

# The Reserve Bank and the Business Cycle

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'Real output...fluctuates around a rising trend' (Solow 1997, p. 230). This seemingly innocuous statement encompasses much of what practical, operational macroeconomics is about: how to raise the trend; and how to reduce fluctuations around this trend.

This talk focuses on what monetary policy might do to reduce fluctuations around the trend. The Governor spoke only a few weeks ago about what monetary policy might do for growth (Macfarlane 1997). In a nutshell, price stability will be generally helpful to long-term growth because it ensures resources are deployed more efficiently, but the main sources of growth are to be found in increases in labour inputs and productivity.

What about monetary policy and the cycle? The starting point is that life would be more comfortable all around if the cyclical swings are not too big and if the bumps in various parts of the economy are not too coincident. It seems likely, too, that however convenient it is analytically to separate trend from

fluctuations, there will be a link between the cycle and either the level of GDP or its trend growth rate. If the severity of the downturns is reduced and the economy operates with a smaller output gap, then the *level* of income over time is, on average, higher. As well, big swings (such as 1982 and 1990) risk hysteresis: the process of winding unemployment down again has proved to be slow and difficult.

Is there anything to be said on the other side of the argument? You will recall the Schumpeterian argument that cycles have some cathartic, cleansing function. I have more faith in competition to ensure that the benefit of technology is introduced as quickly as it should be, and so I do not see a vital need for the Schumpeterian cleansing process. But, in any case, however successful policy may be, enough of a cycle seems likely to remain, in order to ensure the Schumpeterian process has the opportunity to take place.<sup>1</sup>

So let us take as given that it is desirable to have as little cycle as possible, and examine two aspects of this. First, the role of monetary policy in the cycle, and secondly, how the cycle may have changed over time to alter the way monetary policy impinges on the cycle.

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1. To explore the issues raised by Real Business Cycle theory, with its implication that cycles are the result of optimal responses to supply-side shocks, would take us too far afield here. Let me put my biases on the record by agreeing with Solow's comment: 'this explanation has been an empirical failure, or at best a non-success' (Solow 1997, p. 230).

## Characteristics of Monetary Policy

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A thumb-nail sketch of history serves as a reminder that the role of monetary policy in the cycle has been the subject of changing views over the years.

- For the first couple of decades of this century, the gold standard was the undisputed centre-point of monetary policy, anchoring prices. Income smoothing was not an objective of monetary policy. The result – unsurprisingly – was that price *level* stability was maintained (in the sense that there was a longer-term anchor which forced the price level back towards its starting point), but there was considerable variation (both in prices and in output) in the short term.
  - The Depression forced a re-appraisal, but *fiscal policy* became the instrument to smooth the fluctuations in output – monetary policy was seen to be caught in the infamous liquidity trap. This idea has not entirely disappeared, and the notion of ‘pushing on a string’ still has currency.
  - Somewhere in the ensuing decade or two, monetary policy emerged as a countercyclical co-player, on a par with fiscal policy. There was no particular specialised difference between monetary policy and fiscal policy (at least in the eyes of most policy-makers) – inflation control and cyclical smoothing were more-or-less the same task. Inevitably, in time, the attempt was made to squeeze more out of the Phillips curve trade-off than was available.
  - By the 1970s, a clear specialisation had developed (most precisely enunciated in the academic literature, but reflected also in operational monetary policy). The over-use of the Keynesian tools had unanchored price expectations, and the OPEC oil price shock contributed to the reassessment. Most central banks in industrial countries adopted a monetary target, specifically aimed at achieving price stability.
  - The high water of this monetarist view occurred around 1980. Over the next five years, it rapidly lost its pivotal role, because the key relationship in this view-of-the-world broke down – the relationship between money and nominal income turned out to be unstable.<sup>2</sup> With the breakdown of the anchor of a stable money demand function, practitioners were forced to look elsewhere. In our own case, it has taken us, eventually, to an inflation target. But others have put forward the view that monetary policy should *only* care about price stability, without any direct concern with output. The origins of this can be found in Friedman’s monetarism (he was, of course, concerned above all with price stability). It seems only a minor elision to slip from monetarism to a single-objective for monetary policy. But the point to note here is that the old monetary rules had an important element of income smoothing built into them – when output slowed in the course of the cycle, money supply rules produced a more-or-less automatic easing of monetary policy, because the central relationship was between money and *nominal income*. As the stability of the monetary demand relationship broke down, it would have been logical enough to focus on the next link of the causal chain, and replace money by nominal income as the target.
2. There *were* lasting legacies of this period. An important and useful element of the thinking at the time was the replacement of the earlier ‘control theory’ approach to policy (i.e. the belief that the central point was to find an appropriate spot on the Phillips curve and to stay there), towards a ‘game theoretic’ view, in which the critical issues related to behaviour – the interaction between the monetary authorities and the public. In Australia, the Reserve Bank never accepted the degree of policy instrument specialisation found in the academic literature, particularly as wages policy was also addressing inflation control. Partly because most inflation problems were demand driven over the course of the cycle, there was a continuing belief that if the cycle could be smoothed, inflation would be contained, and both fiscal or monetary policy were available instruments in addressing the cycle.

