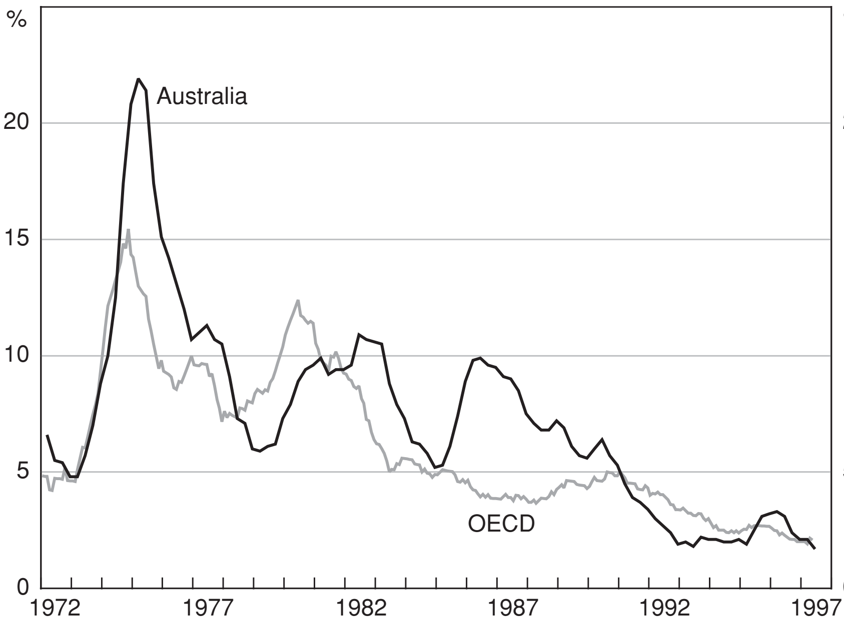
The Evolution of Monetary Policy: From Money Targets to Inflation Targets

Stephen Grenville*

1. Introduction

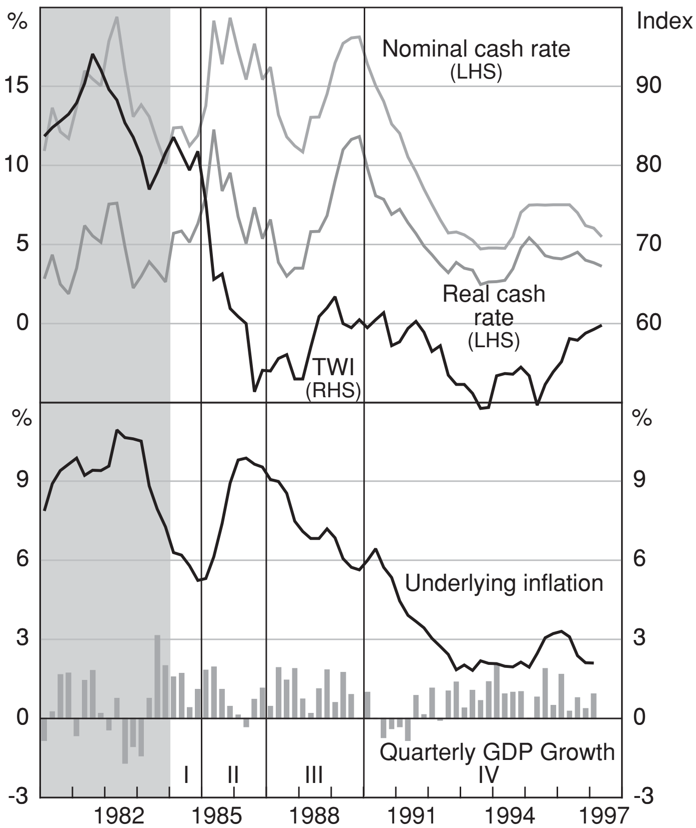
This paper sets out a chronology of Australian monetary policy during the past decade or so. The events themselves are often important, but the main focus here is on the evolution of the monetary-policy framework. Australia began the 1980s with monetary policy based on money targeting, and by the early 1990s this had been replaced by an alternative framework – inflation targeting. This transition took time and reflected a response to the changing set of problems, to the evolving perceptions of the way the economy works, and to the constraints on policy – mainly in the form of conflicting objectives that legitimately were required to be taken into account. The policy framework was influenced by the academic literature, but the academic debate on monetary policy has not run parallel with the problems faced by practitioners, and has provided few relevant answers for them. Having a well-articulated monetary framework was not enough, in itself, to ensure price stability. While most OECD countries achieved price

Figure 1: Australian and OECD Inflation



* Troy Swann and Amanda Thornton helped greatly in the preparation of this paper. Other RBA colleagues gave valuable comments.

Figure 2: Monetary Indicators, 1980–97



Note: The real interest rate is the nominal interest rate less the underlying inflation rate. Prior to 1984, the interest rate is the 90-day bank bill rate.

stability by the mid 1980s, it eluded Australia during the monetary-targeting phase – and for the rest of the 1980s. Late in the decade, the costs of inflation became increasingly apparent, and policy was set with a view to winding it back. Inflation was well contained during the period of rapid growth in 1989/90. But it was not until 1990 that Australia had the combination of commitment, understanding and cyclical circumstances to bring about a structural reduction in inflation.

As we trace through the evolving policy framework, the issues can be brought into sharper focus if the framework, in each episode, is evaluated against a set of common characteristics or criteria:

- While discretion in policy-making would seem to be desirable to cope with the complexities and unknowns of the economy and the variety of shocks which hit it, many countries constrain policy-makers' flexibility by imposing rules. There is a perceived need to discipline the policy-makers, to offset their inflationary biases: rules, so the argument goes, force the authorities to make better decisions. As well, a rules-based framework, backed up by accountability, lets the public know how the authorities will behave, giving the public confidence about the future path of prices: the economy, it is argued, works better with rules. Where did the Bank stand on the 'rules versus discretion' spectrum? What were the 'rules' which constrained and guided the Bank's behaviour? Was there a defined final objective or objectives, against which the outcomes should be judged? Was there an intermediate target and/or an operating rule which guided day-by-day decisions and which allowed the public to continuously monitor the authorities' performance? Who set the rule – the Bank or the Government?

- Second, how did the Bank view the *transmission* of monetary policy? How did the Bank think the economy worked?
- Third, the policy *context*. What was the place of the Bank and monetary policy in the overall macro-policy scheme? Was monetary policy constrained by other policies (or deficiencies in other policy areas), or seen as a 'stand-alone' instrument? Was the Bank free to pursue its objectives (was it independent)?

2. Phase One: 1984 – The End of Monetary Targets

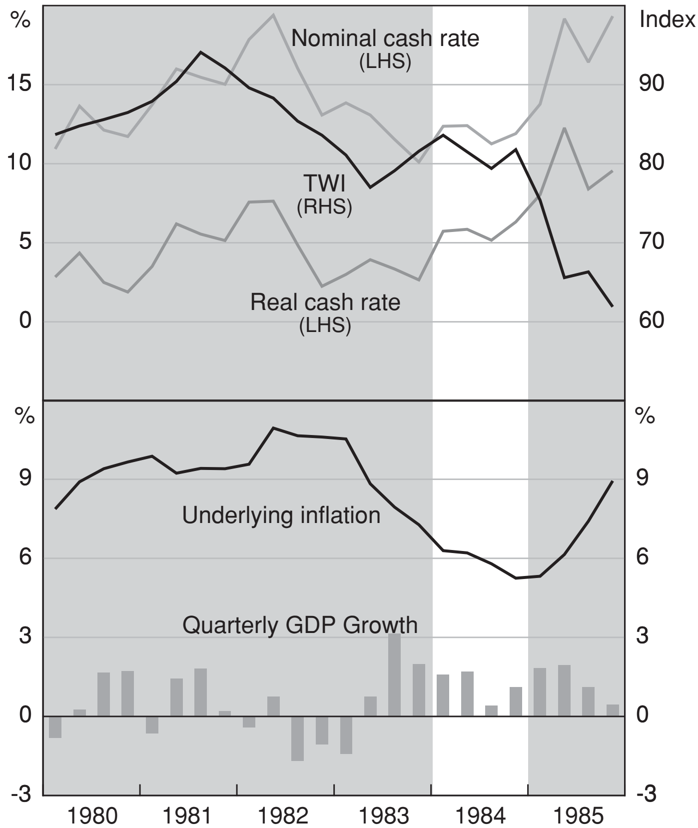
In explaining the evolution of policy, there is always a temptation to go back a little further in history to explain a particular event in terms of its antecedents. This account breaks into the time continuum in the last year of the monetary-targeting phase (which, for Australia, began in 1976 and ended in February 1985). This provides a useful starting point, because the lessons of this phase affected the subsequent period.

Among the industrial countries, pragmatic monetarism was, almost universally, the basis of monetary policy at this time (Goodhart 1989, p. 295). The widespread acceptance of the monetarist framework was a reaction to the perceived failures of the earlier Keynesian approaches. Policy-makers turned to a framework which seemed tailor-made for the problem of price stability. Goodhart (1989) records eight countries as adopting the monetarist framework (see also Argy, Brennan and Stevens 1989).

The characteristics of the monetarist approach in its rigorous form fit neatly into the three-fold classification suggested above:

- In terms of *rules*, money was an intermediate target, but the ultimate target was inflation. While the theoretical apparatus, built around a stable money-demand function, might have suggested that the ultimate target would be nominal income, monetarism came to be associated with the idea that monetary policy should have one single objective – price stability. Abhorrence of inflation was not an essential element of the monetarist framework, but in practice was an important part of the rhetoric. This framework seemed to provide very clear *operational* guidance for day-to-day policy-making – the policy-makers' task was to ensure that the chosen money aggregate remained on its pre-determined track. While ideas of *time inconsistency* had not entered the general debate at this stage, Milton Friedman had a more intuitive view of the pernicious interaction of politics and discretionary policies. One of the most useful (and enduring) contributions of monetarism was to emphasise that monetary policy was more about the *behaviour* of the authorities, rather than about how the economy worked.

Figure 3: Monetary Indicators – Phase One



- While the *transmission* process was not explicit, money was assumed to affect prices quite directly without much effect on activity (the 'classical dichotomy'). There were 'long and variable lags': hence, finetuning the cycle was seen as futile or counterproductive. In any case, the economy was seen to have well-developed self-equilibrating forces which would iron out business cycles reasonably quickly. *Price expectations* were the driving force in the persistence of inflation.
- On *context*, monetary policy had no linkages or synergy with other policies. It was the specialised instrument for achieving price stability, and it should be assigned this 'stand-alone' role. This contrasted with the less rigorously specified Keynesian framework which had the simple notion that excess demand (whether caused by the budget, excess money growth or some non-policy shock) would put pressure on capacity and cause inflation.

This was the rigorous textbook version: the Reserve Bank of Australia's brand of monetarism was rather different – pragmatic rather than doctrinal.[1] It can be characterised in the following way.

