

Lowy Institute Paper 14

quiet boom

HOW THE LONG ECONOMIC UPSWING IS
CHANGING AUSTRALIA AND ITS PLACE IN
THE WORLD

John Edwards

Lowy Institute Paper 14

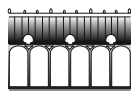
quiet boom

HOW THE LONG ECONOMIC UPSWING IS
CHANGING AUSTRALIA AND ITS PLACE IN
THE WORLD

John Edwards

LOWY INSTITUTE
FOR INTERNATIONAL POLICY

First published for
Lowy Institute for International Policy 2006



LONGUEVILLE
MEDIA

PO Box 102 Double Bay New South Wales 2028 Australia
www.longmedia.com.au
info@longmedia.com.au
Tel. (+ 61 2) 9362 8441

Lowy Institute for International Policy © 2006

All rights reserved. Without limiting the rights under copyright reserved above, no part of this publication may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (including but not limited to electronic, mechanical, photocopying, or recording), without the prior written permission of the copyright owner.

Cover design by Holy Cow! Design & Advertising
Printed and bound in Australia
Typeset by Longueville Media in Esprit Book 10/13

National Library of Australia
Cataloguing-in-Publication data

Edwards, John (John Ker).
Quiet boom.

Bibliography.
Includes index.
ISBN 9781921004254.

ISBN 1 921004 25 8.

1. Australia - Economic conditions - 1990-2001. 2. Australia - Economic conditions - 2001- . 3. Australia - Foreign economic relations. I. Lowy Institute for International Policy. II. Title. (Series : Lowy Institute paper ; 14).

330.994

John Edwards is chief economist for HSBC Bank for Australia and New Zealand. Earlier in his career he was a reporter in Sydney, Canberra and Washington for *The Australian Financial Review*, *The Australian* and *The Sydney Morning Herald*. From 1991 to 1994 he was senior economic adviser for Treasurer and then Prime Minister Paul Keating. John has published five books, including a best selling biography of the former prime minister, Paul Keating. His most recent book is a reinterpretation of Australia's wartime prime minister, *Curtin's Gift*. He holds a PhD in economics from George Washington University.

Executive summary

The Australian economy is now in the sixteenth year of uninterrupted expansion, the longest boom in its history. In the last fifteen years wealth has more than doubled, output has increased by nearly two thirds, the capital stock by more than half, labour productivity by a little under half, and the number of jobs by a quarter. The growth of income per person has been faster in Australia over the period than in Canada, the United States, the United Kingdom or New Zealand. The Australian economy has become more closely integrated into the global economy, with exports and imports increasing as a share of GDP, and Australian businesses often now investing more in the rest of the world than foreign businesses invest in Australia. The performance of the economy since 1991 is all the more remarkable because during the previous twenty years it experienced five recessions, two of them very severe.

This Paper asks where the long expansion came from, what its defining characteristics are, and where it is going. Reviewing Australia's recent economic history it argues that the long upswing had its origin in the economic reforms of the nineteen eighties and early nineteen nineties, and especially in the change in wage-setting. More recently Australia's economic success has been grounded on its closer integration into a global economy which has become bigger, more diverse, and more congenial as Australia has become more completely a part of it.

Moving towards the third decade of continuous expansion the economy is now encountering new challenges. Twenty years ago

the issues confronting Australia were reducing inflation and wages growth, reducing unemployment, enhancing competition, discovering a confident purpose in the world economy, and renewing Australia's belief in its capacity for economic success. In the course of the long boom all those issues have been addressed. The new challenge is not to overcome failure but to entrench success. Productivity growth in the last six years has slipped compared with the previous six years, and so too output growth, the growth of per capita income, and the growth of export volumes. The gains from reducing unemployment and overcapacity, from increased competition and deregulation of product and labour markets, have been taken. The gains from more market reforms may be worthwhile but will be marginal. Output growth will likely be permanently lower with lower workforce growth, increasing the importance of education, training, innovation and research and development — all objectives currently low on the list of national economic priorities. With the long sequence of large current account deficits in the last two decades Australian liabilities to the rest of the world now match nearly six tenths of output, and will continue to grow faster than GDP unless and until Australia can run a persistent surplus of exports over imports. While the global economy has become more congenial and its centre of gravity is moving towards the Australian time zone, the impact of a prolonged commodity boom poses some difficult issues for the structure of the Australian economy. These are formidable challenges. The long run of success has prepared Australians to more confidently meet them, but also obscured their urgency.