Curiously, however, the *de facto* inheritors of this stream of thought took price stability – the *long-term* element of monetarism – and made it a short-term target. In this view of the world, there was no role at all for monetary policy as a cyclical buffer.

How was this justified? The arguments put forward were:

- the classical dichotomy between prices and activity: money does not affect activity;
- what might be called the ‘Tinbergen proposition’: with one instrument, only one goal can be achieved;
- political economy reasons – usually associated with ‘time inconsistency’ arguments;
- a simple, unambiguous commitment to price stability anchors price expectations most effectively, and this benefit is worth the cost that might come from ignoring activity; and
- the lags in recognition and implementation of policy are so long that activity stabilisation is futile or even counter-productive.

I have looked at these in some detail in an earlier paper (Grenville 1996), so I will be brief here. The classical dichotomy between prices and activity reminds central bankers of their long-term priorities, but even though the long-run Phillips curve may be vertical, the short-run curves are certainly not. The Tinbergen proposition is superficially attractive, but not much help in practical decision-making. Trade-offs between various objectives are common to policy-making (and just about every aspect of life), and these trade-offs have to be handled by a weighing of the conflicting objectives, not by ignoring one of them.

The ‘political economy’ aspects have been prominent in the academic literature, and some very neat models can be built to illustrate the issues of time inconsistency. The models usually involve the ‘monetary authorities’ (no

distinction is made between governments and central banks) making an *ex ante* commitment to price stability, but reneging on this to squeeze higher activity in the short term, in the form of an ‘inflation surprise’ (Kydlund and Prescott 1977). The simple versions of the arguments have never appealed much to central bankers who believe that their own reputation is at stake and who, because of this, are unlikely to exploit the short-term Phillips curve trade-off. To see central bankers as congenitally inclined to administer ‘inflation surprises’ does not seem to capture their true character.<sup>3</sup> If there is a problem here, it seems more likely to lie in the political interaction of policy-making between governments and central banks and it is best addressed by greater independence, not by imposing a single objective on the central bank.

What about the role of a simple single price objective in anchoring price expectations? A decade or so ago, there was a realistic hope that the clear enunciation of a target for prices would stabilise price expectations. It would have to be said that the experience of the last decade would suggest that expectations are to a very large degree backward-looking. Central banks give prominence to their price stability objective in an attempt to influence price expectations in this way, and it seems sensible for them to do so. But it would be a mistake to think that there is a big dividend waiting to be reaped here.

Whether the lags in recognition and implementation are so long as to make the operation of monetary policy perverse in relation to the business cycle is something that can be established only empirically. Like most empirical matters, there is room for considerable difference of opinion. While the lags seem to be (as Friedman promised) ‘long and variable’, a policy which leans against the business cycle with a view to containing demand-driven inflation will generally affect activity beneficially rather than perversely.<sup>4</sup> At the other end of the spectrum is the view that ‘central bank manipulation of financial

3. Blinder (1997, p. 13) describes this as: ‘one place where academic economists have been barking loudly up the wrong tree’.