1. As Corden (1989, p. 160) notes: 'Contrary to images created during the stabilisation period, Australian policy was not really monetarist in any true sense of the term… There was no suggestion that the projections imposed a constraint on policies'. Others saw money in a more central role in policy, and judged the outcome *solely* in terms of whether the monetary target was achieved (Sieper and Wells 1991).

The rule. The M3 target (more correctly, a 'conditional projection') was set down, in the Budget, by the Treasurer (not the Bank). In addition to the money target, the Bank was still bound by the specific objectives set out in the Act – price stability and employment. The Labor Government which came to power in 1983 specifically renounced monetarism in its rigorous form.[2] This was, in large part, because they saw wages policy as the principal means of achieving price stability. M3 was an intermediate target, with some mix of real output and prices as the final objective, implicitly set so as to be consistent with the wages/incomes outcome ('maximise non-inflationary growth'). The Bank certainly did not see the money target as providing day-by-day operational guidance for policy. In the newly evolved operational procedures, monetary policy was implemented via the cash rate (Macfarlane 1984). This, not a money aggregate, was the operational focus, as it was in virtually every country with a monetary target. To the extent that price expectations were part of the thinking at the time, they were anchored more by the Accord than by the money target.

Transmission. While textbook monetarism saw a direct transmission of monetary policy from money to prices and there were individuals in both the Reserve Bank and Treasury who were firm adherents to the rigorous monetarist viewpoint, Australian policy-makers in general retained their Keynesian view of transmission: inflation depended largely on the state of demand.

Policy context. With the election of the Labor Government in 1983, it was quite explicit that monetary policy was seen as closely integrated with other macro-policy 'arms' – wages policy and fiscal policy. The Bank accepted this: the *Annual Report* (1983, p. 8) noted: 'Because it should entail a lower cost in terms of unemployment, income restraint achieved through processes of consultation is much to be preferred to restraint enforced through tough monetary and other policies'. This period began with a clear perception that real wages were too high. Getting *real* wages down was the task of the Wages Pause (introduced in 1982 – the last year of the Fraser Government) and, subsequently, the Accord. With wages set in this way, monetary policy was constrained: to achieve greater-than-expected success on inflation would actually *worsen* the structural real-wage problem. So monetary policy was set to support wages policy, accommodating a reasonable growth in nominal income.[3]

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2. The flavour is captured by this quote from the first Accord: 'Many countries, including Australia, adopted monetarist policies, on the assumption that they would gradually bring inflation down to low levels, thus breaking inflationary expectations, and enabling a non-inflationary expansion of the economy to then occur. In practice, monetarism proved disastrous… It is with this experience in mind that a mutually-agreed policy on prices and incomes (has been developed)…to enable Australia to experience prolonged high rates of economic and employment growth, without incurring the circumscribing penalty of high inflation, by providing for resolution of conflicting income claims at lower levels of inflation than otherwise would be the case. With inflation control being achieved in this way, budgetary and monetary policies may be responsibly set to promote economic and employment growth, thus enabling unemployment to be reduced and living standards to rise' (ACTU Statement of Accord, February 1983, pp. 1–2).

3. It could be argued that monetary policy *always* faces the same dilemma in reducing inflation: because of sticky wages, it will take some time for markets (especially the labour market) to adjust prices for the new low-inflation policy setting, and in the meantime output suffers. A centralised system, however, can greatly exacerbate this problem. 'To the extent that the Accord has put a narrow band around nominal wage increases, it has flattened the trade-off between output and inflation available to other policies… The rigidity of wages simply means that the deviation of price inflation from wage inflation would carry with

The exchange-rate float of December 1983 provided, for the first time, the technical capacity to enforce the target. But the same institutional changes which made this *possible* also brought into question whether it was *desirable*.[4] The Bank's *Annual Report* of 1984 talks of the new opportunities to control the money supply, but also notes the constraints in doing this. If the general course of inflation and economic activity seemed broadly appropriate, the Bank's non-doctrinal adherence to monetarism made it reluctant to cease observing the economy as it saw it outside the window, and rely solely on the 'blind-flying' instruments of monetary growth. With this fuzzy rule in place, it provided no basis for policy discipline, for accountability, or as an anchor for price expectations.

As it turned out, 1984 was a relatively good year for the economy, with strong recovery coming out of the recession of 1982, but with inflation falling quite sharply, so that by the end of the year it was running at 5 per cent (down from a peak of 12 per cent). Given the wage restraint of the time, there were prospects of it falling further. These were hardly the circumstances in which the authorities were going to tighten policy enough to achieve the monetary target. By February 1985, it was clear that the monetary target would be substantially exceeded, and the target was 'suspended'.

Such a breakdown of the relationship between nominal income and money might have been anticipated: it was certainly not difficult to explain after the event. While some of the discussion was in terms of measurement problems and 'disintermediation', the real problem was much deeper. Regulation had led to 'financial repression', and as people had the opportunity to borrow more, they did so. Australia entered a period – beginning late in 1983 and lasting for about five years – when credit grew on average by more than 20 per cent per year (i.e. much faster than nominal income). With the benefit of hindsight, this was not a sign that monetary policy was loose; it was a sign of the breakdown of the velocity relationship.[5]

The question, in judging policy of the period against current perceptions of the central bank's role, is whether more rigorous implementation of monetarism would have achieved a better outcome on inflation without unacceptable high costs in terms of lost economic output. What explains the difference between Australia's readiness to miss –

it substantial real effects on output and employment' (Carmichael 1990a, p. 4). It might have been possible to devise an Accord which explicitly targeted both real and nominal wages, and set these to achieve price stability. Starting with a real-wage overhang, however, it would have been difficult to achieve simultaneous agreement for a winding back of real wages *and* nominal unit labour costs. The greatest progress in reducing real wages was made, in practice, in those periods when inflation was higher than expected. Later, the Accord helped to contain the wage impact of strong demand in the late 1980s, but it also built further rigidity into the wage/price nexus, as it coped with immediate wage demands by pushing them into the future, creating the 'wages pipeline', which put a floor under wages extending out a year or more.

4. The Governor was to note: 'virtually all the instruments, and the power to use them flexibly, which my predecessors sighed for, are now available to the central bank' (Johnston 1985b, p. 3).

5. It was not until later that the full degree of the breakdown in the money-demand functions was apparent, because continual re-estimation and redefinition could keep the money-demand equations in some degree of stability *ex post*. 'It was an era when econometric studies of demand for money functions multiplied like rabbits. Rarely have so many equations been claimed to have stable and satisfactory properties one moment and have collapsed the next' (Goodhart 1992, p. 314). The RBA Conference of 1989 set the seal, for Australia, against the idea that money demand could be the basis of monetary policy. But, in practice, it had been abandoned three years earlier. The Bank came to see money as endogenous, with nominal income causing money to increase, rather than *vice versa* (Carmichael 1990a, p. 12).

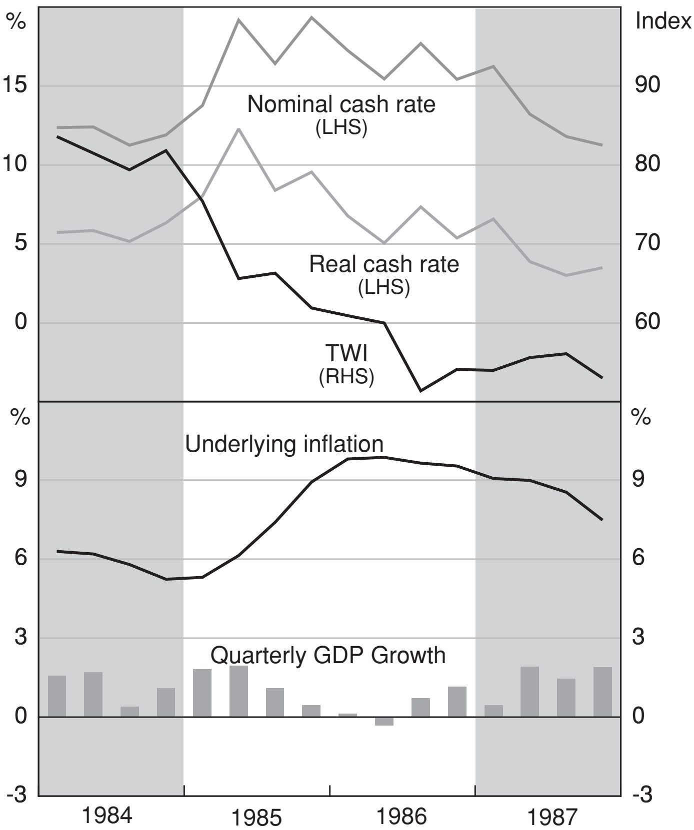
and then abandon – its monetary targets, while in the United States the short-lived monetarist period saw the definitive re-establishment of price stability during the 'Volcker deflation' of 1979–82? Much of the answer lies in the perceived urgency of the inflationary problem. American inflation had reached an annualised rate of more than 15 per cent, and inflation was recorded as a major concern in public opinion surveys of this time (Fischer 1996, p. 24). In Australia, inflation, which had reached nearly 20 per cent in 1975, reached 12 per cent in its second peak in 1982 and by 1984 it was moderate and seemed likely to fall further. Its solution was, in any case, seen to lie largely with wages policy. The American authorities probably had no more faith than their Australian counterparts in the ability of rigorously applied monetarism to achieve price stability at a low cost to economic activity, but monetarism provided the framework (Blinder described it as a 'heat shield') to implement policies which would otherwise have been unacceptably restrictive. As Goodhart (1989, p. 296) said: 'The policies adopted in the early 1980s allowed the authorities freedom to raise interest rates to levels that did subdue inflation, and the accompanying check to output growth, though severe, was indeed temporary. Certainly, the credibility (of Volcker and the Fed) was probably based more on their demonstrated willingness to accept a painfully high level of (real) interest rates and a sharp downturn in output, rather than on the achievement of a particular monetary target… Central bankers appreciated the function of a monetary target in providing them with 'a place to stand' in warding off calls for a premature easing of policy'. Australia at the time had no such determination to return to low inflation, nor to allow interest rates to remain at the high levels experienced in the United States (and, much more briefly, in Australia). If Australia had not experienced the large exchange-rate fall of 1985 and 1986, it is quite possible that inflation would have fallen significantly below the 5 per cent recorded in 1984, and price stability might have been established. If it had, the cost (in terms of lost output) would have looked quite favourable, compared with the Volcker deflation. But this is hypothetical. The combination of circumstances needed for price stability did not recur for a further five years.

By the time Australia 'suspended' monetary targets in February 1985, many other countries had abandoned or downgraded them. 'By the latter part of the 1980s the technical elements (of monetary targets) were deemed by the generality of policy-makers to have comprehensively failed' (Goodhart 1989, p. 296). The main reason was, as in Australia, a breakdown of the relationship between money and nominal income. As Governor Bouey of the Bank of Canada said: 'We didn't abandon monetary targets, they abandoned us'.