Contents

Executive summary	vii
List of figures	x
List of acronyms	xi
Chapter 1: The quiet boom	1
Chapter 2: Where it came from	17
Chapter 3: The long expansion	37
Chapter 4: Aspects of the long expansion	47
Chapter 5: Where Australia is going next	75
Chapter 6: The challenge	85
Chapter 7: Conclusion	97
Notes	99
Bibliography	107
Lowy Institute Papers: other titles in the series	111

List of figures

1. GDP, percentage change	4
2. GDP per capita	5
3. Employment	6
4. Unemployment	6
5. Business investment as a share of GDP	14
6. Consumer price inflation	41
7. Australian and US GDP growth	42
8. House prices	43
9. Dwelling construction share of GDP	44
10. Labour productivity level	48
11. Multifactor productivity level	49
12. Tariff protection level	51
13. Exports as a share of GDP	53
14. Terms of trade	53
15. Export volumes and values	65
16. Trade and income balances as share of GDP	69
17. Net investment position	70
18. Gross national saving to GDP	87
19. Foreign debt compared to foreign equity	89
20. Saving and investment to GDP	90
21. Current account compared to GDP	91

List of acronyms

ABS	Australian Bureau of Statistics
ACTU	Australian Council of Trade Unions
AIRC	Australian Industrial Relations Commission
APEC	Asia–Pacific Economic Cooperation
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GST	Goods and Services Tax
IMF	International Monetary Fund
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of Petroleum Exporting Countries
RBA	Reserve Bank of Australia
RBNZ	Reserve Bank of New Zealand
SDRs	Special Drawing Rights
WTO	World Trade Organisation

Chapter 1

The quiet boom

The Australian model

At the beginning of the last decade of the twentieth century something happened in Australia that had never happened before. It was a subtle, slow thing, and it was already there for quite a while before people noticed it. Even as it became more obtrusively apparent it was acknowledged only reluctantly, and often distrusted or denied. Continuing through that decade and into the next, it proved to be an economic expansion so sustained, so deep and widespread in its impact, so novel in its characteristics, that the lives of Australians, their hopes and plans, their work and leisure, their wealth and incomes, their politics, the way they saw themselves and their country and the ways its related to other countries, even the way they thought about their past, began to be changed by it. Now entering its sixteenth year, the expansion is far from over.

It has not been a turbulent episode in Australian history, but the quiet transformation it has permitted warrants reflection. Why has

the boom persisted so long, compared to preceding upswings? Is it a single, definable episode, or a sequence of separate episodes? Is it part of a longer story, in which Australia has merely resumed the familiar, steady prosperity of the years following World War Two after a few decades of dislocation? How much of it is unique to Australia, and how much the local manifestation of a global phenomenon? How much of it is merely a catch-up to advances elsewhere? How much depends on the passing luck of a global commodities boom or on the illusions created by increasing household and national indebtedness, and how much on deeper and sustainable changes in the way Australia works? How much of the upswing is due to policy, how much to the market, how much to the rest of the world, how much to luck? Is there now an Australian economic model, which might be defined, cherished, entrenched, and perpetuated?

The story of the boom is worth pondering, not only because it has changed Australia and the Australians, not only because knowing the story may help Australians to recognise the strengths and weaknesses of their circumstances, but also because it has resonance elsewhere. Australia accounts for less than one fiftieth of the economic output of the rich countries, and not much more than one hundredth of global output. All of its people are less than half of one per cent of the world's people. Alone among the world's nations it has a continent to itself, but for all its size it is on the periphery of the global vision. It is not a trouble spot. It likes to think of itself as an upper-middle power in the world, but does not stridently advance its claims. It goes about its business without ostentation or pomp. Its capital, Canberra, is regarded in other countries foreign ministries as a pleasant, civilised, undemanding posting, a reward for mid level officers who have done hard time elsewhere, or for worthy officials towards the end of their careers. There is no correspondent for the *New York Times*, *The Washington Post* or *The Wall Street Journal* based in Australia, because for their readers there is not often a story to cover.

