Trend and Cycle in the 1990s: Australia's Current Expansion

Address by Mr GR Stevens, Assistant Governor (Economic), to the Conference on 'Forecasting and Business Cycle Analysis: Frontier Techniques', Melbourne Institute of Applied Economic and Social Research, Melbourne, 15 October 1999.

It is a pleasure to be at this conference on business cycles organised by the Melbourne Institute, which has a well-deserved reputation as a centre of expertise on business-cycle research in Australia. Business cycles have always been with us. They pre-date the rise of attempts at active stabilisation policies in the second half of the twentieth century. They persisted through the heyday of attempts at 'fine-tuning', and they will, I am prepared to assert, persist in the era of the 'new economy', whatever that term may mean. So there is much to be said for studying the processes that initiate and propagate business cycles. Those involved in making macroeconomic policy decisions, and in providing advice to them, need a keen awareness of the history of the business cycle, and of the lessons to be drawn from that history. The Melbourne Institute makes an important contribution to this.

I want today to cover a few issues whose common thread is the business cycle. First, I will talk a little about the evolution of the current business cycle upswing, which is now the longest since the 1960s, and the strength of which has been unexpected in the past two years or so. Why was that, given the Asian crisis and the ensuing global growth slowdown? Second, I want to ask what is different about this cycle compared with others, and how that might be a factor in the expansion's future evolution.

The 1990s Expansion

In dating the major cyclical episodes, I usually resort to using the published data for real GDP as my principal reference series. I am aware that the Melbourne Institute, and particularly Ernst Boehm, has put a lot of effort into more precise dating techniques, based on assessing a range of indicators. For most simple purposes, I find the published GDP series adequate, and I don't think the observations I am about to make hang to any great extent on differences with respect to timing between the two methods.[1] Hence I am going to stick with that simple approach.

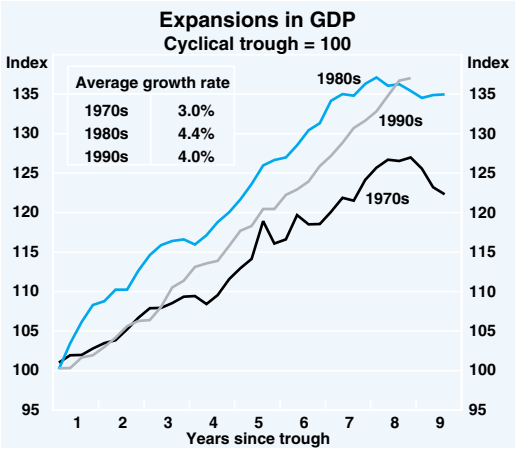
1. For the expansion episodes here, the low points for real GDP, as in the most recent national accounts, were the June quarter 1974, March 1983 and June 1991. In EA Boehm and PM Summers, 'Analysing and Forecasting Business Cycles with the Aid of Economic Indicators', Melbourne Institute Working Paper No. 18/99, cyclical troughs are identified at October 1975, May 1983 and December 1992. It has to be admitted that the 'recession'

The output expansion currently under way began some time around the middle of 1991, after a period of a year or more in which aggregate output had contracted. Growth was initially hesitant, but began to strengthen in the second and third years of the upswing. As of the latest set of national income accounts, the expansion has been running for eight years. The average rate of growth in that time has been 4.0 per cent per annum.

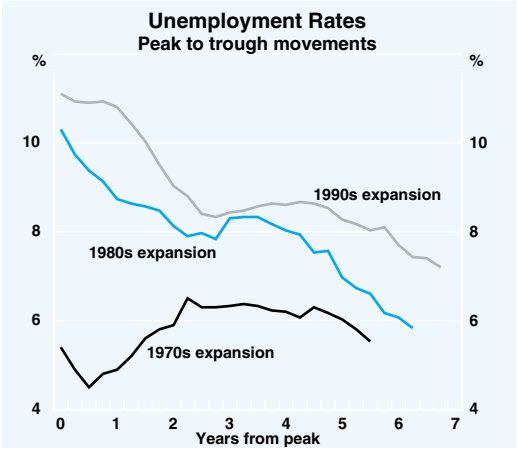
A comparison of these results with those for the two preceding upswings, beginning respectively in mid 1974[2] and mid 1983, suggests that the current upswing, which is clearly continuing, has lasted longer than its predecessors, and of course the average rate of growth is higher than in the 1970s recovery. The 1980s expansion was characterised by faster growth while it lasted, but if we were to compute the average growth rate for the eight years from the low point in GDP, the current expansion would have its nose in front.