4. For some econometric support of this view, see Dungey and Pagan (1997, pp. 31–34).

variables has seemingly exaggerated, not smoothed, economic fluctuations' (Makin 1993, p. 12). One problem in this sort of assessment is that we do not know the counterfactual. What we *do* know, however, is that cycles are endemic to all economies. So the counterfactual is not straight-line growth. We know, too, that Australia's cycles are broadly the same as those in other similar countries. In a world where cycles are universal and endemic, it is easy to blame the authorities for the failure of the economy to proceed along a steady path, perfectly aligned with trend growth. As the upswing accelerates, policy is tightened: it is then blamed for being too slow to react. When the inevitable downturn comes, the firm policies that are in place at that time are pronounced 'guilty by association'. The appropriate counterfactual should specify an alternative policy regime, and compare the performance under this rule.<sup>5</sup>

One relevant issue here is: how strong are the 'self-righting' forces which tend to take unemployment back towards its natural rate? If these are strong, the case for an activity component in policy-making is weaker. To put this more specifically, will the in-built stabilising forces operate more quickly than the lags in monetary policy?

The important empirical issue here is the lags in policy, interacting with the uncertainty of forecasts. Most estimates of the lags suggest

that a change in interest rates has its maximum effect on activity after about four to six quarters. This is often popularly interpreted to mean that nothing happens, after the monetary policy lever is pulled, for four or six quarters. Of course, this is quite wrong. Even with these estimates, there is a fair bit of action during the first year, and provided forecasts are sufficiently accurate, it is possible for policy to be effective over shorter lengths of time – for instance, if it was desired to have an effect for the next year only, policy could be reversed some time during the year to achieve rough neutrality beyond the period of a year (Gruen, Romalis and Chandra 1997).<sup>6</sup>

Perhaps a more telling argument is that it is simply not sensible – or even possible – to ignore the cycle, unless a suitable 'neutral' operating rule can be found for setting monetary policy. The monetary aggregates were, in this sense, a 'neutral' rule. They could provide an operating rule for monetary policy which could be relied on to influence activity beneficially in the face of demand shocks: a monetary rule exercises some degree of countercyclical influence, without any overt discretionary action. But with the breakdown of the close relationship between money and nominal income, such a monetary rule is not a satisfactory 'automatic pilot' for policy, and no similarly neutral rule suggests itself. One possible 'neutral' monetary policy would be to leave real interest rates unchanged, but it is

5. Makin's alternative is money-base targeting. The Bank has written extensively on money rules (the widest variety of tests appears in de Brouwer, Ng and Subbaraman (1993)). Makin's model is Switzerland (the only major central bank that has tried to implement a money-base rule) in the 1980s, but this hardly seems a supporting example. Switzerland still has business cycles and experienced inflation of nearly 7 per cent in the late 1980s.
6. I should record, very much in parentheses, my own biases that these lags are consistently over-estimated, and that when we find more subtle techniques of econometric testing, we will find that the lags are shorter. This is based on pure intuitive observation, particularly of the 1994 experience, where the effect of monetary policy seemed to be quite quick. This is a reminder that there are, essentially, two problems with the econometric method used to establish lag lengths. The first is the implicit assumption that the lags are much the same length from episode to episode (occasionally there are tests for changing lag length, as in Gruen, Romalis and Chandra (1997)), whereas it may be that the lag depends very much on the particular episode. Where actors in the economy quickly come to believe that the authorities are determined to slow a speeding economy, it may well be that the lags are quite short. The contrast here is between 1988 (long lags) and 1994 (short). The other problem is the classic one of separately identifying the policy-reaction function and the effect of policy on the economy. Relatively early in the upswing, policy is tightened, but there is no discernible response because the upswing still has a good deal of momentum. In this phase, the econometrics are trying to separate two effects with different signs, and to the extent that these two effects are confounded (because, for example, the equation may not embody a perfect explanation for the non-policy forces operating on activity), this negates or reduces the apparent power of monetary policy in this early phase of the cycle. In this view of the world, the econometrically estimated lag lengths are as much a reflection of the periodicity of the cycle as they are of the lags of monetary policy.

hard to see that, in practice, this would be sustainable in the face of an economy either running abnormally quickly or slowly – there would be continuing questions about whether the real interest rate that had been chosen was neutral or was, in fact, skewed in one direction or the other. Also, such a rule would not tie down the rate of inflation – for this you need a *nominal* rather than a real objective.

