

Rachel Lomax: Stability and statistics

Speech by Ms Rachel Lomax, Deputy Governor of the Bank of England, to the North Wales Business Club, Llandudno, Wales, 23 November 2004.

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“The first time we saw the MPC we were given the folder of all the statistics they had which was something like a foot high. We found it hard to believe that they all read that stuff but they claimed they did. Statistics seem to be their life blood...”

Chairman, House of Lords, Select Committee on Economic Affairs, HL Paper 176 - II.

The past decade has been a time of unparalleled stability for the UK economy. It is more than twelve years since the United Kingdom experienced a single quarter of negative GDP growth. Consumer spending, investment and output have all shown a degree of stability over the past ten years which is unmatched in any decade since the war - indeed in the twentieth century. Inflation has been impressively stable too, as well as lower on average than at any time since the war. And, to complete the story, employment has grown steadily, and unemployment has fallen to a 30 year low.

A stable economy has created a much better climate for business. So no wonder soaring oil prices make people nervous. Those with long memories know we have achieved low inflation and steady growth before - though never for so long - only to see them slip away. They ask: what's to prevent that happening again?

A lot has changed in the past fifteen years. We now have an approach to setting interest rates which provides much better incentives for policy makers to take the right decisions. This - and the strong track record built up over the past decade - has stabilised expectations, with the result that it takes more to throw inflation off course. This is crucial insurance against the risks of a more turbulent decade ahead.

A trickier issue - and one on which I want to spend some time tonight - is the vexed question of information. Statisticians get an even worse press than economists. But they are indispensable. Just as well run businesses need good management information, so successful monetary policy depends on having good information about the economy. The statistical fog surrounding the true state of the economy has proved a particularly potent breeding ground for policy errors in the past. Are we yet in sight of a clearer view?

The policy framework

But let me start first with the policy framework: what grounds are there for being confident that it provides the right incentives for policy makers to take good decisions?

The origins of the present approach go back to 1992, when the Conservative government adopted an inflation target as the centrepiece of a package of reforms designed to rebuild credibility with financial markets in the wake of sterling's abrupt departure from the ERM. This approach - which came to include the popular “Ken and Eddie show” - proved successful in establishing a track record of low and stable inflation. In 1997, the incoming Labour Government “entrenched” this success by handing the operation of monetary policy over to the Bank of England and setting out a detailed institutional and legal framework for the conduct of monetary policy. The result was to depoliticise interest rate decisions, within a framework of accountability that left the Government clearly in charge of setting objectives for inflation.

Taking operational monetary policy decisions out of the hands of politicians was a decisive step. The touchstone of a successful monetary policy framework is its credibility. If people believe policy makers will always act to keep inflation low, this expectation will itself put a brake on inflationary wage and price increases.

Economists long argued that it was difficult for politicians to make a fully credible commitment to low inflation. And perceptions are what matter: even if a government has no intention of manipulating

monetary policy for political ends, as long as firms, workers and financial markets entertain that as a possibility, the job of keeping inflation low will be that much harder.

Nowadays, the Chancellor specifies the inflation target each year, in a letter to the Governor, but decisions about interest rates are taken by a Committee of nine independent experts who have strong incentives to keep inflation close to target.

That is not just because a measurable target provides a clear focus for decisions, important as that is. The regime is intentionally highly transparent with a heavy emphasis on accountability to Parliament and the general public as well as the government of the day. Our individual votes are a matter of public record, and we regularly appear in front of the Treasury Committee to explain our decisions. Minutes of MPC meetings are published within a fortnight. And every three months, we publish an Inflation Report, with the MPC's views on the outlook for growth and inflation over the next three years. This is the subject of regular briefings to business audiences around the country as well as a high profile press conference fronted by the Governor.

All this gives monetary policy watchers - in financial markets and in the country at large - plenty of information by which to judge how we are doing, as well as to form their own expectations of future inflation and growth.

How successful have we been in establishing a credible policy regime? A key test is what people expect about inflation, and in particular how those expectations react to unexpected economic news. If the regime is credible, people should expect inflation to stay close to target. And any shocks that affect inflation in the near-term should have no impact on inflation expectations further out, because people believe we will take whatever action is needed to return inflation to target. And by this measure, the current policy framework seems to be highly credible.