Yet the Australian experience of the last few decades is now of increasing interest elsewhere. Reporters from *The Wall Street Journal*, *The Financial Times*, the *Herald Tribune* and *CNN* visited to find out

why Australia thrived during the Asia financial crisis, when so many of its neighbours did not. *The Economist* sternly predicted that the collapse of Australia's long house price boom would foretell a global downturn. The magazine had moved on to new alarms by the time it quietly ended, but the *The Wall Street Journal* then thought Australia's painless exit from the house price boom suggested the US might do the same.

Economic policy makers elsewhere find Australia's experience interesting. In the global debate on whether it was computers or merely the production of computers which accounted for increased US productivity, for example, the OECD noted that Australian productivity was boosted by new technologies which it neither invented nor produced. Australia's central bank paralleled the US Federal Reserve through much of the nineteen nineties but then influenced the global debate on monetary policy toward a recognition that asset price inflation was important, as well as consumer price inflation.¹ Visiting OECD and IMF delegations now confess there is little instruction they can offer, and instead instance Australia's successes to less correct economies elsewhere. In the hallways of meetings of the IMF, the World Bank, the G20, the Financial Stability Forum and APEC Australian officials are often asked why Australia, of which so little was expected, is doing so well.

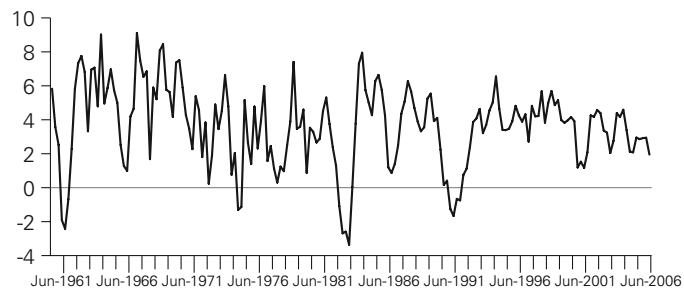
Chilean finance minister Nicolas Eyzaguirre Guzman did not intend his compliment to be taken literally when he told Reserve Bank of Australia Governor Ian Macfarlane in November 2005 that Chile now followed the 'Australian economic model', but there is certainly a sense in which the Australian experience can illuminate the experience of other small, open economies sailing in the vast sea of the global economy. It is meaningful also for much larger economies — for the United States, which in important respects Australia resembles in microcosm; for the United Kingdom, with which Australia shares such a deep, secret affinity that the economies of the mother country and the former colony have become more akin as the actual connections between them have become more tenuous; for other countries' economic relationship with China, which will dominate the region of which Australia is an increasingly

integrated member; and for the global economy as a whole, in which Australia is an unreserved participant, exemplar, and beneficiary.

Duration matters

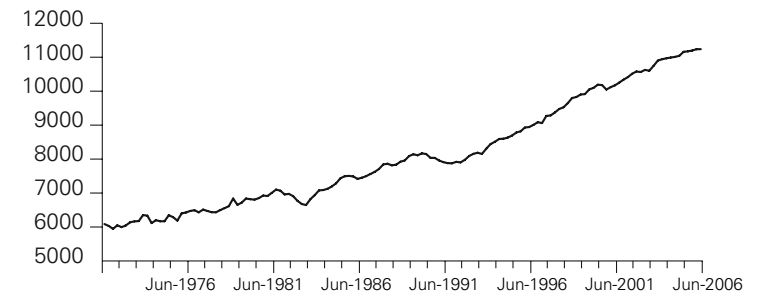
In the two centuries following the beginning of European settlement in 1788, Australians became accustomed to the booms and busts of a small, volatile developing economy. A tiny European population gifted with the laws of England found vast lands for grazing sheep and plentiful deposits of gold. In the first hundred years growth was sometimes so spectacular that both population and output could double in a decade. Beginning in the late nineteenth century, however, Australia's fortunes turned. There was a long slump, World War One, another slump from which Australia had barely recovered before the misery of the Great Depression of the late twenties and early thirties, and then World War Two. By the time the fighting stopped, Australia and the world were much changed. Twenty years of prosperity followed, punctuated by only mild downturns. Australia was doing well, though it slipped against comparable economies which were doing even better. But there was then a decade of economic difficulty in the nineteen seventies, a deep recession at the beginning of the nineteen eighties, a decade of turbulent reform, and then another deep recession.

