# Economic and Financial Research in the Reserve Bank in 2000

#### Introduction

Research at the Bank covered a wide range of topics over the past year, including the performance of the Australian economy in the 1990s, and issues relating to: the inflation-targeting framework for monetary policy, understanding Australian macroeconomic relationships, the efficiency of financial markets, and the sources of the malaise in the Japanese financial sector. The results of the research were made available through the Bank's Bulletin, the Research Discussion Paper series, and in the annual Conference Volume. This article provides an overview of the research published in 2000.1

## The Australian Economy in the 1990s

The beginning of a new decade presents a natural opportunity to take stock, and this provided the motivation for the Bank's annual conference, 'The Australian Economy in the 1990s'. Bank staff presented three papers at the conference; a further five papers were presented by eminent Australian and international economists.

David Gruen and Glenn Stevens provided an overview of Australian macroeconomic performance in the 1990s - a performance that was in many ways superior to that of the previous two decades, with strong productivity growth and low and stable inflation. They also examined major policy developments in the decade, including the introduction of the inflation-targeting framework for monetary policy, the public-policy debate about the rise in foreign debt, and the changing role for fiscal policy. Malcolm Edey and Luke Gower examined trends and policies for national saving. They discussed the widely held proposition that Australian national saving is less than its optimum, and examined governmental responses to this perceived shortfall in saving. Marianne Gizycki and Philip Lowe examined both the resilience and competitive performance of the financial system, arguing that the deregulation of the financial sector in the 1980s now looks much more successful than it appeared a decade ago. They argued that competitive pressures brought to the marketplace by new entrants rather than existing incumbents - have delivered significant benefits, including sharp declines in housing-loan margins and retail commissions on share transactions. The

<sup>1.</sup> Papers referred to in this article are listed in the Appendix. Copies of these papers are also available on the Bank's website at www.rba.gov.au.

remaining papers at the conference examined the unexpectedly good performance of the United States' economy in the 1990s, as well as further aspects of the Australian economy, including assessments of microeconomic reform and developments in the labour market. The conference concluded with a discussion of the prospects for the Australian economy in the next decade.

#### The Monetary Policy Framework

A series of papers examined different aspects of monetary policy and inflation targeting. Monetary policy in Australia aims to achieve an average inflation rate of 2-3 per ent over the medium term. One of the arguments for targeting a small positive inflation rate rather than zero inflation is the presence of downward 'stickiness' in money wages. This argument rests on the idea that, in response to some shocks, it may be necessary for real (inflation-adjusted) wages to fall, at least in some parts of the economy for a period of time. With a small positive rate of inflation, this adjustment should occur with less economic disruption since workers' money wages may not need to fall. Jacqueline Dwyer and Kenneth Leong analyse a new high-quality dataset on wage changes for a large number of individuals in Australia. They find evidence of significant downward stickiness of money wages, and suggest that this supports the average 2-3 per cent target rate of inflation.

Chris Ryan and Christopher Thompson investigate another aspect of the inflation target. They ask whether monetary policy should target headline inflation, as it currently does, or instead target domestically sourced or non-traded inflation. These alternate measures of inflation differ because exchange rate movements have a significant impact on import prices, and via them on headline inflation. Ryan and Thompson find that there would be no clear gains to changing the nature of the inflation target. They argue that in a flexible inflation-targeting regime, policy-makers are able to 'look through' the transitory effects of exchange rate movements on the headline inflation rate, and focus instead on what they anticipate the rate of inflation will be when these transitory effects have passed.

Two further research papers aim to shed light on an unresolved puzzle in the study of monetary policy decision-making: the significant differences between the paths of policy interest rates derived from models of the economy and those observed in practice. In most models, the 'optimal' path of policy interest rates is very variable, with frequent changes in direction, while policy interest rates observed in practice tend to move in a sequence of small steps in the same direction followed by an extended period of no change.

It is often suggested that these differences between actual and model-generated interest rate paths arise because model results are generated assuming that the policy-maker understands the 'true' nature of the economy, whereas in reality this can never be the case. Both of the papers that address this puzzle focus on aspects of this difference between models and reality. The first paper, by Guy Debelle and Adam Cagliarini, shows that uncertainty about the estimated parameters of a model of the economy does not resolve the puzzle. Their paper does show, however, that uncertainty specifically about the sensitivity of output to interest rates can reduce the variability of model-generated interest rates somewhat. The second paper, by Adam Cagliarini and Alexandra Heath, examines a more general form of uncertainty under which policy-makers consider that a range of outcomes are possible, but are not in a position to assess the relative likelihood of these outcomes. They show that if policy interest rates are changed only when current settings are not consistent with any of the outcomes in the range, the result is a path for interest rates with some of the features of

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actual interest rate paths, including extended periods of no change.

#### Understanding Macroeconomic Relationships

Research aiming to improve our understanding of the important interrelationships in the macroeconomy forms a core part of the responsibilities of all central banks. Three research papers written in 2000 examined these interrelationships.

Building on work by many Reserve Bank economists over several years, Meredith Beechey, Nargis Bharucha, Adam Cagliarini, David Gruen and Christopher Thompson present a small model of the Australian economy. The model contains five estimated equations – for real non-farm output, the real exchange rate, import prices, unit labour costs and consumer prices. It is designed to be consistent with the main macroeconomic relationships in Australia over the past fifteen years, and can be used to examine macroeconomic developments over the short to medium run, particularly the effects of changes in monetary policy on the economy.