Another possibility that can be rejected fairly quickly is the rule of thumb apparently sometimes offered in the face of medical uncertainty: ‘first do no harm’. This may be sensible if medical malpractice suits threaten, but hardly seems a proper basis for economic policy, as it seems to be unduly biased towards inaction.

Equally easy to dismiss are those who suggest that we should do something to control inflation, but say that the lags between policy and activity are so long and uncertain that we should never try to do anything to influence activity. The problem with this suggestion is that if the lags between policy and activity are long, uncertain and variable, then the lags between policy and inflation are longer and more uncertain still. In a world where demand shocks are common and policy operates on inflation largely via activity, it is hard to conceive of an anti-inflation policy which was somehow directed solely at inflation, in the belief that an attempt to direct it at activity will cause more problems than it solves.<sup>7</sup>

Given the long lags in policy, there would seem to be a *prima facie* case for the authorities moving not just pre-emptively, but by large amounts whenever they believe that the cycle is turning. Such a policy has been advocated by Goodhart (1992).<sup>8</sup> Curiously, in the light of these arguments, policy in Australia and just about everywhere seems to do precisely the opposite – it has the characteristic of ‘interest-rate smoothing’. Others in the Bank have written about this recently (Lowe and Ellis 1997), so I can cover this quite briefly. In short, the reasons seem to be:

- Uncertainty. Thirty years ago, Brainard established that, if policy-makers are uncertain about the effect of their policies, they should do less than they think would otherwise be optimal.
- If policy-makers erred by applying too much of the instrument against the cycle, they would surely be severely blamed for it; on the other hand, dampening the cycle without entirely eliminating it is seen as an acceptable outcome. In this world, policy-makers are more likely to lean on the side of caution in exercising their instrument.

In short, the arguments about the difficulties of influencing activity should make central bankers cautious and modest about their role as cyclical stabilisers, but do not excuse them from taking the cycle into account in setting policy, and doing what they can to lop peaks and fill troughs. With inflation down, a consensus among central banks seems to be emerging. Central banks still give very high priority to inflation control (they are, after all, the embodiment of Rogoff’s anti-inflationary central banker), but they do not, generally, focus exclusively on price stability. The arguments are essentially empirical ones, with the focus on the question: ‘how fast can the economy grow while maintaining price stability?’. You will note the Reserve Bank’s rhetoric is precisely along these lines, with policy driven by common-sense and a strenuous effort to understand the cycle, rather than some doctrinal adherence to a simple rule.

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### Has the Cycle Changed (and If So, How)?

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There is much talk, particularly in America, of a New Era in economics – of rapid growth, no cycles and price stability. While something important and beneficial *does* seem to be happening in the United States, we need to

7. For those who prefer a more formal explanation of the same point, see de Brouwer and O’Regan (1997).

8. ‘Central bankers need to brave their innate caution and be prepared to vary nominal interest rates sharply, both up and down’ (Goodhart 1992, p. 333).



separate out what is possible from the wishful thinking. We all hope that productivity is higher than before: this is possible and might add modestly to US long-term growth potential, which has in the past been put at around 2–2½ per cent. We hope that, with price stability well established and various other changes in the economy (on which, more later), the amplitude of cycles might be lessened and policy may be more effective. We hope, also, that prices are well anchored by America's good record of low inflation. But the fundamental law of economics – scarcity – has not been repealed. The factors that are held to be responsible for the New Era – 'globalisation of production, changes in finance, the nature of employment, government policy, emerging markets, and information technology' (Weber 1997, p. 71) – will all be helpful, but they raise the long-term sustainable growth rate only to the extent to which they raise productivity growth on an on-going basis. If the actual rate of growth exceeds the long-term potential, sooner or later pressure comes on resources and inflation will be the result.