Figure 1
GDP Growth
chain volume, seasonally adjusted, % change over 4 quarters



Two hundred years after Captain Phillip and the First Fleet arrived in Sydney Cove Australians were accustomed to drought, flood and fire, to booms and busts. They had tried many economic theories, from penal serfdom, state government socialism, and protectionism, to free trade, uncaring capitalism, and dizzy speculation — sometimes apart, sometimes together. They had seen success and failure. They had experienced every circumstance except the one economic circumstance they most wanted and now least expected: a very long period in which everything simply got better and better. Then in the middle of 1991, unheralded and unnoticed, Australia began what would prove to be the longest boom in its history.

Figure 2
GDP per capita
\$ 2004/05 sa



It was not in the least dramatic. Growth was not on average faster than it had been in times past. On the contrary, it was slower than it had been in the eighteen hundreds, slower than nineteen fifties and sixties, and slower than it had been for much of the nineteen eighties. Incomes rose, but not very much faster than they had for much of the previous decade. Industries and work were changing, but they had always been changing and the most pertinent changes apparent by the end of the twentieth century had begun well before the long boom.

But something new was certainly happening. That most obvious difference was the durability of the expansion. It began tentatively enough in the last quarter of 1991, slowed sharply in the middle of

that decade, picked up speed during the Asian financial crisis of 1997 and 1998, was checked by the impact of a new goods and services tax in 2000, and then continued on despite a global downturn lead by the United States, and despite a prolonged drought which sharply cut farm production. It survived a housing boom and a housing bust in the new decade, and it is now digesting the impact of a doubling of the price of its exported metals, minerals and energy. Its pace varied but there was only the occasional quarter in which output was lower than the previous quarter. In the fourth quarter of 2006 the expansion entered its sixteenth year, with no sign of stopping. Australia had not

Figure 3

Employment
'000 sa

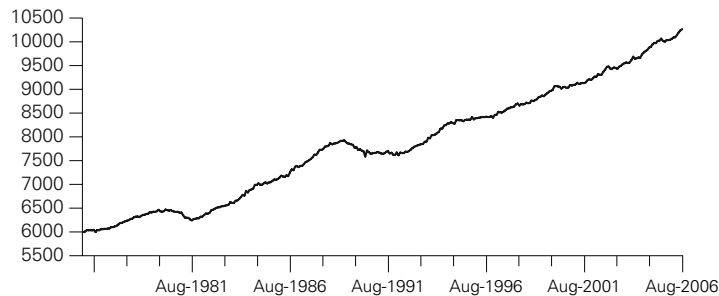
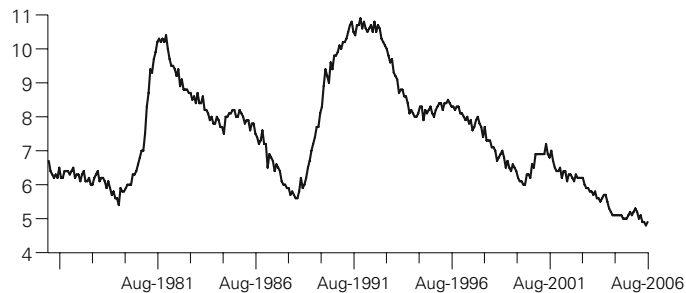