3. Phase Two: 1985 and 1986 – *Ad hoc* Policy 'Holding the Line'

The over-riding impression, looking back on this period, is of monetary policy being used as a stop-gap measure to buy time while other policies were put in place to handle the more deep-seated problems which had emerged and which were not amenable to monetary-policy actions. The *Annual Report* (1987, p. 12) put it this way:'Monetary management through the domestic and foreign exchange markets sought to provide a generally stable financial environment while policies of more fundamental adjustment took hold'. With the Accord process working, over time, to reduce real wages and the

Figure 4: Monetary Indicators – Phase Two



budget gradually shifting from deficit to surplus, it was left to monetary policy to cope with the cycle and whatever other macro problems came along. The most pressing macro issue was the external problem – the large current account deficit – which put major downward pressure on the exchange rate (and thus upward pressure on inflation). Monetary policy could not fix the basic problem (the savings/investment imbalance), but had to respond to the symptom – inflation.

This period can be put within the three-fold classification quite briefly:

- There was no explicit rule (other than the on-going guidance of the Act), and the degree of discretion was high. The objective was described as 'to achieve non-inflationary growth' (Johnston 1985a, p. 810).
- The transmission channels still had inflation as an outcome of excessive demand. The new element in this period was the overwhelming importance of the exchange rate in determining inflation.
- Monetary policy was fully integrated into the overall policy-making framework, without a clear independent role.

With the sudden ending of monetary targeting in February 1985, there was little or no formal framework to guide monetary policy. The first priority was to put in place *some* alternative. The resulting 'check-list' was an *ad hoc* mixture of intermediate objectives, final objectives and objectives that did not directly belong in a monetary framework. The check-list was described in Johnston (1985a, p. 812): 'The relevant indicators include all the monetary aggregates; interest rates; the exchange rate; the external accounts; the current performance and outlook for the economy, including movements in asset prices, inflation, the outlook for inflation and market expectations about inflation'. This check-list might be seen as a step backwards, as it was moving from a nominal rule to a framework where a wide degree of discretion was, at least in theory, available.[6] But the rule had broken down, and in the absence of any obvious alternative rule, 'look at everything' seemed sensible.[7, 8] Other central banks which had abandoned monetary targets in much the same period also found themselves searching for an appropriate target, and few succeeded in finding an alternative, at least in this period.[9] 'We do not live in a world in which one can confidently rely on market forces to restore the economy to a stable unique equilibrium, so long as the authorities themselves do not rock the boat. In this context, the authorities have reverted to discretionary intervention' (Goodhart 1989, p. 335).

6. Goodhart (1989, p. 334) described it this way: 'Supporters would describe it as sensible pragmatism; detractors as a reversion to a muddled discretion which, once again, allows the authorities more rope than is good for them, or us'.

7. The *Annual Report* (1987, p. 7) said: 'Theoretical debates about the setting of monetary policy have been overborne in Australia as elsewhere by the pressure of events stemming, for the most part, from financial deregulation and imbalances in international payments… One consequence is that norms for monetary growth, which hitherto had served as intermediate objectives for policy, have been progressively discarded in many countries. In their place there is now routine reference to a wide range of financial and non-financial indicators to be weighed and judged in determining the appropriate direction for monetary policy and the intensity with which it is to be applied; in short, considerable pragmatism'. For an example of the Bank searching for a balance between discretion and rules, see Jonson (1987). Having observed that different types of shocks require different responses, Jonson (1987, p. 12) observed: 'The monetary authorities should have the freedom to choose among the various possible responses to specific circumstances. That is what I mean by discretion'.

8. Perhaps less defensible is the Bank's reluctance to admit its control over short-term interest rates, for example: 'Although interest rates should not be targeted, short-term interest rates could be used as one important indicator of the stance of policy' (RBA 1985, p. 3). 'That does not mean we have an interest-rate objective. Changes in interest rates are important indicators of the change in financial conditions' (Phillips 1985, p. 12). 'I would, however, like to deal with an assertion that the Bank is "interest-rate targeting". This is not so. The Bank's day-to-day actions are in terms of quantities and are designed to affect quantities at the end of the transmission chain. Of course, interest rates are a vital element in the transmission mechanism but are not the policy objective' (Johnston 1985a, p. 810). No doubt the thinking was that, if the Bank admitted to being able to influence interest rates, then it would come under pressure to move them to settings which it considered inappropriate. This might be defensible enough in terms of political economy, but did nothing for transparency of policy. In relation to the reductions in interest rates in the early part of 1986, the Governor noted that: 'Monetary policy has acquiesced in interest-rate falls, rather than trying to lead the market' (Johnston 1986b, p. 3).

9. As an example: 'In the eyes of many economists, the Federal Reserve System has been steering without a rudder ever since it effectively abandoned its commitment to monetary growth targets in 1982. The visible success of monetary policy during the past half-decade is therefore all the more puzzling' (Friedman 1988, p. 52).

A more practical defence of the policy of the time would note that, conceptually flawed as the approach was, a more precisely defined monetary-policy framework would have reacted to the events in much the same way. The problems were so pressing, and the threat to price stability so clear, that the broad response of policy was obvious. Beginning in February 1985 (i.e. almost immediately after the ending of monetary targets), the exchange rate fell by 35 per cent over the next 18 months: it coincided with a terms-of-trade decline and an increase in the current account deficit. With hindsight, this looks like a structural adjustment of the exchange rate, which has been more-or-less maintained over the ensuing 10 years. In this world, the best policy was to accept the first-round impact on inflation, and to attempt to prevent second-round effects. This was done, including some wage discounting in the Accord process.[10]

The exchange-rate fall was symptomatic of growing concerns (especially in financial markets) about the current account deficit – which reached 6 per cent of GDP (for the second time in five years), compared with a traditional 2–3 per cent of GDP in earlier decades. The Bank saw this in terms of the Twin Deficits analysis – the current account deficit reflected a savings/investment imbalance, and the answer was to improve domestic saving by shifting the budget towards surplus.[11] While this adjustment was occurring, policy needed to hold the line to minimise the impact of the current account on the exchange rate, with its inflationary consequences.

Exchange-rate weakness was the preoccupation of policy between February 1985 and around September or October 1986.[12] Interest rates reached their decade high in November 1985 (higher than they were to go in 1989). While the exchange rate was the focus of monetary policy, interest rates were not set as they would have been in a fixed exchange-rate regime – to defend a specific exchange-rate level, with the full impact of this defence being reflected in the money supply. The foreign-exchange intervention was always ‘sterilised’. Whatever movements there were in interest rates (and these were almost unprecedented) were a conscious choice of policy, not the incidental result of some change in base money. Even though the exchange rate was a preoccupation of this time, it was not seen as an active instrument to be used in reducing inflation, particularly as a lower exchange rate was seen as an important element in improving the external position. Visiting Brookings economists (in 1984) captured the thinking of the time: ‘We believe it is unwise to allow the exchange rate too much independence in a small open economy. Real depreciation is inflationary and real appreciation…should be banned on the grounds of its effects on unemployment’ (Caves and Krause 1984, p. 73).

10. The attempt to contain the impact to its first-round effects was only modestly successful. Using current (1997) equations, we can judge that, even excluding the first-round effects, inflation rose in 1985 and 1986. Analysis at the time, however, expected a larger, quicker pass-through (and was therefore readier to accept the rise in inflation in 1986) and expected a sharper falling away in inflation in 1987.

11. The *Annual Report* (1986, p. 7) noted: ‘With other policies unable to respond quickly…monetary policy was tightened substantially. This step had elements of a holding action… The more deep-seated they appeared, the more obvious it became that responses need to be found beyond monetary policy… The period of adjustment appears likely to be longer and more difficult than previously thought. In particular, the need to further restrain public spending and borrowing is likely to persist for some time yet’.

12. It could be argued that the exchange rate was an intermediate target, and inflation the ultimate objective, but this probably implies more formalisation than was present at the time. The *Annual Report* (1987, p. 6) noted that: ‘A key operating objective throughout 1986/87 was to maintain a degree of stability in the foreign exchange market’.

At the same time that policy-makers in many countries were groping to establish some new framework to replace 'pragmatic monetarism', the previous concordance between the academic and practical frameworks was lost. 'Many macro-theorists are apparently loath to accept any dilution of their earlier image of the economy, partly because it raises questions about the adequacy of their models, and the meaning of such accepted concepts as rational expectations. This has led to an increasing divide between a state-of-the-art macro-theory and practical policy analysis' (Goodhart 1989, p. 335). The mainstream academic theory retained strong elements of monetarism, although commentators such as Ben Friedman recognised its comprehensive failure as a practical guide to policy. Some of the developments in the academic world remained entirely remote from the practical policy-making world (most notably the development of real business cycle theory, which had no role for monetary policy). Other elements *did* influence practical thinking, although often obliquely. The 'rational expectations' revolution made policy-makers think about the interaction of their policy-making framework with private decision-making (although, in all probability, no central banker ever accepted the view that monetary policy had no impact unless it involved 'surprises').[13] The gradual popularisation of the time-inconsistency critique of policy-making brought much greater interest in the *institutional framework*, particularly the issue of the relationship between politics and monetary-policy setting, and the issue of central bank independence. That said, central bankers, by and large, did not see themselves as 'congenitally inclined to administer inflation surprises' (Grenville 1996, p. 34) to an unsuspecting economy.

4. Phase Three: 1987 to 1989 – The Asset-price Boom

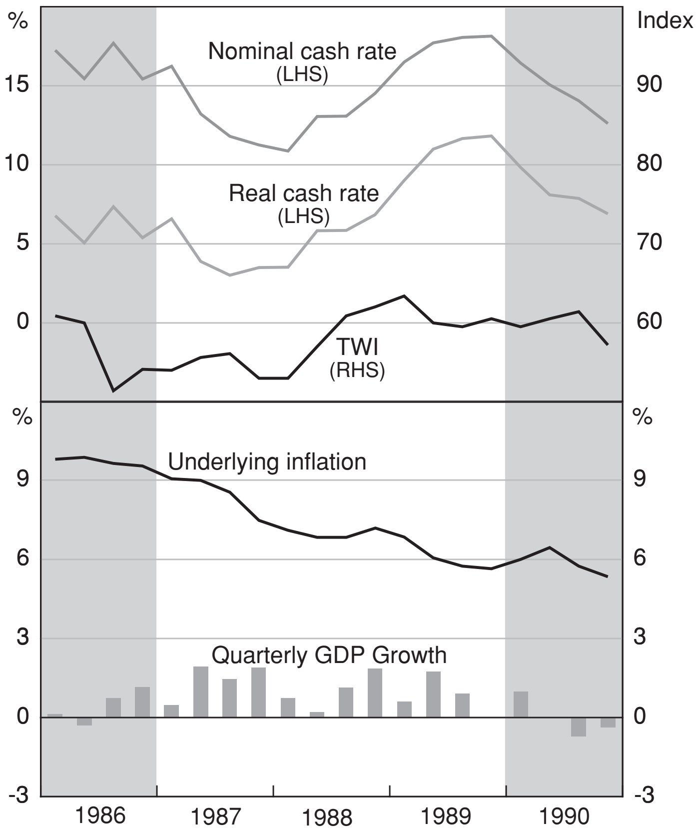
This period represents a transition in policy thinking, not fully developed or articulated until the next phase. The motivation was a growing discomfort (within and outside the Bank) with the degree of policy discretion, combined with the recognition that most other OECD countries had succeeded in getting inflation down: Australia, with inflation not far short of 10 per cent, looked out of step, and there were increasing calls for the Bank to 'do something about it'. At the start of the period, policy-makers still thought that general downward pressure on inflation would be enough to restore price stability. By the end of this phase, there was a recognition that monetary policy would have to take a more active role in re-establishing price stability. Perhaps the defining characteristic of this phase is the asset-price inflation, which demonstrated more clearly than before how inflation had pervaded economic decisions. The damage this did to resource allocation was clear, and the need to correct it became more obvious.