Not only has GDP grown at quite a good pace, but the rate of unemployment has fallen, in two phases, by about 4 percentage points, with the prospect that some further reduction is likely in the coming year. Compared with the 1980s, the size of the decline is slightly smaller (at this point), and it has taken longer. It also started from a higher level, so that eight years into the upswing, the unemployment rate has not yet reached its previous low. It is conceivable, however, that within the next year or so, the unemployment rate could be in the neighbourhood of the low points it has reached prior to the last two recessions.

Graph 1



Graph 2



So there is plenty of evidence that the 1990s upswing in economic activity has been strong and long lasting. The quality of that performance has only been remarked upon, however, over the past year or two. The reason is, of course, that contrary to widespread expectation (including mine) that growth would be significantly affected by the Asian crisis, and the ensuing slowdown in world activity, growth has not to this point, declined much at all. That has prompted many to look

in real GDP in the mid 1970s now looks extraordinarily brief – one quarterly decline – and that a good case can be made for treating the recovery as commencing later than I do here. I do ignore here the secondary recession which Boehm and Summers identify in 1977, treating that as more of a mid-cycle pause, like 1986 or 1996. In the case of the early 1990s, Boehm's composite indicator gives weight to the continuing weakness in employment and rising unemployment throughout 1992. It is quite clear that output was rising through that period, and so I am content to stick with the dating given by the GDP data, and to concede that the early phase of the recovery was relatively weak, so not producing any employment growth. Structural changes in staffing levels in many industries may have also been contributing to employment losses. Of course, structural changes were also at work in various other cyclical episodes.

2. Or in late 1975, according to Boehm and Summers.

with fresh eyes at the evidence that had been accumulating for some years that the Australian economy's trend performance was improving. That, in turn, has seen an outbreak of much more favourable commentary about our general economic achievements and prospects than we had been accustomed to hearing in recent decades.

It is now fairly widely accepted that there has been progress in 'reforming' the structure and institutions of the Australian economy that is paying dividends in the form of somewhat higher trend rates of growth than would have been possible otherwise. I will turn to one piece of evidence for that shortly, but before I do, I want to focus on why it was that the Asian crisis and the associated world slowdown does not seem to have derailed the Australian economy in the way many feared it might.

'Escaping' the Asian Crisis

We should be clear in this part of the discussion that it is not true to say that we have escaped the crisis altogether. Some observers have applied the term 'miracle' to Australia's performance, but there is no miracle. Real exports of goods and services rose by about 3 per cent over the two years immediately following the onset of the crisis in mid 1997. This compares with average growth over the preceding ten years of about $7^1/_2$ per cent per annum. Relative to that earlier trend, export levels are down by 10–12 per cent, equivalent to a bit over 2 per cent of GDP. Add to that some decline in the terms of trade, and it is easy to see a loss of income equivalent to somewhere between 2 and 3 per cent of a year's GDP – which is about the size of the rise in the current account deficit. So on the basis of these crude calculations, it is definitely the case that the Asian crisis of 1997, and the associated global slowdown of 1998, has had a substantial impact on the Australian economy, and on the incomes of many Australians.

Overall output growth held up, however, and on the most recent data was running at about 4 per cent over the most recent twelve-month period. This was stronger than most expectations. So it is this to which we turn our attention. How did it turn out that way?

There are a number of elements that make up the answer. A few of them are taken up below.