There are those who claim that the MPC has never really been tested. In fact, the UK economy has been hit by a number of quite severe shocks over the past five or six years. International financial markets were convulsed by the Asian financial crisis in 1997, the Russian debt default and LTCM crisis in 1998, the 9/11 terrorist attacks, the Enron and WorldCom scandals in 2001/2 which dented confidence in corporate governance. Around the same time, we also saw the bursting of the dot.com bubble and a slowdown in world activity.

In the past decades, shocks like this would almost certainly have destabilised UK economic activity and inflation. That, after all, is what happened in the 1970s, when the price of oil quadrupled, and then again in 1979 when it more than doubled. Since the late 90s however, medium-term inflation expectations - both as measured by surveys and as implied by financial asset prices - have barely budged. Even this year, when oil prices rose by over 70% to their peak in late October before falling back, and other producer input prices, including metals, have surged ahead, both surveys and financial asset prices show inflation expectations fluctuating around the MPC's inflation target, within a very narrow range.

This remarkable de-coupling of inflation expectations from economic disturbances is the single most encouraging indicator that the new monetary policy framework is doing its bit to ensure continued economic stability.

The importance of reliable information

In monetary policy as in business, reputations that have taken decades to build can be lost with distressing speed: it only takes one banana skin to turn a confident stroll into a painful tumble. And while monetary policy may be a matter for experts these days, it is very far from being a precise science.

Any honest assessment of the economic outlook comes with very large health warnings. That's why, in its quarterly Inflation Reports the MPC discusses at some length the main economic risks that may knock its central projection off course. These tend to focus on events beyond our control - the state of the world economy for example - or gaps in our understanding of key economic relationships - such as the link between house prices and household spending. The minutes of our policy meetings reflect a lively awareness of the range of possible outcomes which need to be factored into decisions taking.

But few subjects consume more of our time and energy than another, more insidious, source of uncertainty: one with which the MPC does daily battle - the data. As the last Governor liked to remark, "There are three kinds of economists - those who can count and those who can't". The MPC is

emphatically in the first group; we agree with Sherlock Holmes, "It is a capital mistake to theorise before one has data". Indeed, as Lord Peston, Chairman of the House of Lords Select Committee on Economic Affairs, recently observed, referring to our foot high data pack: "Statistics seem to be [the MPCs] life blood".

Why should this be so?

The MPC sets interest rates in response to its assessment of the outlook for economic activity: the key question is whether the level of aggregate demand is above or below the economy's capacity to supply. The difficulty - and it is a fundamental one - is that we cannot observe the true values of many key macroeconomic variables, such as aggregate demand.

Of course, the Office for National Statistics (ONS) produces estimates of such variables. These are derived from comprehensive surveys of firms and households, and provide the most authoritative available guide to macroeconomic developments. But measuring economic activity across the whole of the UK is a hugely complex and difficult task, and 100% accuracy is simply not feasible.

And producing reliable estimates takes time. If the ONS waited two or three years before publishing their first estimates, they would have reasonably complete information. But it would be of rather limited value for policy purposes. We need more timely indicators of economic activity, even though these will tend to be less accurate than later estimates.

That is why the ONS publishes preliminary estimates of key data a few weeks after the month or quarter to which they refer, derived from sub-sets of their overall samples. As time passes, more information is processed and estimates are revised, making them progressively more accurate.

But the fact remains that the data that give the timeliest read on economic activity are also the ones that are measured least accurately. So there is always a risk that the official data will give a misleading view of the current economic situation.

Reading the economy is difficult

And indeed there have been times when economic policy has been led astray by misleading data. For example, in the second half of the 1980s economic policy was founded on the view - indicated by the official data at the time - that the pace of recovery from recession had been relatively modest, and there was considerable spare capacity in the economy.

But a sequence of data revisions proved that view to be wrong. Nigel Lawson, who was Chancellor at the time, recalled that revisions to the trade figures in 1988 made it clear to him that "demand in the economy was pressing against the limits of capacity to a much greater degree than I had previously realised". The GDP figures were also heavily revised. For example, growth in 1986 was initially estimated at 2.4% (in early 1987) - close to economists' view of trend growth. Three years later - in 1990 - this had been revised up to 3.6%. The latest (2004) estimate is that growth was actually 4% - a long way above trend.