The same helpful factors may well apply in Australia:

- If some kind of multiplier/accelerator process is the driving force of the cycle, we know that the type of investment has changed substantially over the years, with large fixed long-term investment becoming less important and short-term investments (such as computers) becoming more important. The old traditional driving force was the inventory cycle. Work done at the Bank (Flood and Lowe 1993) shows a clear change in the cyclical pattern. The average quarterly contribution of inventory investment to GDP(E) has fallen from close to 1 per cent in 1960/61–1971/72 to
- around a quarter of that in 1984/85–1995/96 (with smaller standard deviations as well). This confirms our intuitive observation of the prevalence of 'just in time' inventory systems.<sup>9</sup> What is clear, too, is that service industries (with much more limited stock-holding) have become very much more important.
- As cyclical components of production become less dominant, the cycle may be attenuated. Manufacturing, construction and wholesale trade have been the production sectors most correlated with the overall cycle and these, together, have fallen from nearly 40 per cent of production in 1974/75 to just over 30 per cent in 1995/96. As the economy becomes more complex and varied, correlation between sectors diminishes: the tourism sector may be doing well when house construction is slow.
  - Perhaps the most important on-going change to the cycle is the continuing integration of Australia with the international economy. Thirty years ago, 10 per cent of (real) GDP was exported; now it is almost 25 per cent. When domestic demand rises, there is much greater capacity for this to 'spill' overseas, into imports, than before.
- All this is for others to examine in more detail. The focus here is on just one aspect of the way the cycle might have changed over time – that is, how the interaction between monetary policy and the cycle may have altered.
- First, has financial deregulation changed the interaction between monetary policy and the cycle? This was certainly expected to be one of the impacts of financial deregulation. The Campbell Inquiry talked about it.<sup>10</sup> In the housing sector, for example, the upswing of

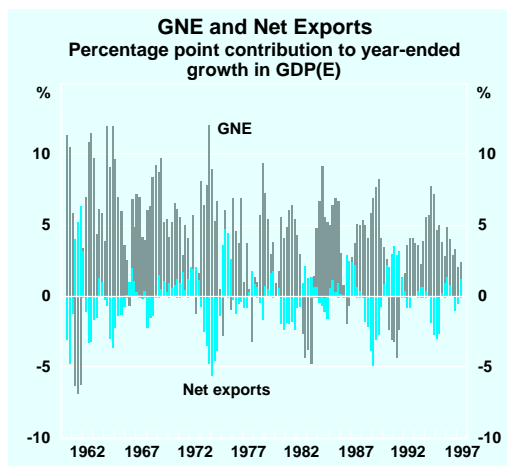
9. Of course, the story has to be more complicated than this, because 'just in time' simply pushes the problem back to a different stage of production, and raises the question that if inventories are not acting as a buffer for production, then perhaps the processes of production become more cyclical.

10. 'The Committee concludes that, in the long run, housing financiers' inflows would be more stable if their interest rates were allowed to move in line with market forces. Coupled with greater overall monetary stability, interest rate decontrol may help appreciably to stabilise housing finance flows, especially as household sector investors have become more interest-rate sensitive. The reduced volatility in funds flows should contribute to a more stable housing sector over the long term. This might result in a slower growth in housing costs' (Australian Financial System Inquiry 1981, p. 639).

the cycle suddenly came up against the restraints of quantitative controls, and this was enough to turn the cycle down. In the old, regulated world, firms and households were not able to borrow enough to smooth their expenditure over time (they were 'liquidity constrained' – see Blundell-Wignall and Bullock (1992)). It may well be that deregulation has removed these old constraints, but at the same time, it seems to have had some tendency to encourage or at least facilitate large or longer swings of the cycle. To put it crudely, financial deregulation provided more rope for the cycle to swing with greater amplitude. It would be easy to exaggerate the importance of this effect, because there were very large swings in the housing sector before deregulation, and asset-price booms and busts occurred even in the regulated world. We might hope, too, that some lessons have been learned from the asset boom of the late 1980s. The conclusion that can be drawn is that those who expected financial deregulation to smooth the cycle by itself have been disappointed.