The economy was well positioned to take on the Asian crisis

It would have been hard to find a more opportune moment to be hit by the Asian crisis than the middle of 1997. The float of the Thai baht, which is often used to date the onset of the crisis, was in early July. Late that same month, the Reserve Bank implemented the fifth in a sequence of reductions in interest rates that had begun about a year earlier. This took cash rates to 5 per cent, almost as low as the levels seen in 1993 when policy was seeking to stimulate an economy recovering from a deep recession. Because of reductions in spreads between borrowing and lending rates, bank loan rates by mid 1997 were already at or below the 1993 lows, and would fall further over the ensuing months.

The basis for that sequence of falling interest rates was, as the statements the Bank released at the time made clear, that an upsurge in inflation had been successfully resisted, and inflation was in the process of falling from slightly above our medium-term target to below it. Hence there was scope for the economy to grow faster. And, as the July 1997 monetary policy media release pointed out, there was little risk of encountering capacity constraints over the ensuing year or two, even if growth turned out to be stronger than expected (which, of course, it ultimately did).

So when the Asian crisis erupted in mid 1997, the Australian economy was experiencing the early phase of a pick-up in domestic demand growth, assisted by quite expansionary monetary policy, which was made possible because of very low inflation and ample spare capacity in the economy. In short, this was quite a fortuitous conjuncture.

Now I should not leave you with the impression that it was pure chance. The reason that the economy was in such a position in mid 1997 was that policy had dealt with a situation of exceptionally strong growth, and a clear threat of higher inflation, in the second half of 1994. This was one of the most important episodes in monetary policy in the past couple of decades. The threat of inflation was met, and the credibility of the policy regime greatly enhanced, so that by mid 1997 the economy was ready for another period of strong growth based on low and steady inflation.

No-one knew in 1994 what circumstances would be in 1997. But appropriate policy action at each point in time is likely to keep the economy in a position where it is best able to cope with whatever shocks come along. This observation extends to all areas of policy, of course. In this sense, good policy makes a little of its own luck.

Strength of the financial markets and intermediaries

The Asian crisis was at heart a banking crisis. It was manifested as a currency crisis at first, but the resemblance to the normal sorts of currency crises we are used to seeing from time to time, brought on by overly expansionary macroeconomic policies and poor government finances, was actually superficial. It makes more sense to see the crisis as a loss of confidence in borrowers, chief among whom were banks in the affected countries. The currency crisis was overlaid because the Asian banks, or some of their customers, had foreign exchange exposures which were not hedged (and perhaps could not have been effectively hedged), and which could not be managed once exchange rates were flexible. In addition, financial markets in many of these countries were not able to keep functioning properly in an environment where financial prices began to move much more than people were used to. They seized up.

Thinking about this in relation to Australia, it is immediately fairly clear that if this sort of financial dislocation was the essence of the initiation of the Asian crisis, then Australia was very unlikely to be part of the crisis directly. The Australian banking system was very strong at the time the crisis broke, and it remains so. Risk management of the kind that was not well practised (or not practised at all) in Asia, was well-entrenched in Australian banks. The difficulties experienced in the early 1990s had encouraged this. The foreign exchange market, with the exception of a few brief periods, functioned well throughout the Asian crisis. The exchange rate depreciated, as markets viewed Australia as likely to suffer because of our trade exposure to Asia, but markets for the most part remained liquid, and there was no sense in which transactions could not be completed. Unlike in Asia, a significant decline in the exchange rate did not undermine the solvency of the Australian corporate sector. So, as has already been pointed out by our Deputy Governor, Steve Grenville,[3] there was no sense in which the Asian crisis was ever likely to result in an Australian financial crisis. Indeed, some have noted that the flight of capital out of Asia benefited Australia both because some capital came here, and because US and global interest rates declined, both of which were advantageous to a capital-importing country such as Australia.