As Robin Leigh-Pemberton, then Governor of the Bank of England, said
"we put the brakes on when the speedometer indicated we were doing 60mph. Some time later it was revealed we were doing 55. When the tachograph was opened, however, it revealed that we had actually been doing 70, when the speedometer read 60... more brake pressure was therefore entirely appropriate."

This episode marked a low point for the UK's GDP statistics in recent times. Since then, a number of methodological changes have been introduced, and data sources have been improved. Analysis both by the ONS and the Statistics Commission indicates a dramatic reduction in the average size of revisions over the past fifteen years. Even so, measuring the economy remains a complex task, and data uncertainty is a fact of life.

So what does the MPC do to ensure its judgements are as firmly grounded in reality as possible?

We have a four pronged approach:

- We monitor a very wide range of data
- We pay careful attention to data quality
- We talk to business people around the country

- We are working closely with ONS to transform the quality of official statistics

Monitoring a wide array of indicators

First, we critically review an enormous quantity of data. The MPC regularly monitors more than 1,500 data series, of which around 1,000 are for the UK. The point of doing this is that often there are puzzles and questions about the behaviour of the economy to which no single piece of data can provide a complete answer. But we may build up a convincing picture by piecing together a range of indicators.

The housing market provides a classic example of this approach. There is an enormous array of indicators of housing market activity - data on mortgage approvals and lending, house price indices from the main lenders (the Halifax and the Nationwide), the Office of the Deputy Prime Minister and the Land Registry, and various surveys of estate agents and house builders. One approach would be to pick out a single indicator, and monitor that. But experience shows that none of these indicators individually has consistently given a plausible indication of developments in the housing market; the indicators provide a better guide when taken together. So we monitor a full set of housing market indicators, and we have found that the clearest signals come when all of the indicators are pointing in the same direction. In economic assessment, there is safety in numbers.

Awareness of data quality

But looking at a large array of indicators can be bewildering without some way of narrowing the focus. So the second element of our approach is to recognise explicitly that data vary widely in their quality, and hence in their usefulness for policy assessment. Bank staff grade data series on a number of quality criteria, and we use this grading to make the best use of the available information.

The basic principle is simple: a sensible approach to economic assessment takes a weighted average of all available indicators, where the weight placed on each reflects the quality of that indicator relative to other available data. Generally speaking, in terms of overall accuracy the highest quality data come from the ONS and other national statistical agencies. This is scarcely surprising, since they have a very comprehensive information base. For example, ONS data on manufacturing output are based on surveys of 10,000 of the UK's 160,000 manufacturers. All firms with more than 150 employees are surveyed, supplemented by stratified random sampling of smaller companies.

Some private-sector business organisations - such as the Chartered Institute of Purchasing and Supply, the CBI and the British Chambers of Commerce - also publish surveys of manufacturers. But these samples are typically less than one-tenth of the size of those used by the ONS.

On top of that, the private-sector surveys ask only whether activity has risen or fallen, rather than recording exactly how much activity has changed. This can be a particular problem when sub-sectors of an industry are experiencing dramatic movements in output compared with the rest of the sector. For example, manufacturing output declined quite sharply between 1999 and 2002, driven by sharp falls in ICT output, as the strong growth in business spending on IT through the mid 1990s came to an abrupt halt. But the dip in the manufacturing survey balances in this period was much less pronounced than the ONS's estimated fall in output. This was due in part to the qualitative nature of the surveys, which meant that ICT firms could record only that their output had fallen - and not that it had fallen off a cliff!

In principle then, the ONS data should provide the most accurate guide to developments in UK economic activity. But monetary policy decisions are made every month, and need to be informed by the best assessment of economic activity available at that time. That is why the MPC sets particular store on *timely* economic data - that is, data that are released soon after the period to which they refer.

This is where the business surveys really can add value. For example, the CIPS surveys for the manufacturing and services sectors are released just a few days after the reference month. This is around one month before ONS manufacturing output estimates are available, and around two months before the ONS releases its monthly service sector data. The private sector surveys may be less accurate than the ONS data; but so long as we bear that additional uncertainty in mind, they can be a valuable addition to the MPC's armoury.