One specific aspect of deregulation – the floating of the exchange rate – has altered the transmission of monetary policy in a way which should have smoothed the cycle. One of the characteristics of the floating exchange rate is that its movement more-or-less mirrors the course of the cycle, with an appreciation of the exchange rate at those moments when the cycle is running fastest. Partly this reflects the impact of commodity prices on the exchange rate, but it also reflects the policy response of interest rates over the course of the cycle. The result is that demand is more readily 'spilt' into imports during the expansionary phase of the cycle, so production is buffered. (This reinforces the effect of greater international integration, mentioned above.)<sup>11</sup> Even this, however, does not ensure that the new world of the floating exchange rate makes the cycle smoother: it can be argued that in the old fixed-exchange-rate world, policy reacted earlier to stop the

Graph 1

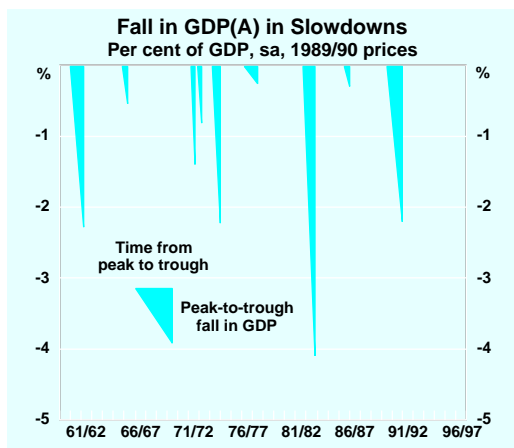


expansionary phase of the cycle, for fear of it spilling over into an unacceptable current account deficit. So, once again, financial deregulation has given the cycle, for better or worse, more room for manoeuvre. The old world of 'stop/start' did not have much to recommend it, but nor did the world of the late 1980s, where an asset boom developed a big head of steam and inevitably was damaging when it came to an end. The floating exchange rate probably allows expansions to last longer, but does not ensure that they end gently.

This history makes us look for a degree of caution in policy-making, aiming for longer, gentler phases in the cycle. There is nothing in the historical patterns of the cycle which suggests that they have a pendulum-like determinacy. On the contrary, the variation in length and amplitude (contrast, for example, 1986 with 1982 or 1990: see also Graph 2) would suggest that the shape of the cycle is not at all regular and pre-determined. While it may be possible to explain cycles in terms of 'a stochastically disturbed difference equation of very low order' (Lucas 1977), the true causes seem less mechanical than this might imply, particularly if the implication is that cycles are unaffected by and unresponsive to policy.

11. Graph 1 shows the combined effect. This effect was noted, in the early 1960s, by Burge Cameron. Has greater integration and a flexible exchange rate made this effect stronger over time? There was a fair bit of exchange rate flexibility in the 1970s, so the proper comparison may need to go back earlier.

Graph 2

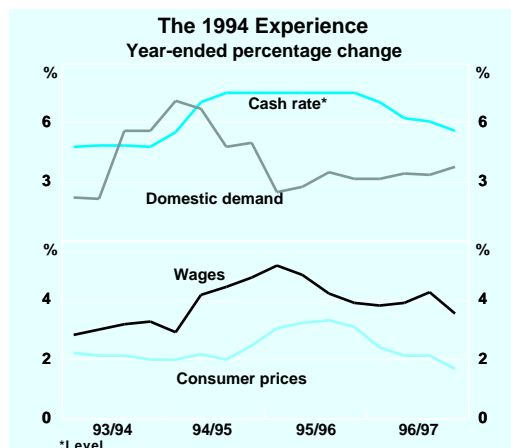


The hope is that the upswing which has been underway since 1991 can go for quite some time yet. This may well require it to travel at a sedate pace at certain stages during the expansion, and we have certainly witnessed this over the past two years or so. But this seems far preferable to an economy which is running clearly too fast and has to be brought to a sudden halt. While it is true that the economy might well have grown a bit faster over the past two years without this igniting inflationary pressures, the one factor that most economists agree on is that monetary policy cannot finetune the cycle. Let me develop this idea by looking in detail at the 1994 experience.

The starting point here was an economy which began to grow too fast, with demand growing at 7 per cent in the year to the September quarter, and excessive wage demands. The Bank judged that this would produce inflationary pressures, and so raised interest rates three times in relatively quick succession in the second half of 1994. As far as we can tell, this was a necessary adjustment of policy, because the classic symptoms of excess demand emerged over the 1994/95 period with wages accelerating (to reach over 5 per cent by the middle of 1995, despite high unemployment, at around 9 per cent) and then, lagged behind this, inflation rising to 3.3 per cent. Given the fragile nature of price expectations and the importance of getting actual inflation back towards 2<sup>1</sup>/<sub>2</sub> per cent

relatively quickly to reinforce the stability of price expectations, the response of policy, even with the benefit of hindsight, seems about right (Graph 3).