The role of the exchange rate

It has been said that the fact that the exchange rate depreciated assisted the trade sector of the economy to adjust to the external shock. This is obviously true, as far as it goes: a large loss of export income, all other things equal, would normally be expected to lead to a decline in the exchange rate, unless it is very temporary. This in turn promotes some offsetting expansionary impact on the traded sector of the economy. And the fact that the Australian dollar depreciated against the currencies of the major countries obviously made it easier for Australian producers to penetrate markets in north America and Europe, and to survive the fall in international prices for resources. The lower exchange rate

3. 'Financial Crises and Globalisation', Reserve Bank of Australia *Bulletin*, August 1999, pp. 43–54.

also appears to have held down the growth of imports into Australia, even though the price of imported products at the retail level has not really risen, contrary to expectations.[4]

But there is a risk that in emphasising the change that has occurred in the exchange rate, we might miss the more important point. This is that the exchange rate *regime*, more than the exchange rate's movement *per se*, was a big advantage in this episode. Specifically, I mean by this that the floating exchange rate was allowed to do its job, and monetary policy was directed to domestic objectives. This was a big difference from the approach in many countries in Asia where, despite claims prior to the crisis that exchange rates were flexible, the exchange rate was *de facto* the nominal anchor for monetary policy. When monetary policy is driven so strongly by exchange-rate considerations, there will be a difficult decision to make in a situation where the currency comes under speculative attack. I would not pretend that having a floating currency means that there are no difficult decisions or nervous moments – anyone who recalls the 1980s, or even June or August 1998, knows better. But there is at least the potential to run monetary policy in such a way that it does not *amplify* a contractionary external shock of the kind we experienced in 1997 and 1998. That was the approach that was taken in Australia.

The role of monetary policy

That of course brings me to the role of monetary policy in helping the economy adjust to the crisis. Much of this has already been implicit in the comments I have made above. Policy had already reached, for other reasons, a reasonably expansionary setting in 1997 when the crisis struck. As the Asian situation unravelled in the second half of that year, most observers became increasingly alarmed at the potential consequences for the region and Australian trade with the region. Many forecast a marked decline in Australian growth, some even a recession. In several instances this appears to have been on the basis that a widening current account deficit – which was correctly forecast – would 'require' a tightening of monetary policy.

It is a matter of public record that, faced with a substantial decline in the A$ against the major currencies, and on occasion overshooting, the Bank did regard the possibility of higher interest rates as an option, but ultimately not the right one in this instance. The basic reason for that was that the policy-makers were not convinced that the rise in inflation which was expected to occur as a result of the depreciation would cause inflation to exceed our target on a sustained basis. (This was before it was known that the depreciation would lead to very little pick-up in inflation at all.) Hence there was not, in their judgment, a case for a rise in interest rates to 'defend' the currency, on this particular occasion.

It is not often that monetary policy can do the right thing by doing nothing. Certainly central-bankers-in-training have drummed into them that the most serious policy mistakes usually involve waiting too long before implementing a change in interest rates, followed then by unavoidable overkill. But on this occasion, by leaving interest rates alone, policy was able to impart a degree of stability to domestic financial markets. This helped to foster a measure of optimism among businesses and households, which was important given the turmoil around us in the region. The fact that policy was able to take such a role indicates the value of having built up a track record of good inflation performance, in the eyes of the public, the financial markets and other decision-makers.

Other factors

One of the factors pushing growth along appears to have been the wealth gains coming from the AMP demutualisation, gains in the Telstra privatisation and so on. I think most economists understood that this factor would

4. I have puzzled over this apparent contradiction. My suspicion is that it reflects, in part, the competitiveness of the Australian domestic market: importers had to hold prices down to survive in the Australian market, because domestic producers have made such substantial gains in efficiency in recent years that *they* could hold prices down.

probably provide some boost to consumer demand, and by extension so would the general tendency toward appreciating asset prices.

The AMP demutualisation was not rustled up because someone saw that the Asian crisis might dampen growth – it was going to happen anyway. In that sense, it comes under the heading of good fortune. Indeed, perhaps it might be argued that if such an event were going to happen, it was fortuitous that some other elements were at work in holding the economy back a little, otherwise policy-makers may have had more work to do. Be that as it may, the success of the demutualisation process was undoubtedly affected by the general financial climate, which of course had a lot to do with how monetary and fiscal policies were set, not only in Australia but globally. So the various causes and effects overlap with each other – as is usually the case in economics.