In fact, recent work by Bank staff has shown that, even when preliminary ONS estimates are available, combining these with the information from the business surveys can provide a more accurate assessment than if we were to throw the business survey information away and rely solely on the ONS data.

This type of analysis is influencing our judgement at the moment. The ONS's preliminary estimate of GDP growth in the third quarter was just 0.4%, suggesting a marked slowdown in growth driven by a sharp contraction in industrial output. But business surveys suggest that manufacturing output continues to expand. Taking these two pieces of information together, the MPC judges that overall growth was a little higher in Q3 than the official data currently indicate.

We talk to people

A third way of reducing the risk of error is to talk to people on the ground. If the hard data are at odds with what they are telling us, that will give us pause for thought - about the likely economic outlook, or at least the risks around our central view.

Back in the early 90s a familiar charge against the Treasury (which at that time had primary responsibility for setting interest rates) was that they were out of touch - stuck in London, they missed early signs of the recession. The Bank has been careful to avoid this trap. It has built up a network of agencies to act as its eyes and ears around the country.

That regional network has grown out of the Bank's branches that were established in 1826 to deal with problems caused by the failure of local banknote-issuing banks. (The nearest branch to North Wales would have been in Liverpool, and like several of the sixteen branches which the Bank opened at that time it was located on land previously occupied by licensed premises - the old Queen's Arms in Castle Street. Indeed the guiding principle seems to have been "If it works as a pub it will work as a bank". The Licensed Victuallers Association has taken its revenge in recent decades, as old banks have been turned into pubs).

Within the branches, the Bank appointed an Agent to liaise with local industry and commerce, and since 1930 they have been sending regular reports on their economies to Threadneedle Street. During the 1980s and 1990s, most of the branches were closed as different schemes for guaranteeing the supply of bank notes were established. But the Agents remained, and the network was extended to its current line-up of twelve - including a new Welsh Agency located in Cardiff, now run by Adrian Piper.

Between them, the Agents are in regular contact with some 8000 firms. This provides the basis for the Agents' monthly reports and presentations to the MPC; the Committee also commissions special surveys and asks for Agents' help in understanding puzzles in the data. This information is currently published in summary form each quarter, alongside the *Inflation Report*. We are now looking at ways of making it available on a monthly basis, alongside the minutes of the MPC meeting.

MPC members regularly take their own eyes and ears on visits to individual businesses, making around 60 visits to the regions a year. As well as acting as a reality check on economic statistics, talking to businesses around the country improves our understanding of longer-term changes in economic environment. These visits are a good opportunity to discuss issues as varied as the impact of migrant labour on skill shortages; or outsourcing to China; or the growth of buy to let housing; or the changing structure of the retailing sector; or even the impact of weather and public holidays on the pattern of consumer spending.

And in unusual economic circumstances, the Agents' network of contacts can give us information that is not available from any other source. The outbreak of Foot and Mouth Disease in 2001 is a case in point. Our Agents helped us to identify in real time the wider effects on the non agricultural sectors of the economy, notably of course tourism - and that gave us a better picture of the underlying development of the economy.

We support measures to improve the quality of official statistics

Finally, and most important, our longer-term strategy for mitigating data uncertainty is to support the ONS in improving the quality of the national statistics. Bank staff maintain very close links with their ONS counterparts both on a day-to-day basis, and in developing their ambitious modernisation programme.

This was already in hand when the Chancellor of the Exchequer commissioned Chris Allsopp, a former member of the MPC, to assess how well the ONS's provision of statistics matched the needs of policymakers. The Allsopp Report, published earlier this year, has recommended some fundamental changes to the way that key economic data are put together. These concern regional and service sector data; and the ONS's capacity to respond to changes in the structure of the economy.

First, Allsopp recommends that the national statistical system should be reoriented to produce better quality regional data. This is likely to involve, for example, establishing an ONS office in every English region – not dissimilar to the Bank's Agency network. The ONS's main business surveys are also to be expanded to obtain greater regional coverage. For example, the Annual Business Inquiry - a major workhorse of economic statistics, which provides detailed information on, for example, employment, production and investment – is likely to be trebled in size.