How does the half-formed transitional framework of this period fit the three-fold classification of characteristics?

- The final objective was not more explicit than set out in the Act, but inflation came to be seen as the serious problem, so there was a greater determination to lower it, without specifying an exact objective: 'While monetary policy can and does affect

13. 'Lucas, Sargent, Sargent and Wallace and Barro develop Rational Expectations models with striking conclusions. Systematic, and therefore anticipatable, monetary policy would have no real effects even in the short run' (Begg 1985, pp. 132–133).

Figure 5: Monetary Indicators – Phase Three



activity in the short run, its ultimate goal should be price stability' (Macfarlane and Stevens 1989, p. 8).

- The transmission was still seen as being via income/output to inflation. The exchange rate, over time, assumed greater importance as a positive force for inflation control, less inhibited by concerns about loss of international competitiveness.
- The main instrument in winding down inflation was still seen as the Accord, with various wage/tax trade-offs used as 'circuit breakers' to try to shift the wage/price nexus to a lower level.[14]

Was this period a simple continuation of the check-list framework of 1985 and 1986? The check-list had been an immediate response to the suspension of monetary targeting.

14. The emphasis in getting inflation down was still on co-ordinated policies. Fraser (1989, p. 13) stated: 'Fighting inflation might be what monetary policy does best but, however good it is at that, monetary policy alone will not beat inflation in Australia other than at extremely high cost in terms of output and employment forgone'.

Its lack of rigour (and confusion between intermediate and final targets) became obvious over time, and there was clearly some discomfort with the degree of discretion it gave to policy. There was also a growing perception that inflation had not come down as much as expected and was now out of line with the international norm. With the greater degree of international financial integration, this was seen to make us more vulnerable (Erskine 1990).

The main response was an attempt to sharpen up the *ad hoc* processes of 1985 and 1986. The main specific step forward was a more precise view about the role of intermediate and final objectives (this discussion was reflected in papers by Macfarlane (1989b) and Grenville (1990)). The guidance of monetary aggregates had been abandoned only reluctantly: 'However, for automaticity to be better than discretion, you need a *relevant* rule which effectively links operating objectives to final objectives. We have not been able to find a simple quantitative rule that will work in practice… Once the idea of a firm, consistent money/prices relationship is abandoned (however reluctantly), perhaps the most difficult issue is the *calibration* of monetary policy' (Grenville 1989, pp. 9, 14). The desirability of an intermediate target was acknowledged, but the possible intermediate targets (monetary aggregates or the exchange rate) were rejected as being inappropriate to the circumstances (Macfarlane 1989a). The conclusion was drawn that the instrument needed to be set with the final objective as its guide (and there was a recognition that this needed to be forward-looking – later to be re-styled as 'pre-emptive').[15] There was a sharper recognition of the important time dimension of the Phillips-curve framework – the short-run trade-off and the long-term absence of a trade-off – which led policy-makers to realise that they would have to do more than simply smooth the cycle to achieve price stability. There was a recognition of the possible biases in mistaking the operating instrument (nominal interest rate) for the ultimate objective (Macfarlane 1989b, p. 15).[16]

While the framework was being sharpened, there was a growing realisation that inflation was seriously distorting decisions. By 1989, a greater emphasis on inflation is apparent in the *Annual Report* (p. 8): 'The vital key is inflation. Restructuring is much more difficult, even impossible, in a high inflation environment which destroys competitiveness and discourages saving. Altering this situation must have top priority'. By November 1989, the Governor was saying: 'Every central bank should have as a medium-term economic goal the reduction in – indeed, the elimination of – inflation. In Australia we are seeking to achieve this goal without incurring unacceptable recessionary costs' (Fraser 1989, p. 13). As one economic commentator said: 'Australia's central bank had lost its credibility as an independent inflation fighter during the great inflation of the 1970s and 1980s. But, reflecting an international shift in central bank thought, the Reserve Bank gradually articulated a new economic policy rationale for itself that placed low inflation as the overriding target for monetary policy' (Stutchbury 1992, p. 64).

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15. 'Actual inflation is not a good guide for monetary policy: leading indicators of inflation are much more useful. The main leading indicator is the strength of domestic demand. Monetary policy should aim to keep domestic demand growing at a rate that is consistent with future restrained inflation. Indicators of inflationary expectations are also very important. In this scheme of things, indicators of future inflation have become a quasi-intermediate objective' (Macfarlane 1989b, p. 154).

16. Research papers written at this time (see, in particular, Edey (1989)) demonstrate that nominal interest rates can be an effective instrument of monetary policy, provided there is some nominal anchor (either nominal income or inflation).

So much for the evolving policy framework: what of the events of the time? By late 1986, the downward pressure on the exchange rate was over and, apart from one very brief period of weakness early in 1987, the exchange rate strengthened. The combination of slower economic growth, a stronger overseas environment, firmer commodity prices, the prospect of lower inflation and the acceptance by financial markets that the Budget was on the right track, all combined to change the tone in the foreign-exchange market. The settings of policy which had been necessary to support the dollar were no longer needed. There was subsequent criticism that monetary policy in 1987 was unduly lax: the question for policy at the time (and with the benefit of hindsight, still is) not so much whether interest rates should be eased, but by how much.

The framework in place at the time gave no guidance on this: but it was not clear what monetary framework *would* have provided such guidance. By this stage, the evidence on money-demand instability was irrefutable – and in any case, even in the period of monetary targeting, the target was never considered to be sufficiently precise to offer specific guidance on the day-by-day policy settings.[17] Credit had continued to grow at close to 20 per cent in 1986, even with the real economy recording almost no growth, so there was also no guidance to be had from this.

In the event, common sense was the guide. While inflation had been the clear priority in the 1985 and 1986 period (because it was the main threat), in 1987 activity and inflation were both relevant. With the economy quite weak and inflation coming down, nominal interest rates were eased to 11 per cent – representing a real interest rate of around 4 per cent. The exchange rate may also have been a factor: there was no great enthusiasm to see the exchange rate strengthen very substantially (some saw the newly competitive exchange rate as an important requirement for the structural change that would diminish the chronic structural current account deficit).[18] But the main influence of this time was a perception that interest rates had been abnormally high in 1985 and 1986, and they needed to be adjusted to the different economic circumstances of 1987, even though inflation had not yet fallen to an acceptable rate. There were no signs, until the June-quarter accounts were released in August 1987, that the economy had any strength. The only ‘outlier’ in the uniformly lack-lustre data set was stock-market prices – which had risen 25 per cent in the first half of 1987. These equity prices were a foretaste of what was to come: a two-year period of very strong asset prices, not closely connected with the real economy, but largely driven by the response to financial deregulation and the interaction of inflation and the tax system. The monetary framework in place at this time had no specific guidance on how monetary policy should respond to asset prices, in a world where other measures of inflation were coming down, albeit slowly.

Before policy-making took aboard the evidence that the economy was speeding up in the second half of 1987, the stock market shake-out of October occurred. There was, in fact, almost no further easing of monetary policy in the aftermath of the shake-out

17. Macfarlane (1988, p. 12) in the SEANZA lecture, set out the degree of accuracy that would be required of the money-demand function before it could provide operational guidance, and this degree of accuracy was clearly not even remotely approached.

18. The *Annual Report* (1988, p. 14) reflects this tension: ‘It was not possible for interest rates to be used simultaneously to dampen domestic demand and demand for the Australian dollar’.

(Macfarlane 1991, p. 189), although policy-makers were on tenterhooks, watching the impact on the financial sector in particular. In the event, there were no obvious knock-on effects to other sectors: to the extent that there were important effects, these tended to work themselves out in slow motion, with the balance-sheet damage done to some corporations not being apparent for a couple of years. The stock-market shake-out did, however, delay consideration of an interest-rate increase which would otherwise have been on the agenda. By April 1988, it was clear that the economy was quite strong, and that inflation was not coming down as fast as had been expected. Interest rates were raised by some 200 basis points in April/May 1988 (historically, a very large initial increase) and this was the start of a process which, over the next 15 months, took interest rates up by a further 500 basis points. This was a response to excess demand growth – towards the end of 1988 and early in 1989, demand was growing at an annualised rate of over 10 per cent – (which manifested itself, also, by spilling over into the current account deficit, leading some observers to say that it was the deficit that was motivating policy – see below). Unlike in some earlier periods, there was a notable readiness to raise interest rates in response to an economy which was running too fast.[19] The absence of any calibration made it hard for the Bank to be 'pre-emptive' in setting rates, but the determination of the Bank to slow demand is reflected in Governor Johnston's comments in March 1989: 'Over the past month or so, there have been some tentative signs of moderation in the strength of demand but…we will have to hold to the tougher policies until it is clear that results are on the board. This might well entail further turbulence and take a bit longer than expected earlier' (Johnston 1989a, p. 9).

The strength of demand (and the potential effect of this on inflation) would have been enough to explain the tight settings of policy.[20] But asset-price inflation strengthened the Bank's resolve to reduce inflation. Although the Bank did not target asset prices (Macfarlane 1991, p. 187), the Bank took much greater interest in asset prices in 1989, noting the interaction between inflation and the tax system, and the greater gearing up for asset purchase which had been made possible by financial deregulation and international integration: 'the fundamental reason is that after nearly two decades of relatively high inflation, the community has concluded that the road to increased wealth has been to become the owner of assets that increase in value' (Macfarlane 1989, pp. 28-30). The Bank knew the dangers of bursting an asset-price bubble, although the most recent example – the October 1987 share-market shake-out – did not seem to have

19. The exchange-rate crisis of 1985 and 1986 had shown policy-makers that interest rates could be shifted sharply without dramatic consequences for activity. After the high interest rates of late 1985, the Governor noted: 'In a deregulated system, interest rates need to be higher to produce any desired degree of monetary "tightness"'. We have had to await interest rates reaching a level where resistance by borrowers and concern by lenders about borrowers' capacity to use funds emerged before monetary policy recovered its effectiveness' (Johnston 1986a, p. 4).