To summarise, the Australian economy was not unaffected by the Asian crisis. But it has weathered the storm and the ensuing global growth slowdown fairly well, for several reasons. The external problems hit us at a relatively favourable moment, when growth was set to strengthen for domestic reasons. They did not threaten the functionality of the financial markets and institutions, which had been progressively improved over the years. The exchange rate regime worked well, and policy-makers were able to remain focused on domestic objectives, keeping monetary policy in a relatively expansionary setting. This was appropriate given the starting point we had when the crisis arrived. It was *feasible* because of the flexibility that resulted from a number of years of investing in building a low-inflation track record.

How is this Expansion Different to Others?

I have already compared the aggregate strength and longevity of the upswing in GDP in this expansion to its predecessors. What else might be said by way of comparison?

You would expect the Reserve Bank to nominate the maintenance of low inflation as the standout feature. Let me take that as given, and look at two other features (both of which, in their own ways, are intimately linked to inflation performance). The first is the economy's productivity performance.

Productivity

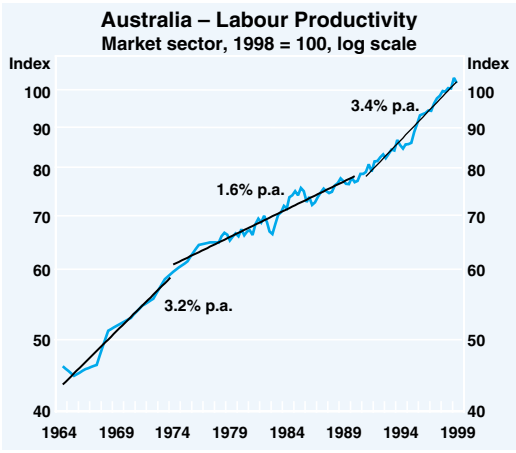
It is well known that productivity in Australia has accelerated in the 1990s, after a rather poor performance from the mid 1970s until the end of the 1980s. This is quite clear on any definition of labour productivity, or using estimates of multi-factor productivity. It is equally striking that, for all the talk of enhanced productivity growth in the United States, the pick-up in productivity growth there has been much harder to see (at least in the data) than in Australia. It is discernible in the US data over the past couple of years, but it has been sufficiently clear in the Australian data for several years that calculations of trend productivity growth in

Table 1: Productivity Growth in Australia
Growth rates, per cent per annum

	1964–1974[a]	1974–1991[b]	1991–1999[c]
GDP			
Per worker	2.5	1.4	2.2
Per hour	2.7	1.9	2.2
Market-sector output			
Per worker	. .	1.6	3.3
Per hour	3.2	1.6	3.4
Multi-factor productivity	1.4	1.0	2.4

(a) Except GDP per hour, September 1966–June 1974.
(b) Except market-sector output per worker, March 1978–June 1991.
(c) Except multi-factor productivity, 1991/92–1997/98.
Sources: ABS Cat. Nos 5204.0, 5206.0, 6203.0 and unpublished ABS data

Graph 3



Graph 4

the 1990s upswing show a doubling of productivity growth compared with the 1980s; in the US, the same calculation shows only a small difference between the two periods. On some estimates, US multi-factor productivity growth might even have declined in the 1990s.[5] Some other scholars have also argued that most, or even all, of the higher productivity growth which can be observed in the US data is due not to the widespread *use* of computers but simply higher productivity in the *manufacture* of computers.[6]

In saying this, I do not mean to belittle the achievements of the US economy. It is harder to achieve productivity enhancements when you are 'at the frontier' already. The point is simply to emphasise that Australian productivity experience, over a whole business cycle upswing, is very encouraging.

It is natural for people to ask whether this means that the economy's long-run growth prospects are permanently improved. The question of Australia's 'potential' rate of growth is highly pertinent to the study of business cycles in the sense that some notion of the 'potential' level of GDP is needed for an assessment of the economy's current position in the cycle. That assessment is also an important input into macro stabilisation policy.