Monetary policy operates at the level of the whole economy, and cannot target particular regions or countries of the UK. But to the extent that better measurement and understanding of regional activity leads to improvements in the quality of UK national statistics, as the Allsopp Report expects, this development will improve the information base on which monetary policy is founded.

The second main focus of the Allsopp review is the stark imbalance between the coverage, timeliness and quality of statistics on the services sector relative to those on manufacturing. Suppose you were interested in studying the economic behaviour of the UK textiles industry - which accounts for around one-third of one percent of UK output. The good news is there's plenty of coverage in the national accounts, although you have some decisions to make. Are you interested in clothing, or carpets and rugs? And if clothing, are you interested in knitted and crocheted garments...or work wear...or outerwear?...or indeed underwear? Each of these has its own data set: the array of sub-categories is truly impressive.

However, suppose instead that you were interested in the retail sector, and wanted to know, for example, how much the large supermarket chains have contributed to GDP in recent years, or what inroads they have made into the non-food market. No dice. Although the retail sector nowadays accounts for over 5% of UK output - so it is nearly 20 times the size of the textiles industry - more detailed data are not produced for the UK national accounts.

The need for better service sector statistics goes well beyond any interest we might have in detail for its own sake. In the UK, early estimates of GDP rely heavily on measuring output. Since the service sector accounts for more than 70% of UK output, the quality of early GDP estimates is inextricably linked to the quality of service sector statistics. Over the past ten years, revisions to services output have accounted for more than half of the average revision to GDP growth; and around four-fifths of the variance of GDP revisions can be attributed to revisions to service sector growth.

Indeed, research by Bank staff has indicated that the private-sector business surveys may give a better guide to the ONS's estimate of service sector output growth two years or more after the event than do the ONS's own early estimates. (In contrast, the ONS's early estimates of manufacturing output growth clearly outperform the business surveys as a guide to later estimates.)

The ONS is well aware of this imbalance. In fact, it has been at the forefront of developing and improving measures of service sector output: within the OECD only the UK and Korea produce a monthly Index of Services production, the counterpart to the well-established monthly Index of Production for the industrial sector. The Allsopp Report should give further welcome impetus to this work.

The third focus of the Allsopp Report is the capacity of the ONS to identify and respond to structural change in the economy. The make-up of UK economic activity is constantly changing. Fifty years ago, the manufacturing industry accounted for about one-third of UK output. The service sector made up less than one-half. Today, the corresponding shares are less than 16% for manufacturing, and over 70% for services.

Responding to this sort of change is challenging. ONS needs to be proactive in measuring activity in new sectors, even if it is not straightforward - as it often won't be. For example, bricks-and-mortar retailing is tangible and growing rapidly, but how does it compare with developments in internet sales? People can now make some purchases via mobile phone text message. How can we measure that? Allsopp recommends a greater capacity within the ONS for considering these issues. Improving the quality of macroeconomic data is a first order issue for monetary policy makers. So Bank of England staff will play an active role in supporting these developments.

But it is just as important for the ONS to maintain the quality of its current output during this period of major transition. Again, we will be working closely with the ONS to ensure that the transition is made with minimal impact on day-to-day policy.

How well placed are we to respond to more challenging times?

We live in highly uncertain times. This year rising oil prices and a significant slowdown in the housing market have awoken bad memories of the 1970s and 1980s. The MPC will be doing very well if it can achieve the same stability over the next decade as we have enjoyed over the past ten years. But an important legacy of the past decade is that policy makers enjoy a degree of credibility that would have seemed unimaginable a generation ago. This in itself reduces the risk that sharp shocks to activity or inflation will throw us off course.

But there is no magic about monetary policy: good decisions depend on good information, and this continues to be a challenging area. Much of the MPC's energies go into distilling the message from a battery of often conflicting data. We do not complain about this - it is what we are paid for - but it does complicate the task of explaining our decisions. Improving the quality of national statistics lacks some of the glamour of making the Bank of England independent. But it may be the best single way of ensuring that the MPC continues to respond effectively to challenging times ahead.