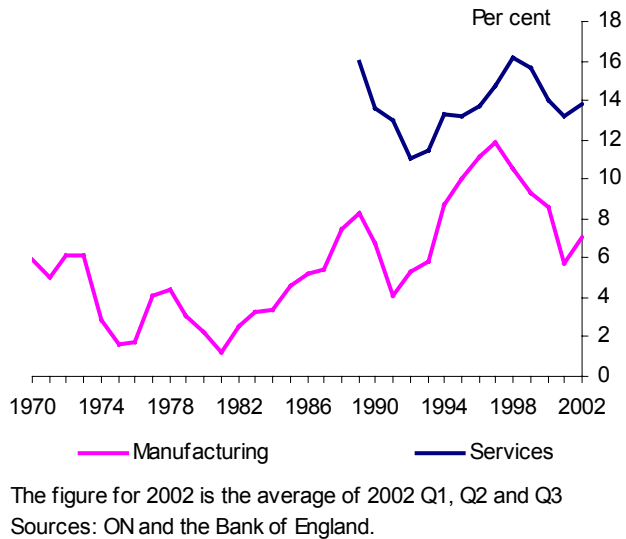


Chart 4: Business investment ratios

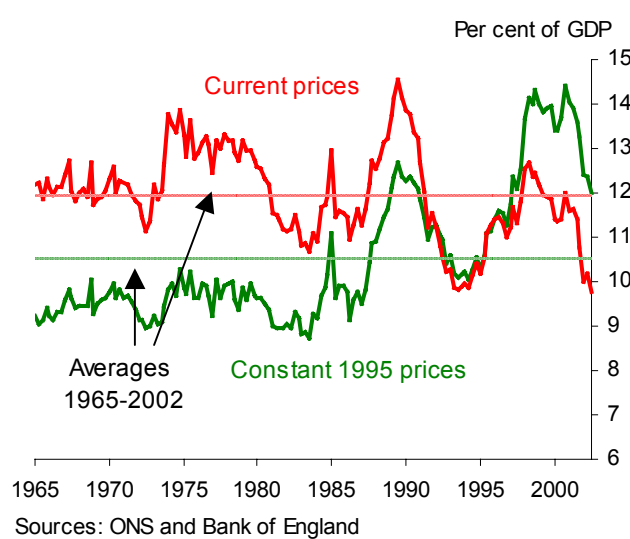
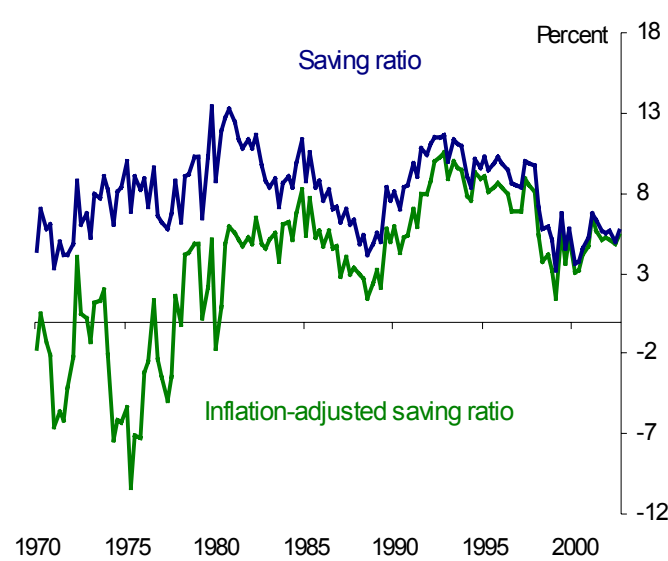
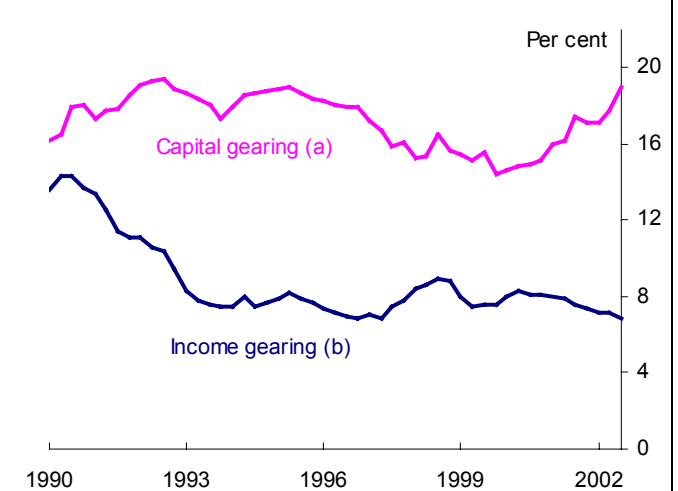


Chart 5: Household saving ratios



Sources: ONS and Bank of England.

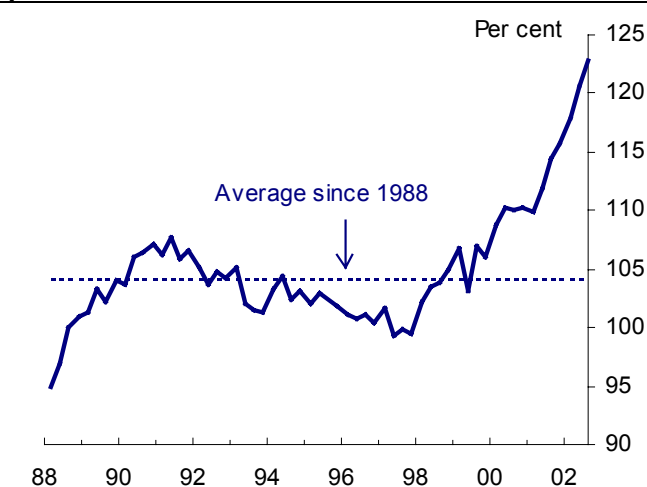
Chart 6: Household sector gearing



(a) Capital gearing is the ratio of household debt to net total wealth
 (b) Income gearing is the ratio of household interest payments to post-tax income.

Sources: ONS and Bank of England.

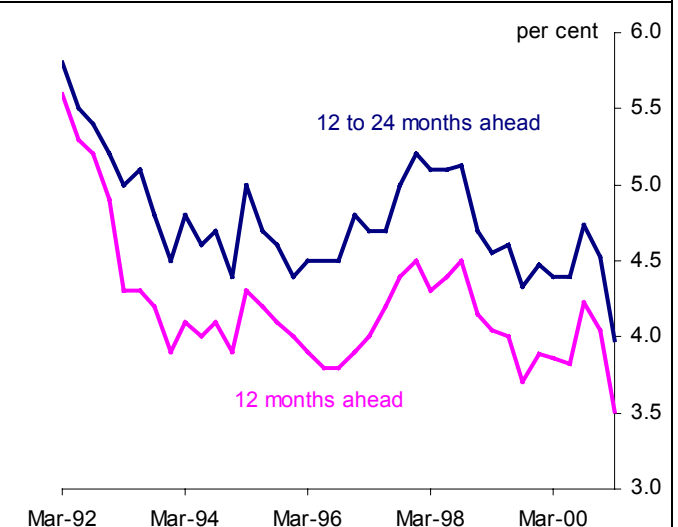
Chart 7: UK household sector debt as a percentage of post-tax income^(a)



^(a) Debt is total liabilities.

Sources: ONS and Bank of England.

Chart 8: General public inflation expectations



Source: Barclays Bank Basix