It is useful to be clear what we mean by the term 'potential', and to distinguish between levels and rates of change. Conceptually, we can imagine the level of potential GDP as being a path, a sequence of the levels of aggregate production consistent with neither upward nor downward pressure on the rate of inflation. Because the capital stock and the labour force grow and productivity rises, this path is upward sloping, with that slope giving the potential growth rate in the longer term.

Quantitative estimates of the long-run potential path usually involve either de-trending actual GDP, with various degrees of sophistication, or weighting assumed rates of growth of the capital stock and the labour force, and allowing for productivity growth. In the latter case, the higher rate of labour productivity growth (and, for that matter, capital productivity growth) of recent years suggests, all other things equal, that the long-term potential rate of growth of output is also a bit higher than it used to be. On the other hand, the rate of growth of the labour

5. Dale W Jorgenson and Kevin J Stiroh (1999), 'Information Technology and Growth', *American Economic Review*, 89(2), May, pp. 109–115.
6. Robert J Gordon (1999), 'Has the 'New Economy' Rendered the Productivity Slowdown Obsolete?', June <http://www.econ.nwu.edu>. Such a factor would be unlikely to affect significantly Australian productivity data, because we are not a major producer of computers.

force appears to be lower than in the 1980s, due both to slower underlying population growth and, perhaps, to a change in participation behaviour. This factor acts to reduce potential GDP growth (though lower population growth does not, of course, reduce growth in GDP *per capita*).

It seems reasonably clear that, on average since 1991, actual output growth has been somewhat higher than potential, leading to narrowing of the 'output gap'. Most measures of output gaps derived from de-trending aggregate data suggest this. Direct measures of capacity utilisation from surveys show them to be clearly higher than during periods of recession or even mid-cycle slowdown (like 1996). In the labour market, the unemployment rate (in either its standard form or augmented to take into account underemployment and so on) has fallen considerably since 1992. The various indicator series produced by the Melbourne Institute have mostly seen 'above trend' growth rates during this period. So it is not that difficult to establish in what direction the output gap has been moving over the 1990s. That is what would be expected: in recoveries, we want the economy to take up the slack.

To say that leaves unanswered, however, the question of how much slack remains in the economy: what is the size of the output gap?

Here it is more difficult to make any strong statements. Actual GDP at present is well above its trend level of the past ten or twelve years. This comparison probably understates the economy's spare capacity because, by construction, GDP will be above trend half the time, whereas it seems unlikely (at least to me) that the economy has been producing at above potential half the time since the late 1980s. (The performance of inflation suggests otherwise.) It is conceivable, however, that the economy is presently not too far from some basic notion of its potential output.

Some other filtering techniques might produce a slightly different picture, 'bending the trend' up towards high levels of actual output the longer they persist. This would give weight to the idea that if something has been sustained for a while, perhaps it is sustainable for a while longer, in which case ideas of trend levels and rates of growth would be altered. On the other hand, it could just be a demonstration of the problems these de-trending methods have in dealing with the 'end point' issue.[7]

So it is not possible to be definitive about how much spare capacity remains. That in turn means that assessments of whether the economy might need at some stage to decelerate, and by how much, will inevitably rely heavily on judgment, and on what the incoming data tell us about the relationship between capacity utilisation and changes in inflation.

Graph 5

The extent to which changes to the economy's structure might put off the point at which inflation picks up (so that the measured 'output gap' does not accurately convey susceptibility to inflation) is of course a key question. In the United States this debate has been conducted in the context of the short-run Phillips Curve relating

7. An extensive treatment of output gaps is given in G de Brouwer (1998), 'Estimating Output Gaps', Reserve Bank of Australia Research Discussion Paper No. 9809.

unemployment and wages. Unemployment rates have been below historical estimates of the NAIRU for several years, and this has confounded economists who predicted a rise in inflation on the basis of output gap and NAIRU-type considerations. The reasons why US inflation has not, so far, picked up, have been debated. Some have noted temporary factors like a rising US dollar and unusually intense international competition. Measurement changes in the CPI have helped. Finally, perhaps there *is* a change in the way prices and wages respond to labour market tightness and capacity utilisation etc.