20. As Governor Johnston said in March 1989: 'In broad terms, we could say that the unexpectedly powerful economic growth has cost us a year in a strategy for winding down price increases and improving the balance of payments'. With the calibration of policy so difficult at this stage, there was no notion of looking forward to anticipate the slower economy and lower inflation. 'Growth has been so rapid as to be seriously underestimated by the policy-makers'. 'The policy setting has tightened. But are we doing enough, quickly enough? We know that if macro policies are pursued with sufficient toughness, long enough, they will slow the economy. But there can be no precise, scientific answers to these questions' (Johnston 1989a, pp. 8–9).

had any immediate wider impact on activity.[21] While the asset-price increases were not specifically incorporated into the monetary framework, they reinforced the growing view that inflation had now been incorporated into widespread economic behaviour, and this was distorting many economic decisions. It emphasised that policy could no longer rely on the fading-away of the inflationary impulse, but would have to take a more active role in restoring price stability. The 'mind-set' had changed, and policy was being set with lower inflation as the objective but the opportunity to achieve this had not yet arrived. While policy did not succeed, at this time, in achieving price stability, the problem (as Hughes (1994, p. 148) points out) was that there was a gap between the *effectiveness* of policy and its *intent*: the Bank was not able to make significant progress on inflation, on the 'easy wicket of fast growth'. But policy was tight enough to ensure that inflation (properly measured)[22] continued to fall throughout the period, despite the strength of demand and the asset-price inflation. With no upward slippage in inflation (or wage break-out) during this period of economic exuberance, the scene was set for inflation to fall significantly when the economy slowed.

While monetary policy at this time is criticised for incorrect focus on the current account deficit, the Bank's Annual Reports emphasise that the current account deficit required *structural* change: 'Monetary policy remains a potent demand management tool, though its effects are distributed unevenly. It will reduce, or even reverse, a surge in aggregate demand if applied vigorously enough and for long enough. This should, with a lag, cut into the demand for imports and thus the current account deficit. However, this is not the primary objective. In fact, in the short run, there may be perverse effects on the balance of payments if higher interest rates produce an exchange-rate appreciation. On its own, monetary policy will not produce the longer-term structural benefits Australia is seeking. Beyond a point, it may even inhibit the structural change because of the effect of high interest rates on investment of all types. Nevertheless, monetary policy has an essential role in supporting structural reform' (*Annual Report* 1989, p. 7).[23] Clarity of analysis, however, was not helped by some of those involved in the policy discussion who did see monetary policy as the appropriate instrument to address the current account deficit – this may have encouraged policy to stay firmer longer into the second half of 1989, in the face of a recognition on the part of the Bank that the economy was slowing. For further discussion see Edwards (1996).[24]

21. The *Annual Report* (1991 p. 4) later described this as 'an inevitable collision of strategies based on high gearing and rising asset prices on the one hand, and the arithmetic of high funding costs on the other'.
22. Those who insisted on focusing on the distorted headline inflation rate missed the trend. For example, Stemp and Murphy (1991, p. 22) commented: 'No sustained reduction in inflation has been achieved over the past five years'.
23. See also Phillips (1989).
24. Tingle (1994) observed: 'There was a growing rift between the Treasury and the Reserve Bank on the appropriate use of policy. Treasury was more aligned with Keating's position of explaining changes in interest rates in terms of the balance of payments, a position that some of the Reserve Bank thought was ridiculous'. For other discussions on the politics of the time, see Kelly (1992) and Toohey (1994).

5. Phase Four: 1990 to Date – The Fall in Inflation

1990 represents the watershed for inflation, with the high rates of the previous two decades quickly replaced by an average of 2–3 per cent.

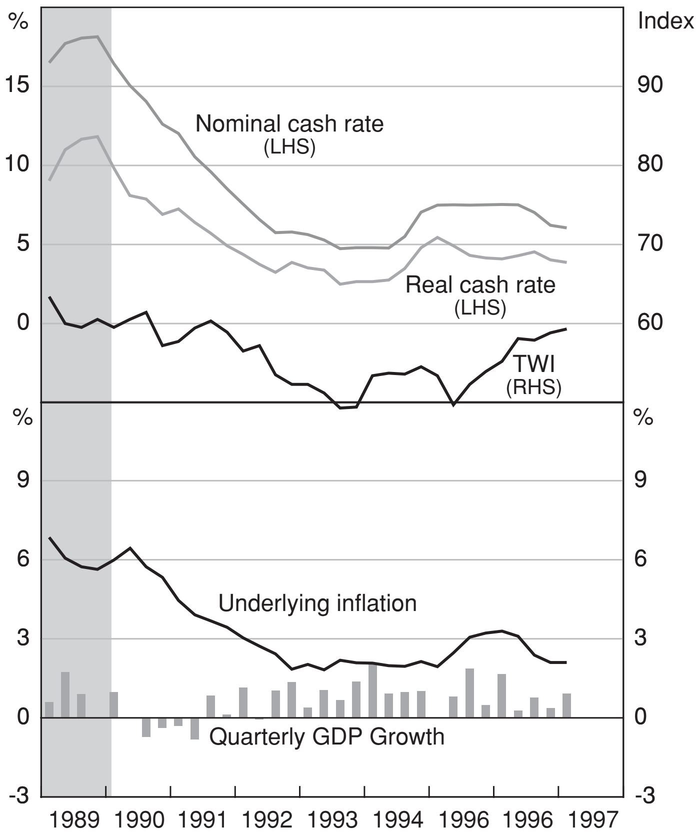
There is little doubt that inflation would have fallen in the early 1990s: policy had been set tightly enough during the late 1980s to prevent inflation from rising during a period of very strong activity (in fact, it continued to come down). The *extent* of the fall in the 1990s, however, reflects the unexpected severity of the 1990/91 recession. As one journalist noted: 'In the late 1980s, economists repeatedly were surprised by the Australian economy's vigour. They were equally caught out by the severity of the economy's slump in 1990 and 1991' (Stutchbury 1992, p. 17).[25] The Bank did not set policy with a view to producing the sort of inflation-busting downturn that had occurred in the United States in 1979–82 (the Volcker deflation). Nor was there in place the sort of 'heat shield' monetarist rule that would have supported the authorities during such a process. But when the recession came, the inflation focus of the late 1980s meant that the policy response was quite different from the recession of 1982/83 and the slowdown of 1986, when the Bank had been a passive player in the unfolding events – in 1990, the Bank was prepared to use the opportunity to achieve a *structural* downward shift in inflation.[26]

This recession could be relied on to reduce inflation, as always happened in a cyclical downturn. The central issue, in evaluating this period, was that the cyclical fall in inflation also provided an opportunity for a structural change as well – to shift to a world of price stability. This required that policy should focus, much more sharply than before, on inflation. 'To reduce inflation in a structural permanent way – as distinct from a temporary, cyclical improvement – requires the prevailing inflation psychology to be fractured' (*Annual Report* 1991, p. 3). Some have argued that the Bank's inflation focus came as a *result* of the (implicitly accidental) success in reducing inflation (Pitchford 1993, p. 7 and White 1992, p. 16). The clearest refutation of this view is in the mid 1990 *Annual Report*, with its singular attention to inflation, at a time when inflation had not yet

25. This may be a chronic problem in cyclical assessments. Quoting Keynes, Skidelsky (1997, p. 35) says: 'The forces of optimism may triumph over an interest rate "which in a cooler light would seem to be excessive: conversely", "the collapse of the marginal efficiency of capital may be so complete that no practicable reduction in the rate of interest will be enough"'.

26. Why did inflation fall much more sharply than the Bank (or other forecasters) expected? There was, initially, some help from the exchange rate and world prices (which reflected the weakness of international demand). Macfarlane (1992a) notes, too, that (unlike earlier downturns) this one was not preceded by a profits squeeze, so margins could be cut as demand fell. Wages, too, were quicker to reflect falling demand than might have been expected, given the wages pipeline left over from earlier Accord arrangements. Wage/tax trade-offs may have helped (throughout 1990 and 1991, they were still given an important role in the Bank's anti-inflation framework – see Fraser (1990a)). 'Whereas the Accord seemed to put a "floor" of about 7 per cent under the inflation rate during the 1980s, recent events have confounded this pessimistic interpretation. The rate of growth of earnings has come down *pari passu* with the rate of inflation. In the event, there turned out to be no "floor"; what was left of the centralised system was flexible enough to adjust to the recession and the sharp fall in consumer prices' (Macfarlane 1992a, pp. 10–11). In April 1990, the IRC rejected Accord VI, agreeing to a smaller wage increase, reflecting the economic circumstances. In October 1990, the opportunity was taken to use a further wage/tax trade-off to reduce further the wage growth and empty out the 'wage pipeline' of impending increases. From October 1991, enterprise bargains (i.e. a decentralised system) became the key principle of wage policy.

Figure 6: Monetary Indicators – Phase Four



fallen.[27] From the front cover, to the anti-inflation quotations introducing each chapter, the focus was inflation. Having acknowledged that 'the crucial adjustments – particularly in terms of reduced inflationary pressures and import demand – are starting to come through', the *Annual Report* (1990, pp. 4–5) went on to argue that 'the task of monetary policy is not completed with the removal of excess-demand pressures; rather, monetary policy will need to remain relatively tight to help wind down inflation'.[28, 29]

27. The emphasis on inflation had been highlighted earlier, in a speech in April by the Governor called 'Inflation', which argued that: 'We would do better to try to eliminate inflation than to try to live with it: and the policies to be pursued to get inflation down must avoid the "cure is worse than the disease" problem' (Fraser 1990a, p. 19).

28. Phillips (1990, pp. 15–17) provides another example of the sharper focus on inflation. Having acknowledged that inflation was running at 'around 7 per cent', he went on to say that '7 per cent is not really good enough. Our judgment is that the costs are clearly big enough that inflation must be reduced'. There was also a new emphasis on breaking inflationary expectations. 'To the extent that we can influence expectations by more clearly communicating our objectives, we should hopefully be able to speed up the process of adjusting expectations and therefore lower the cost of reducing inflation. (But) people will only confidently adopt

Within the Bank, the belief at the time was that the broad profile of the cyclical trough was not, by 1990, much amenable to changes of monetary policy, having been largely determined by earlier settings and by the unfolding world slowdown.[30] The *Annual Report* (1991, p. 3) noted: 'it was clear that the slowing in activity was greater than had been expected', but went on to note that 'too rapid a reduction in interest rates would risk suggesting to a sceptical public that here was another round of 'stop/go' policies. In that event, price expectations would not go lower and the opportunity to achieve a lasting reduction in inflation would be lost'. 'Monetary policy is not just about smoothing out the business cycle. That would mean just accepting whatever the inflation rate happens to be now' (Phillips 1990, p. 17). The important policy objective, then, was to achieve some 'gain from the pain'.[31] The Governor said: 'When the economy is running hot, everyone can agree on tighter policies: it is when the economy slows and the stance of policy remains relatively firm that policy-makers demonstrate their resolve to wind back inflation' (Fraser 1991a, p. 1). In November 1990, he said: 'There is now the very real prospect of Australia joining the ranks of the low inflation countries. We must not allow this once-in-a-decade opportunity to slip through our fingers' (Fraser 1990c, p. 4).