An important issue for policy-makers is the extent to which 'leading indicators' can help to forecast the likely future path of the economy. Andrea Brischetto and Graham Voss examine this issue using leading indicators for Australian economic activity. They find that although leading indicators have some ability to predict economic activity in the near future, they do not offer significant advantages over other forecasting methods.

The last few years of the 1990s in Australia were characterised by strong growth in both household wealth and private consumption expenditure. Alvin Tan and Graham Voss have examined the extent to which the rising level of wealth appears to be responsible for the robust performance of consumption. Their results suggest that the link is an important one, with rises in both financial wealth (such as shares) and non-financial wealth (mainly housing) contributing significantly to the growth in private consumption over this time.

#### Efficient Markets, Japanese Banking Problems, and Keynes and Australia

Three final papers in the Bank's Research Discussion Paper series in 2000 cover three disparate subject areas. The first paper, by Meredith Beechey, David Gruen and James Vickery, discusses the efficient market hypothesis. This hypothesis, which states that financial-market asset prices should 'fully reflect all available information', is the starting point for most analysis of the behaviour of financial markets. The paper argues that many of the features of financial market behaviour accord with the predictions of this hypothesis. Other features, however, seem much harder to reconcile with the efficient market hypothesis. Probably the most important of these is the capacity for asset markets to be subject to substantial misalignments at times, which is likely to lead to inefficient resource allocation.

The second paper concerns itself with the origins of the decade-long stagnation of the Japanese economy. Luke Gower investigates the problems in the Japanese banking sector in the 1980s, and argues that banks had strong incentives at the time to seek out lower-quality borrowers which were more exposed to developments in asset-market prices. When land and stock prices fell precipitously in the early 1990s, the balance sheets of these borrowers were severely affected, which he argues played a major part in the malaise of the Japanese financial system over the course of the 1990s.

The third paper, by Donald Markwell, an academic from Melbourne University, concerns itself with the many and varied interactions between John Maynard Keynes and Australia over the period of huge economic and social turmoil from the end of World War I to just after the end of World War II, when Keynes died. 'JM Keynes' as Markwell notes 'was more important to Australia than Australia was to him'. The paper was originally presented as a seminar at the Bank in 1985; it was released in 2000 to make it available to a wide readership.

#### **Appendix: Research Material Released in 2000**

#### **Conference Volume**

The Australian Economy in the 1990s, edited by David Gruen and Sona Shrestha, contains papers prepared for the Bank's annual conference held in July 2000. Members of the Bank's staff, David Gruen and Glenn Stevens, Marianne Gizycki and Philip Lowe, and Malcolm Edey and Luke Gower, prepared papers for the conference. Two papers were written by international economists, J Bradford DeLong from the University of California, Berkeley and Charles Bean from the London School of Economics; three papers were written by senior Australian economists, Peter Dawkins from The Melbourne Institute of Applied Economic and Social Research, Peter Forsyth from Monash University, and Robert Leeson from Murdoch University. The volume also contains the text of the after-dinner address given by Paul Kelly of The Australian, and contributions to the panel session on prospects for the future, from J Bradford DeLong, Rob Ferguson of BT Financial Group, Ross Gittins of The Sydney Morning Herald, and Bob Gregory of the Australian National University. The papers in the Conference Volume are:

- J Bradford DeLong, 'What Went Right in the 1990s? Sources of American and Prospects for World Economic Growth'.
- David Gruen and Glenn Stevens, 'Australian Macroeconomic Performance and Policies in the 1990s'.
- Charles Bean, 'The Australian Economic "Miracle": A View from the North'.
- Robert Leeson, 'Inflation, Disinflation and the Natural Rate of Unemployment: A Dynamic Framework for Policy Analysis'.
- Marianne Gizycki and Philip Lowe, 'The Australian Financial System in the 1990s'.

- Paul Kelly, 'The Politics of Economic Change in Australia in the 1980s and 1990s'.
- Peter Forsyth, 'Microeconomic Policies and Structural Change'.
- Malcolm Edey and Luke Gower, 'National Saving: Trends and Policy'.
- Peter Dawkins, 'The Australian Labour Market in the 1990s'.
- J Bradford DeLong, Rob Ferguson, Ross Gittins and Bob Gregory, 'Prospects for the Australian Economy in the First Decade of the New Century'.

#### **Research Discussion Papers**

- 2000-01 Meredith Beechey, David Gruen and James Vickery, 'The Efficient Market Hypothesis: A Survey'.
- 2000-02 Andrea Brischetto and Graham Voss, 'Forecasting Australian Economic Activity Using Leading Indicators'.
- 2000-03 Luke Gower, 'Some Structural Causes of Japan's Banking Problems'.
- 2000-04 Donald J Markwell, 'Keynes and Australia'.
- 2000-05 Meredith Beechey, Nargis Bharucha, Adam Cagliarini, David Gruen and Christopher Thompson, 'A Small Model of the Australian Macroeconomy'.
- 2000-06 Chris Ryan and Christopher Thompson, 'Inflation Targeting and Exchange Rate Fluctuations in Australia'.
- 2000-07 Guy Debelle and Adam Cagliarini, 'The Effect of Uncertainty on Monetary Policy: How Good are the Brakes?'.

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2000-08	Jacqueline Dwyer and Kenneth Leong, 'Nominal Wage Rigidity in Australia'. Alvin Tan and Graham Voss,	2000-10	Adam Cagliarini and Alexandra Heath, 'Monetary Policy-making in the Presence of Knightian Uncertainty'.
	'Consumption and Wealth'.		