Some of this debate has been echoed in the Australian context, which is not surprising given the productivity performance and the fact that inflation has been lower than expected in recent years. There is a lot more optimism about the prospects for lowering unemployment than there was in the period when it was much higher. That is welcome, though a word of caution is in order. In being optimistic about lower NAIRUs (assuming that remains a useful framework) we need to avoid wishful thinking. I would characterise the central tendency in empirical estimates of NAIRUs from earlier studies as 7 to $7\frac{1}{2}$ per cent. The fact that wages growth has not picked up, and has in fact fallen, as unemployment has declined from over $8\frac{1}{2}$ per cent to the low 7s does not strike me as particularly powerful evidence for the proposition that the NAIRU is lower than it used to be: it is more or less what should have happened, particularly if one allows for lags and some decline in inflation expectations as well. In saying this, I do not deny that the NAIRU may have declined. There are good reasons to suspect so, and of course we all hope so. The point is that we have not really had a strong empirical test yet.

So in assessing the state of the cycle, both to make a forecast and to frame policy advice on the basis of the forecast, we are left with some uncertainties. This is one of the hazards of policy-related analysis and forecasting, which I have talked about previously.[8] I believe that these sorts of considerations require advice on policy to be given with some weight attached to the idea that our understanding of the economy and its cycle is less than complete. Policy-makers have to keep in mind the possible consequences of making a wrong call on the basis of bad forecasts.

There is another point to make, however, which may be of some interest today. Much of this discussion of the business cycle, and the policy issues that are implicit in it, continues to take place within a basic Phillips Curve framework. Economists are comfortable thinking within that framework, in which 'real' quantities – output, employment etc – relate, in an almost physical way, to the relevant prices – wages, output prices and so on. Even the use of terms like 'potential output' and 'capacity utilisation' connotes physical concepts. These ideas have their use. But they seem to give comparatively little role to the financial sector of the economy. It is to some financial features of the current expansion that I now want to turn.

Household balance sheets

A feature of this expansion is the sizeable run-up in household balance sheets. The rise in gross household debt has received considerable attention in the past couple of years, so the key features are well known. In brief, gross debt has risen to the equivalent of just under a year's after-tax income for the average household, from about half that level a decade ago. A good deal of this debt has gone to finance housing. The feasibility of this for households has been based on low nominal interest rates, a development that accompanied low inflation, and has been pushed further by increased competition in the mortgage market. It is nominal rates which matter because mortgage lenders typically require a borrower to pass a repayment-to-income test, and the reduction in nominal interest rates has greatly reduced the front-end loading problem characteristic of the standard mortgage instrument.

8. GR Stevens (1999), 'Economic Forecasting and its Role in Making Monetary Policy', Reserve Bank of Australia *Bulletin*, September, pp. 1–9.

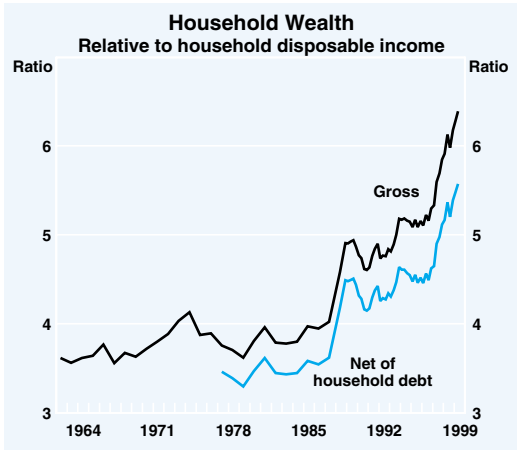
In addition to increased housing debt, households make much more use today of debt for personal consumption purposes. Use of credit cards in particular has increased greatly. To some extent this is probably indicative of a change in the way people make payments, induced by loyalty schemes which offer flyer points and so on for use of particular credit cards. Overall, household debt-to-income ratios in Australia now look much more like those in countries such as the US, the UK and Canada, whereas ten years ago they were quite low by international standards. But even though debt-to-income ratios have almost doubled, debt-servicing costs relative to income are no higher than ten years ago.