Once the downturn began, the settings of policy were quickly adjusted, beginning in January 1990.[32] A significant slowing of the excessive growth rates of 1988/89 was needed (and policy aimed to bring it about), but there was no recognition, in 1990, of the magnitude of the downturn.[33] Nor, given the surprisingly high real interest rates needed

much lower expectations for inflation when they actually see it come down and stay down'. 'After two decades during which prices have increased overall by just on five times, it seems to me worthwhile to step up our efforts.' There was a recognition that policy had to do more than stabilise the cycle: 'the problem with an exclusive focus on the business cycle was that we may well stabilise the real side of the economy without stabilising the price side of the economy'. Macfarlane (1990, p. 34) focused on asset aspects: 'It was the mentality of seeking wealth through geared asset accumulation that drove the real excesses of the system. This was the delayed product of the inflationary 1970s and should abate as lower inflation rates and higher real interest rates leave their mark on people's experiences'.

29. One interesting aspect of this is that when the former Treasurer became Prime Minister at the end of 1991, 'he continued to invest considerable political capital in the low inflation goal' (Stutchbury 1992, p. 65). In the February 1992 One Nation speech he said: 'The bedrock of the great post-War economies has been low inflation. It must be ours too. Labor will never surrender the inflation fight' (Keating 1992).

30. As the *Annual Report* (1991, p. 4) put it: 'Past experience has made policy-makers wary of attempting to finetune the economy…given the lags between events and the effect of any policy response, even a sharp easing of policy could not have done much to avoid the emerging weakness'.

31. The *Annual Report* (1992, p. 3) noted: 'Everyone supports action against inflation in boom periods, but the authorities must also demonstrate their anti-inflation commitment during downturns if they are to influence long-term price expectations. A clear message was therefore conveyed that lower inflation was an abiding objective of policy, not simply an accidental by-product of economic downturn'. The Deputy Governor, in talking about this period, said: 'At no stage was there an attempt to turn all the guns around and focus only on propping up the economy, at the expense of the medium-term objectives. In our view, this would probably have been misguided and risked us ending up with the worst of possible worlds – forfeiting the inflation gains for, at most, a negligible pick-up in activity' (Macfarlane 1992b, p. 15).

32. The adjustment was, in fact, faster than had been urged by Harper and Lim (1989, p. 24).

33. One of the other strong impressions from this period is that policy was backward-looking in *two* senses. First, the conventional one, in which policy is based on past data rather than the future. Second, the policy thinking and framework depends on past experiences. There are a number of examples of this, where past experience proved an unhelpful guide to the future:

- Prior to the 1990/91 recession, downturns had invariably been associated with excessive wage increases or sharp falls in Australia's terms of trade (and commodity prices): neither seemed to be present early to restrain growth in 1989, was there much empirical guidance on what a 'neutral' interest rate would be. As one economic journalist put it at the time: 'Quite simply, there is little historical guide to the interaction of high interest rates, financial deregulation, and a debt-burdened corporate sector, a bad-debt-exposed banking system and asset-price disinflation' (Stutchbury 1991, p. 9). Many commentators criticised the reductions, as premature or electorally inspired (or both).[34] Two other factors complicated the policy assessments of the time. Of course it was recognised that policy should be forward-looking and should be assessing *prospective* inflation rather than actual inflation, but neither the Bank nor market commentators foresaw how quickly inflation would fall. The second factor was the weakness of the exchange rate, beginning towards the end of 1990. While such weakness was consistent with the weakening of the terms of trade (in fact, in the middle of 1990, the exchange rate had seemed too *strong*), past 'feed-through' relationships would have suggested a large impact on inflation from the exchange-rate fall. This did not occur.[35] From 1991 onwards, the exchange rate continued to be a constraint on downward interest-rate adjustment. There was a 15 per cent fall in the exchange rate over the 12 months to August 1992.[36] The Bank 'sought to facilitate the process of exchange-rate adjustment in an orderly way so as not to undermine confidence in the coherence of policy'. The *Annual Report* (1993, p. 5) notes that a '20 per cent real depreciation, which has occurred without the crisis atmosphere often characterised in international foreign exchange markets, is a significant achievement which augurs well for Australia's future competitiveness'.

In a mechanical sense, nominal interest rates were moved down in 1990 at about the same rate (and from much the same level) as they had been moved down in 1987 (when many commentators criticised the Bank for moving down too far and too fast). The rate of reduction was also about the same as in the 1983 recession. The similarity of the movement is, however, just a coincidence: the speed of reduction was influenced by judgments about how the markets' inflation expectations were moving – as measured by the exchange rate and long bond rates (the slope of the yield curve) (*Annual Report* 1991, p. 13). For most of this time, the Bank was pushing at the edge of what the market would

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in 1990, although world growth turned out to be significantly slower than expected.

- The high interest rates of 1985 and 1986 had not produced a sharp downturn in the economy (although these had been in place more briefly).
- The share-market shake-out of 1987 suggested that an asset-price bubble could burst without doing much harm to the real economy.

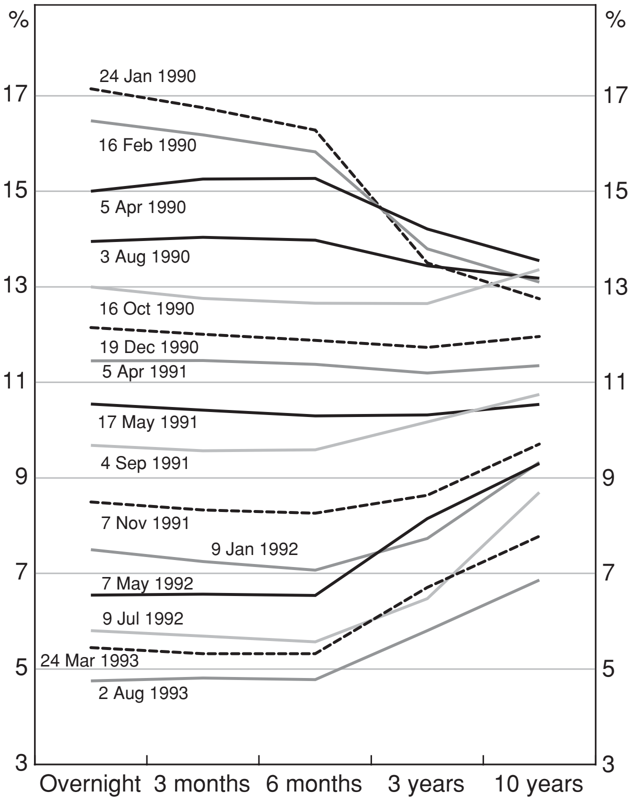
34. Notable, but by no means atypical, was the reaction of Paddy McGuinness in *The Australian* (25 January 1990): 'There is room for a lot of criticism of the…Reserve Bank Board in agreeing to start bringing interest rates down just now. For there was a good case to be made for an increase rather than a cut in interest rates'.

35. For a discussion on the different relationship between import prices and the CPI in this episode, see RBA (1993).

36. The degree of concern can be gauged from the *Annual Report* (1993, p. 4), which noted that: 'the Board considered but did not pursue the possibility of raising interest rates to help counter pressures on the Australian dollar', but it rejected any 'substantial tightening aimed at supporting the exchange rate…because this would have further burdened an already struggling recovery'. As with many of the issues of this period, there were antecedents: the 35 per cent fall in the exchange rate in 1985 and 1986 had put an end to the progress made in 1984 in getting inflation down.

Figure 7: Yield Curve

Day after monetary-policy easings

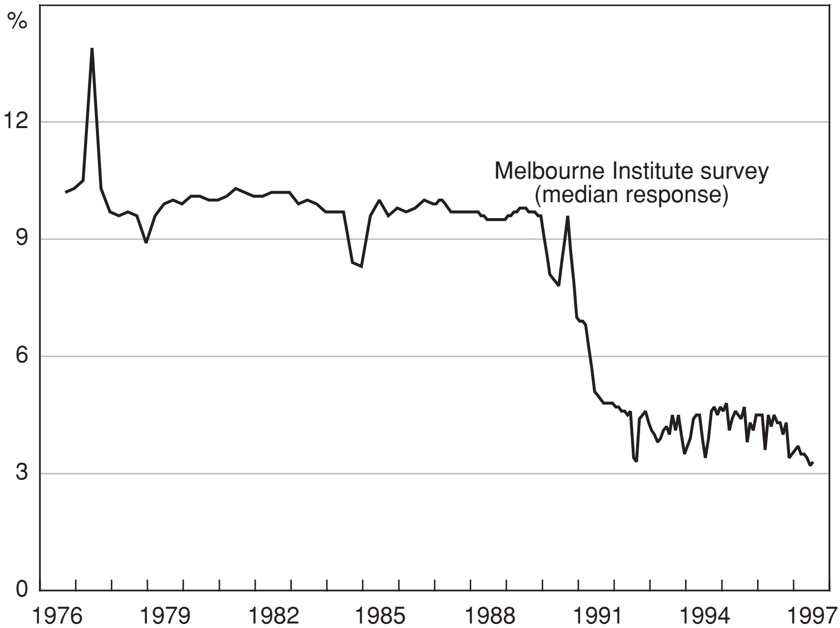


accept, in terms of rate reductions (*Annual Report* 1992, pp. 3–4). The first five easings in 1990 (which took interest rates down by 500 basis points) brought no change at the long end of the yield curve, suggesting there had been no change in longer-term price expectations. From late 1990 to mid 1991, cash rates and long-term bond rates moved down together – evidence of a structural break in inflation. After then, again, the interest-rate reductions ran ahead of longer-run expectations, as embodied in bond rates.[37]

While this policy adjustment was underway, the inflation environment was transformed. By the time the September-quarter 1990 CPI was released, inflation had taken a significant fall. There were other early indicators of change: there was a sharp fall in the Melbourne Institute's measure of consumer price expectations in late 1990 (in marked contrast to the 1984 experience). The new world of low inflation was not, at that stage, firmly established. Price expectations fell only slowly, and the new framework was to be put to the test in 1994, with a surge in demand which required a sharp tightening of policy to contain inflation. But, by May 1992, the Bank could say: 'it has been our view

37. For a discussion of the role of bond rates and the yield curve in setting policy, see Fraser (1991b).

Figure 8: Consumers' Inflation Expectations



for some time that we have made a structural downward shift in inflation' (Macfarlane 1992a, p. 9). In mid 1992, the *Annual Report* (p. 2) noted: 'Inflation has declined in periods of cyclically weak economic activity in the past. On this occasion, however, there are good grounds for believing that a critical threshold has been breached and that Australia can sustain a low inflation environment… All indicators of inflationary expectations suggest that there has been a real breakthrough over the past two years'. With hindsight, low inflation was achieved in the second half of 1990 and has been maintained since then at an annual average rate of $2^1/_2$ per cent. Such was the improvement in inflation that the nature of the task changed, from inflation reduction to price-stability maintenance. For this, a new element – an inflation target – was added to the policy framework.