Graph 3

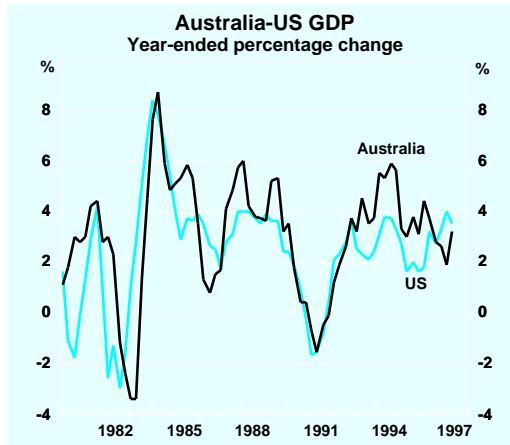


To round off this section, ensuring that you are not left with a false impression about the Bank's (limited) ability to tame the cycle, I present Graph 4. This might suggest that the Australian cycle (at least from the early 1980s until the mid 1990s) has followed the American cycle so closely that any other explanation seems superfluous. To put this point differently, the problem in explaining the cycle is not to find the causes of cyclical behaviour, but to decide – in the face of a wide variety of 'culprits' – which one is, in fact, driving the cycle. In some ways this is like an Agatha Christie detective story, with all the characters equally and obviously suspect. Unlike an Agatha Christie novel, however, it is possible that they all did it, if not simultaneously and in concert, at least more or less coincidentally. The Bank's econometric research certainly gives a very important place to the United States in explaining the Australian cycle (Gruen and Shuetrim 1994) and we have looked at the puzzle of why the United States seems so much more important than its trade share would imply (see de Roos and Russell (1996), de Brouwer and Romalis (1996) and DeBelle and Preston (1995)). But there is still an important role for monetary policy (Gruen and



Shuetrim 1994; Gruen, Romalis and Chandra 1997). The moral is: don't expect monetary policy to be able to eliminate the cycle, but don't ignore its ability to 'top and tail' the fluctuations.

Graph 4



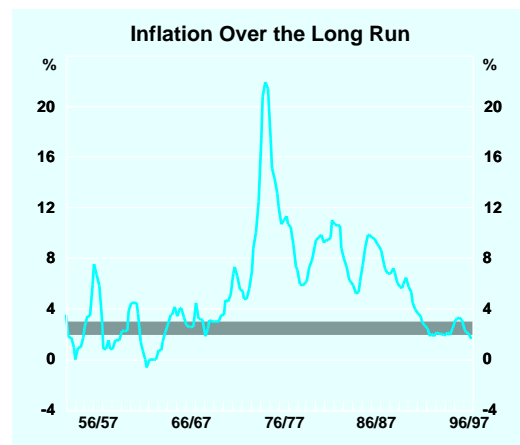
## The Cycle and Prices

The Reserve Bank does expect that its activities will have some beneficial effect on the course of the cycle, but the main focus is on *inflation*. We accept that there will be some movement of inflation over the course of the cycle, but we want to make sure that inflation does not rise over time (now that price stability has been achieved). You can see this sense of priorities – with medium-term price stability being the *sine qua non*, and our acceptance that inflation may vary a little over the course of the cycle – in the specification of the inflation target as being an average ‘over the course of the cycle’. This has caused quite a bit of misinterpretation about the specification. In talking to an audience such as this, I can take the time to set out quite specifically what we have in mind by ‘over the course of the cycle’.