The increase in debt clearly has some implications worth considering. An obvious one is that the net-debtor portion of the household sector may be relatively more sensitive to interest rate changes than it used to be. We know relatively little about the distribution of the increase in debt across household types; this is an area worthy of further study.

But while the liabilities side of household balance sheets has received a lot of attention, people have only recently started to focus on the asset side, and to ponder the implications of changes there. Rough estimates compiled by the Bank's staff of gross household wealth suggest that it increased by about 40 per cent over the three years to June 1999. About $700 billion was added to wealth, which stood in June this year at about $2 500 billion. If we were to ask people to guess what forces drove this, I suspect many would immediately assume that share-market gains have been important. Indeed they have, and the share of financial assets in total wealth appears to have been increased a little over those three years. An even bigger role was played by the pick-up in house prices, which have risen quite substantially over that three-year period. The dwelling stock is almost 60 per cent of gross wealth, and has risen in value by $400 billion in the three years, according to our estimates.

These estimates are fairly rough. But give or take a hundred billion dollars or so, it is clear there has been a very substantial lift in real wealth over the past 10 to 12 years, and in the past three or four years in particular. Comparisons with the 1960s and 1970s are difficult to make, because data for some categories are not available. It is also possible that the household sector's holdings of many assets via superannuation funds, life offices and the like for those periods are understated on average, and fluctuations in them dampened, because some data are on a book-value basis. So wealth at that time may really have been somewhat higher, and more variable, than it appears in Graph 6.

Graph 6



Nonetheless, the rise in wealth relative to current income in recent years is striking. If we compute net wealth, by deducting the gross debt data discussed above, we get a similar picture: net wealth is considerably higher relative to current incomes than it apparently used to be.

Australia would not be alone in observing a substantial increase in measured wealth in the past decade. A very similar graph could be drawn for the United States, though the exact numbers and contributions of various components might be a bit different. More generally, a trend towards liberalised financial systems would be expected to result in some growth in financial balance sheets (though a good deal of the growth is not just in financial assets in Australia's case). So it is not clear

that we should necessarily expect any strong tendency to mean reversion in the ratio of wealth to income.

The rise in the size of balance sheets may, nonetheless, have some quite important implications. One possibility is surely that the role of the financial sector in propagating shocks through the economy, and perhaps in initiating them, may be more important than we have been accustomed to seeing in the past. We can all recall that corporate and financial sector balance sheet developments were an important element in driving the latter phases of the 1980s upswing and the ensuing recession. But up to now, we have not usually seen swings in household balance sheets and wealth as important drivers of the economy. The figures suggest that they could be much more important in the future.

We may have seen some hint of this in the way consumption spending ran ahead of income growth over recent years – at least as recorded in the national income accounts in their present incarnation – despite the fact that the recorded saving rate was very low by historical standards. Wealth gains appear to have been substantial. With a liberalised, innovative financial system, more of the wealth owned by households is accessible these days, via flexible financial instruments, than it used to be. So wealth gains – or losses – which are seen as being persistent, may be more fully reflected in changes in current spending behaviour than we might have been accustomed to seeing in the past.

This is perhaps a rather dull message to a conference on 'leading edge' techniques for forecasting the business cycle. No doubt there are plenty of other issues that are attracting your interest today. But my conjecture is that these financial considerations may have quite important implications for the study of business cycles and for macroeconomic policy.

When I started work as an economist in 1980, we used to analyse the financial part of the economy very much in terms of monetary quantities. The 'money supply' (always a sloppy description) was often treated as a sort of 'summary measure' for monetary policy and the whole financial sector of the economy. We know that this was ultimately unsatisfactory, and I have no desire to return to that approach. But I would suggest that changes in financial flows and in the value of financial stocks need to be brought more fully (back) into our thinking about the dynamics of the business cycle. This poses challenges for students of business cycles and policy-makers alike.