6. The Current Policy Framework

While these events were underway, the process of reformulating a 'rule-based' framework (which had begun in 1989) was completed. This framework can be seen, in terms of the three-fold classification, in the following way:

Rules and objectives. By 1993, there was a specific final objective ('2–3 per cent inflation over the course of the cycle'). This had been formulated by the Bank and was subsequently endorsed by the Treasurer. There was no specific intermediate objective or operational rule.

The **transmission** channel was seen, as before, as being via output to inflation, with the exchange rate having an important role. In a revival of an element of the monetarist phase, *price expectations* came to be seen as the central factor in determining how successful policy would be in maintaining low inflation.

The **context** had monetary policy as a 'stand-alone' instrument, directed principally to the objective in which it had a comparative advantage – price stability. The relationship with wages policy had almost been reversed: in the 1980s, monetary policy had supported wages policy in putting downward pressure on inflation; in the 1990s, monetary policy was directed primarily towards price stability and, in doing this, had an important influence on the economic climate in which wages were determined. The other important element, in the policy context, was the specific re-affirmation by the Treasurer of the Bank's independence to make monetary policy.

This framework was not put in place instantaneously. While price stability had always been an important objective for the Bank, until the 1990s it had been on a 'best endeavours' basis. And, as we have seen, there were other over-riding priorities which distracted policy in the 1980s. The evolution has some 'chicken-and-egg' elements to it: the new framework greatly enhanced the Bank's ability to maintain price stability, but it was not feasible, in Australia, to put the framework in place until a reasonable degree of price stability had been established. This section explores this in more detail.

Inflation targeting was pioneered by New Zealand, in 1989, closely followed by Canada. Quite quickly, there were calls for its adoption in Australia. The idea of an inflation target was rejected by the Governor in November 1990 (Fraser 1990c, p. 6). Why was Australia slow to adopt this framework? Why, when this broad framework was adopted in 1993, was the specification somewhat different from New Zealand's?

While inflation became the principal focus of policy in 1989, there was no question, then, of fixing on a particular inflation rate and ensuring that policy was set to achieve this. Rather, the downturn would run its course and whatever lower rate of inflation came out of that would be accepted, for the time being, at least. The Bank accepted that there might have been a 'credibility bonus' in defining the inflation objective beforehand, but was too uncertain about what rate of inflation would come out of this episode.

A second factor which inhibited the introduction of a specific inflation-targeting framework at this stage was the political debate. The then Opposition had proposed the re-writing of the Reserve Bank Act to give it a single price objective, and require it to pursue a New Zealand-style inflation-targeting regime.[38] Given the vigorous debate between the two political parties on this issue, the Bank was unable to make a useful contribution without getting itself deeply politicised in the process.

A third factor was a reluctance to accept some aspects of the New Zealand model. In particular, it seemed unlikely that Australia could realistically target an average rate of inflation as low as 1 per cent (which was the New Zealand objective until 1996) unless policy consciously worked to make the recession deeper. As well, the view in the Bank was that any inflation target should focus on the mean rather than the *range*. Considering the regular terms-of-trade shocks which Australia experienced, and looking at the history of cyclical fluctuations in inflation in Australia (going back to the period of price stability in the 1950s and 1960s), it was clear that these variations were greater than the 2 per cent

38. Liberal National Party (1991a, pp. 37–38); Liberal National Party (1991b, pp. 129–130).

range in the New Zealand specification.[39] In time, as other countries adopted inflation targets which were not the same as the New Zealand model, it became more feasible for Australia to adopt its own variant (including focus on the mean rather than the range, and with a clearer role for economic activity, as required by the Act) without invidious comparisons with the pioneering New Zealand model.

Even before the inflation target was defined explicitly, other elements in the framework were developed. The first was towards greater accountability. The most important change was the announcements of policy changes, beginning in January 1990.[40] The Bank had, over time, already increased the frequency of its communication via speeches, and these became more frequent still. The regular assessments of the economy contained in the Bank's *Bulletin* were made more complete and rigorous, so that they became, in effect, more like the 'inflation reports' of the type produced by the Reserve Bank of New Zealand and the Bank of England. The final element was the RBA's semi-annual appearances before a parliamentary committee.

As for the exact inflation target, it was defined when it became clear what was feasible after the recession of 1990/91. A number of variations of inflation targets were considered about this time. From the Government and union side, the usual format was a rate of inflation which matched our trading partners.[41] The One Nation proposals of February 1992 aimed for 3–4 per cent. But the Bank recognised that the case for low inflation relied on domestic considerations, not international comparisons; as well, it had something lower in mind. The Governor, in a speech in April 1990, said he hoped that inflation could be running at less than half the then current rate of 6–7 per cent. When the underlying inflation rate went below 3 per cent, this was progressively more firmly defined as the basis of the inflation target. By August 1992, the Governor was saying 'there is no reason why the current underlying inflation rate of 2–3 per cent cannot be sustained' (Fraser 1992, p. 7). By April 1993, the formulation was: 'If the rate of inflation in underlying terms could be held to an average of 2–3 per cent over a period of years, that would be a good outcome' (Fraser 1993a, p. 2). By October 1993, the formulation was: 'We believe the underlying rate will be held around 2–3 per cent. This belief reflects several factors, not least being the determination of the Reserve Bank and the Government to see that Australia stays in the low inflation league' (Fraser 1993b, p. 16). A more policy-oriented aspect was clear by 1994: 'If, however, shortcomings in one or more of these areas were to threaten to push underlying inflation noticeably above the 2–3 per cent range, corrective action would have to be implemented' (Fraser 1994, p. 28).

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39. In the same speech that introduced the objective of achieving 'underlying inflation held to an average of 2–3 per cent over a period of years', the Governor also said that 'an inflation target of the narrow "0-2 per cent" variety would, I believe, do us more harm than good. In particular, such targets are apt to bias policy responses to shocks which impinge on prices. Such shocks are probably best absorbed by changes in both prices and activity but if the authorities are bound to a narrow inflation target then virtually all of the shock has to impact on activity' (Fraser 1993a, p. 4). For a discussion on the merits of the Australian specification and the historical degree of variation experienced internationally, see Grenville (1996).

40. Partly, this reflects the experience of 1988, when the effects of the initial increases in interest rates had been muted by misunderstandings about the Bank's policy intentions.

41. The agreement between the Government and the ACTU in the context of the August 1991 Budget was: 'The parties agree to work towards wage outcomes consistent with keeping Australia's inflation at levels compatible with those of our major trading partners'.

While there were many advocates of a single objective (inflation) at this time (see, for example, Morgan (1990), Jonson (1990), Cole (1990) and Stemp and Murphy (1991)),[42] the Bank was never much interested in shifting to a single goal of price stability. Eichbaum (1993, p. 5) described the Bank's position as 'exceptional' among central banks, but this point had been well understood by an earlier generation of economists: 'It is disingenuous, to say the least, for central bankers to pretend that their actions have no effects on real interest rates, unemployment rates, and other variables of concern. Time will eliminate the inertia of price and wage adjustments. But there are no long-run steady states whose properties are independent of the paths by which they are reached' (Tobin 1983, p. 511). The Act specified two objectives, and any re-writing of the Act seemed infeasible. But it also seemed undesirable: former Governor Johnston, speaking in 1992, described the combination of central bank independence and a single (inflation) objective as 'bestowing on the Bank all the freedom of the prison exercise yard' (Johnston 1992, p. 18). Throughout the period, there was a denial of the 'Tinbergen proposition' – i.e. that one policy instrument must be used exclusively to achieve a single policy objective (Fraser 1990b,c). There was also a feeling that, taken literally, it made the task of monetary policy too simple – or simplistic. Artis (1992, p. 176) said: 'Any fool, it might seem, can disinflate. The interesting thing is how to minimise the cost of doing so'. Friedman (1988, p. 65) had noted: 'Everyone had always known that sufficiently tight monetary policy, maintained for a sufficiently long time, could halt even the most deeply rooted inflation. The reluctance to proceed in that fashion lay not in disbelief that such a policy would do its job, but in concern for the resulting real costs'. The Bank understood that, for the most part, there would be no conflict between activity and price objectives (and, in fact, activity would be a principal forward indicator of inflation): when there *was* a conflict (in the case of a supply-side shock, or when a structural reduction in inflation was needed), this could not be resolved by the simplistic expedient of giving an absolute over-riding priority to prices (Grenville 1996). Over time, the idea that output could not be ignored gained more credibility. In the Australian context, John Taylor's paper at the Bank's 1992 Conference made the case that if the authorities try to smooth out variations in inflation too much, this will increase the variability of output (just as the attempts to smooth out variations in output lead to greater variations in inflation) (Taylor 1992).[43] Events of the early 1990s, too, served to remind the Bank that the economy was quite prone to shocks (including those arising from financial deregulation) and that the self-equilibrating properties of the economy were not strong. Perhaps the most compelling argument, at this time, for the reluctance to endorse

42. 'The Australian economy over the past decade seems to have fluctuated more, not less, widely than otherwise because of activist monetary policy. The large discretionary swings occurred in response to what were, in hindsight, generally self-correcting phenomena… The key issue is not so much whether the Reserve Bank is independent of political control, but whether it should be prevented from frequently and somewhat haphazardly intervening on ill-defined grounds. Because the Reserve Bank has clearly made major policy mistakes, the solution is not to remove the institution from the political process, but to curtail its capacity to repeat such mistakes. To this end, a fixed money growth rule should be adopted in place of the existing unbounded monetary policy discretion' (Makin 1993, p. 12) (see also Weber (1994)). There had been earlier proponents: 'Proposition 1: From the perspective of maximising the rate of economic growth and avoiding business cycles, activist monetary policy typically does more harm than good' (Hartley and Porter 1988, p. 2).