We can go back a bit in history to illustrate the point here. In the 1950s and 1960s (Graph 5), inflation moved about quite a bit

– from more-or-less zero to around 5 per cent per annum – but people look back on this period as ‘price stability’. Why is that so? The critical issue here is that even though inflation rose and fell over the course of the cycle, *price expectations* did not move – even when inflation was running at 5 per cent, the community at large expected it would soon be back to its normal lower pace. Stabilising and maintaining price expectations is the key issue in thinking about the question of ‘over the course of the cycle’. The Bank should not be so trigger happy that it tightens policy at every threat of a price rise (no matter how slight or temporary). There is a trade-off between output stabilisation and price stabilisation (Debelle and Stevens 1995), and an attempt to smooth the path of prices perfectly would make policy destabilising. We want to be on – and stay on – the short-term Phillips curve associated with 2–3 per cent price expectations. We would not be too fretted if actual inflation moves about a bit over the short term, provided *price expectations* do not change (i.e. we stay on this short-run curve). To put this in operational terms, if we have limited price stability credibility, we have to be more careful that inflation does not depart much from 2½ per cent, or depart for too long. As credibility builds over time, monetary policy does not have to respond to every hint of inflation, knowing that the small fluctuations in inflation over the course of the cycle will not have any permanent effects. We

Graph 5



would then, in effect, be back to the world of the 1950s and 1960s, at least as far as price expectations are concerned.

In raising this issue of price movements over the course of the cycle, I should also record that the relationship between activity and prices probably *has* changed quite a bit over recent years. I have written about this in more detail (Grenville 1997), so I will not go into it in detail today. But summarising the argument, there are a number of factors which should make prices less sensitive to the course of the cycle:

- the float of the exchange rate;
- greater international integration;
- greater competition, coming both from international integration and from domestic measures to enhance competition; and
- better linkages between markets, largely via better transport and communication.

All this fits with the earlier discussion of 'New Era economics'. These factors help to prevent inflation being triggered by the expansionary phase of the cycle, and limit the propagation of inflation shocks. While we often think of price stability as being a medium-term and long-term problem, the obvious point is that the medium term is made up of a series of short terms – if short-term hikes in inflation can be avoided, then the problem of maintaining price stability in the medium and long term has been solved. But Chairman Greenspan's warning, in February 1997, about too-ready acceptance of a 'New Era' is still relevant: 'But, regrettably, history is strewn with visions of such "new eras" that, in the end, have proven to be a mirage. In short, history counsels caution' (Greenspan 1997). Price stability still requires good monetary policy supported by an anti-inflation consensus.

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## Conclusion

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Economics has long been known as the dismal science, but in recent years mortality

has become a pre-occupation. Judging by recent book titles, not only is the business cycle dead, but so too are inflation, economics, history and capitalism. Following Greenspan's lead, it would be wise to withhold judgment on the death of the cycle for the moment, or at least borrow Mark Twain's line and say that the reports are greatly exaggerated. Economies still seem vulnerable to alternating 'over optimism... (and) a contrary error of pessimism' as noted by Keynes. Periodic supply-side shocks still seem likely. And policy-makers have not suddenly become omniscient masters of the previously recalcitrant economy. But two factors should help. The first is the greater price resilience, noted in the previous section. Inflation is not dead, but enhanced competition in goods and factor markets inhibits the propagation of price shocks across the economy. Second, low inflation has now become the international norm. The variance over the course of the cycle has also fallen. In Australia, inflation has averaged 2½ per cent annually for the past six years. The last two sharp downturns (1982 and 1990) followed sharp rises in inflation (including asset inflation) in the previous upswing. If excessive optimism in the upswing can be resisted and inflation can be kept in check, there is a good chance that such sharp downturns can be avoided.

Good, forward-looking and far-sighted policy can reduce the amplitude of cycles and lengthen them. The seven-year upswing which started in 1982 (with a 'pause that refreshes' in 1986) should not be regarded as the norm: it can be exceeded. The current upswing has, already, lasted almost as long and seems to have a fair bit of life left in it yet. The price that may have to be paid for these long-lasting upswings is to avoid periods of excessive exuberance – this is what brought the 1980s upswing to a halt. This was the motivation for the 1994 policy response – to avoid the stop/go policies of earlier years. We should, instead, be prepared to allow growth to build momentum over time, without becoming too impatient. This will produce a world of longer expansions, which will not require the extremes of policy-setting which were needed

in the late 1980s (or, for that matter, the early 1980s) to bring that expansion (with its asset-price bubble) back under control.

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