43. See also Debelle and Stevens (1995).

a single (price-stability) target was the realisation that, had such a framework existed in the early 1990s, the main effect would have been to delay the interest-rate reductions – in practice, interest rates were lowered by 400 basis points before there was a clear sign (or any recognition) that inflation was on the way down. The Governor argued that an inflation target would have caused the Bank to 'drag its feet' in lowering interest rates and 'the fall in output in the present recession would have been more pronounced than it was' (Fraser 1991c, p. 12).

The debate on independence was somewhat constrained by the belief within the Bank that it had always had a high degree of independence. The Reserve Bank Act refers to the monetary policy *of the Board*, and the rather elaborate Section 11 provisions for disagreement with the Government are a clear indication of the intended independence (Phillips 1992; Macfarlane 1996). This independence, however, was irrelevant during the period of financial regulation, as the fixed prices (interest rates and exchange rates) were set by committees in Canberra. With deregulation came the opportunity for the Bank to have the sort of *de facto* independence that it had *de jure*, but independence was taken in a consensual rather than assertive way.[44] By 1988, the Bank's independence was more clearly stated: 'The Reserve Bank Act puts a duty on its Board to formulate and carry out its monetary policy – not as agent for, or adviser to, Government, but on its own responsibility' (Johnston 1988, p. 1).[45] The emphasis, in this period, was on what Governor Johnston described as an Act 'which encourages consultation and co-operation between the Bank and the Government' (Johnston 1989b, p. 16). Governor Fraser, too, rejected the idea of 'gladiatorial notions of independence – as something to be displayed like a warrior's shield, raised in constant battle with the government of the day. Nowhere do such romantic notions ring true' (Fraser 1993a, p. 4).

Without confrontation, the Bank's enhanced independence emerged as a natural product of events. There is a marked contrast between the current position and the earliest period covered in this paper. Whereas the Treasurer used to announce M3 targets and the Bank's public profile was inconspicuous, policy changes now clearly centre around the Bank's comprehensive announcements of changes, with the decision clearly resting with the Bank's Board. The Bank's profile is reinforced by the Governor's regular appearances before a parliamentary committee, and the Bank plays a prominent role in public commentary on monetary policy. While these snapshot comparisons of two different periods emphasise the extent of the change, it is less easy to identify the exact moment when these major shifts occurred. The shift from regulation to market-based policies (with the Bank having the technical expertise in these) was clearly an important on-going force. Just as clearly, personalities (the Treasurer and the Governor) have been an

44. In 1984, Governor Johnston quoted approvingly of Dr Coombs' earlier views on independence: 'A central banker should be aware that independence, if too highly prized, can lead to isolation in which his influence can become limited and ineffective. He will do better to seek a partnership with government in which his role is significant but in which he accepts the limitations imposed by the need to maintain the partnership as an effective working arrangement… Indeed, the less frequently the central bank seeks to assert or remind the government of its independence the more successfully the central bank will be able to function' (Johnston 1984, p. 768).

45. With independence goes responsibility – Governor Johnston (1989b, p. 16) said: 'It is true that there have been policy misjudgments from time to time. The Bank must – and does – accept most of the criticism'.

important part of the story.[46] The increasingly prominent role given, worldwide, to central bank independence – and the enhanced role of central banks in most OECD countries – was also important in shaping people's views on what was normal for central bank/government relations. The academic debate was not prominent, but it worked in the same direction. There were successive compilations of independence rankings, and while the validity of the early rankings was quite dubious, Australia's shifting ranking probably reflected changing public perceptions of the Bank's independence: in the early rankings, the Bank rated (inexplicably) behind the Bank of Japan and the Bank of England, but by the time more sophisticated and well-based measures were formulated, Australia appears in the middle of the rankings.[47]

While it is not possible, now, to identify an exact moment when the Bank's independence was widely acknowledged, 'the Reserve Bank emerged from the recession publicly conspicuous for the first time in its forty-year history as a separate source of advice to the Government' (Tingle 1994, p. 307). This was formally recognised in the agreement between the Treasurer and the Governor in August 1996, but had been achieved, *de facto*, earlier than this.

7. Conclusion

Given that low inflation was an important objective throughout the period (Hughes 1994, p. 147), why was Australia slow in achieving this? In particular, why was more progress not made in the *1980s*? There seem two main reasons – continuing distractions from other policy problems, and an unwillingness to accept the loss of output involved in getting inflation down.

The distractions were pressing, and the progress which was made in solving them during the 1980s was considerable. There was:

- a very substantial wage overhang, which had to be wound back by the painful process of reductions in real unit labour costs;
- the external imbalance, with its on-going threat to price stability;
- related to this, the need to absorb a very significant fall in the real exchange rate; and
- the deregulation of financial markets, with its disruptive (although ultimately beneficial) effects on financial stability.

In an absolute sense, none of these problems precluded policy settings which would have made more progress on inflation, but they created an environment in which firm policy settings (and a continuing output gap) were needed just to hold the line on inflation. Real interest rates averaged 5.9 per cent during the 1980s. The practical question is: when were the specific opportunities to achieve price stability? Could it have been done in 1984, before the exchange rate shock of 1985 and 1986? Was there an opportunity in 1987 to press more strongly? The counterfactual is unknowable, but in

46. On the role of the then Treasurer and his influence on the Bank, it is interesting to read the full transcript of the 'they are in my pocket' speech, given in Gordon (1993, p. 10).

47. See Bade and Parkin (1982), Grilli, Masciandro and Tabellini (1991), and Cukierman (1993).

each of these periods, while there was a general desire to get inflation down, there was no sense of pressing urgency. Low inflation was not an overwhelming priority in the overall macro-policy picture.

Inflation was never seen to be 'out of hand' in the 1980s (as it was seen to be in, for example, the United States in 1979 and New Zealand in the mid 1980s – or, for that matter, in Australia in 1974). Even when it was high, it was always believed that steady pressure would erode it over time, as the various shocks which pushed it up receded (notably, the exchange rate fall of 1985/86). When the visiting Brookings economists reported on the Australian economy in 1984, monetary policy played a minor part in their analysis: their view was that 'unemployment is intolerably high in Australia and dramatic inflation fighting should not be a priority… Living with inflation is not the ultimate evil' (Caves and Krause 1984, p. 78). There was never a clear readiness to incur the significant output cost that was required to shift inflation down in a definitive way. 'People generally feel that inflation is bad but, for the most part, not so bad that they want the authorities to get too serious about eliminating it' (Fraser 1990a, p. 20). Even those who criticised policy for not containing inflation did so on the basis that there was a low-cost (in terms of lost output) panacea, of one kind or another. Corden (1989, p. 160) noted that, even with the Treasury's early-1980s 'inflation first' strategy, 'there were no costs but only benefits, from reducing inflation'. Then there was the promise of monetarism (at least in its rigorous form): a sufficiently emphatic commitment to low money growth would, more-or-less instantaneously, cause price expectations to fall and the economy would shift, more-or-less painlessly, to a low-inflation path. When this promise failed, there were the experiments with wage/tax trade-offs as circuit breakers. The attraction was clear: if everyone would simultaneously agree that inflation was going to be lower, then they could be (at least) as well off without the pain of a significant period of deflation (Fraser 1990c). Even inflation targets were sometimes put forward with the same promise: if everyone understood exactly the time profile of inflation reduction, it could be achieved painlessly. But by the late 1980s, the uncomfortable reality was clear: whether because of inflexible prices (e.g. wage contracts) or sticky price expectations, a sizeable output gap would have to exist for some time to persuade people that a world of low inflation had arrived. 'If inflationary expectations could be changed by decree, the economy could be shifted down the long-run Phillips curve to achieve lower inflation with unchanged real activity. But if inflation expectations cannot be changed by fiat, there may be a long, painful, slow grind of gradually wearing down inflation expectations by having the economy run at higher levels of unemployment' (Grenville 1989, p. 15).

The key to establishing price stability was that the 1990/91 recession provided an opportunity to shift price expectations down, and the monetary framework was ready (in a way it had not been in earlier recessions, such as 1982/83) to use the opportunity. Does this mean that the Bank's policies were 'opportunistic'? Central banks are quick to deny the pejorative overtones, but if this means simply that there are certain moments in the business cycle that lend themselves to progress on *structural* inflation, then this seems no more than simple common sense. 'Reducing inflation has tactical, as well as purely economic, aspects. With the economy turning down in 1990 and asset prices declining sharply, circumstances were conducive to getting inflation down and keeping it down. By the same token, it would have been inopportune to have tried to rein in inflation during 1985 and 1986, given the sharp fall in the Australian dollar' (Fraser 1991c, p. 13).

Was the monetary framework, as it had evolved by 1990, inherently more suited to seizing the opportunity? Australia began the period examined in this paper with a rule-based framework – M3 targets – which seemed to provide discipline on policy-makers and a clear accountable system to anchor price expectations. But it did not, in practice, provide discipline, nor did the Bank feel that it had the primary responsibility for achieving price stability. The check-list provided less discipline still. But it would be expecting too much of any rule-based framework to see it as the single-dimensional answer to price stability, providing easy solutions to the complexities of monetary policy. It does not provide an operational rule to guide day-by-day or month-by-month policy-making. An ideal rule should relate to the *operational instrument*: how else can it provide firm discipline on policy-makers, and provide the public with a method of monitoring the authorities on a continuing basis? But such a framework does not fit (and has never fitted) the real-world economy. Any practical framework will still be a mixture of rules with some discretion. The M3 rule relied on the stability of a single simple relationship and was susceptible to the breakdown of that relationship. The inflation target is more robust, because it focuses directly on the final objective. But no simple rule can handle the complexities of the economy and the variety of shocks which hit it. The current framework still requires difficult policy choices: it requires good forecasting; it provides no specific operational guidance; and there is no calibration on the operating instrument. At times, there will be difficult decisions to be made between inflation and economic activity. That said, the Bank has considerable confidence that low inflation can be maintained. Why?

- Most importantly, the painful step-down of inflation has been achieved. Whatever debate there might have been about the cost of reducing inflation, there is little argument about the value of keeping low inflation, once achieved.
- It should also be easier to maintain, as a fair amount of credibility has been built up, both from the established record of the past seven years, and from a monetary framework which has wide international acceptability.
- We have a better, more flexible institutional structure. The floating exchange rate is an important element, but there are many changes (spelt out in Grenville (1997)) which make the economy less inflation prone.
- Having been through the experience of the 1970s and 1980s (including financial deregulation, which was one element in the disruptive asset-price inflation of 1988/89), lessons have been learnt. The Bank has a better understanding of the relationship between the instrument of monetary policy (short-term interest rates) and the final objectives, with perhaps the greatest advance being the clarifying of the *time dimensions* involved in these objectives – in the long run, all monetary policy can do is achieve price stability; in the short run, it may also be able to help in cyclical stabilisation.
- The Bank now has a greater feeling that it (rather than other 'arms' of policy) is responsible for inflation. The Bank is now centre-stage on inflation control, separated to some extent from other elements of macro policy, with clearly defined independence and a 'place to stand', provided by the inflation target.

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