Figure 4

Unemployment
Percent sa



experienced such a long upswing in the previous century, or very likely ever. Many other countries were also doing well. The UK economy came out of recession in the same quarter as Australia, December 1991, and its upswing has continued as long. Ireland grew much faster than Australia but stumbled during the global downturn in 2001 and 2002. Few comparably developed economies did as well for as long as the Australian economy at the end of the twentieth and into the twenty first centuries. Between 1991 and 2005 real income per head increased 32 % in Canada, 35 % in the US, 36 % in New Zealand and 38 % in the UK, the four Anglo economies to which Australia is often compared. In Australia real income per head increased 43 % over the period, level pegging Norway.²

Australian economic growth had often been quick before. What was new and distinctive was the persistence of the expansion. Because the upswing was so persistent, it began to change Australia in quiet, subtle ways which became apparent only gradually.

Persistence meant, for example, that many more Australians had paying jobs. During recessions unemployment usually increases very quickly, but it falls only slowly during expansions. Consistent growth is what matters for jobs. By the fifteenth year of the boom well over two million more Australians had paying jobs than in 1991. The increase had not been rapid, but it had endured. The total number of employees had increased by a quarter. Jobs increased by half as much again as in the previous fifteen years, book ended as they had been by recessions. By 2005 unemployment was back down to a rate not seen for well over a quarter of a century. The number of people with jobs was a higher share of the total population than at any time in the past half century. For the first time since the nineteen sixties jobs were easier to find than workers to fill them.

With more jobs and higher pay incomes rose. After-inflation or real income per head increased over 40 % in the 15 years to 2006, compared to an increase of less than 30 % in the previous 20 years.³ But the distinctive element in the boom was not the rise in incomes. It was the rise in wealth. That, too, was because of the length of the boom. Australia repriced its assets. In the fifteen years to the middle of 2005

the value of existing Australian houses more than doubled, the total value of the housing stock increased two and half times, the price of Australian shares on average trebled and the value of companies listed on the Australian stock exchange increased six fold. Australian per capita real incomes increased 41 % over the 15 years. Per capita real wealth more than doubled. Private real wealth increased far more in those 15 years than it had in the previous 30 years.

Households were changed by the boom, and so were businesses. The profit share of incomes rose continuously over the fifteen years, and by 2005 was higher than it had been for over fifty years. Wage income more than doubled over the fourteen years. Profits increased thirteen fold. The big profits and the long run of prosperity encouraged higher business investment as well as permitting higher profits. By 2005 business investment accounted for a much higher share of output than it had for half a century.

It is not only the endurance of the upswing which is important in changing Australia and its relation to the rest of the world. It is also the nature of the expansion. The Australian economy grew quite quickly through the first century of European settlement and again after World War Two. But over the whole period the expansion of the economy was not very much more than could be explained by the increasing number of workers, the increasing amount of capital, the opening up of new land and the discovery of metals and minerals.⁴ From the first decade of the twentieth century, by contrast, output in the United States had grown markedly faster than inputs. In the long upswing which began in 1991 Australia also began to experience substantially more output growth than could be explained by the growth of inputs. It was using labour, capital and resources more efficiently and cleverly.

The nature of Australia's economic relationship with the rest of the world was also changing. As a colony, as a capital-hungry commodity exporter, as a nation of migrants, Australia since European settlement had always been closely connected to the economies of other countries. By 2005 these connections were thicker, more varied, richer, and more complex than ever before. At the beginning of the upswing exports and imports together were around one third of GDP. In 2005 they were

equivalent to 40 % of GDP. The level of foreign investment in Australia had more than doubled over the fifteen years. But the really remarkable change was that the level of Australian investment abroad had increased five fold, and was rapidly gaining on the level of foreign investment in Australia. Though foreign investment in Australia was quite high, in some years Australian direct investment abroad was much higher.

After fifteen years of uninterrupted growth most Australians are much richer, more productive, and very much more a part of a global economy. Unlike their parents there are many Australians in their early thirties, with children, a house, a car and a well established career, who have not experienced a recession in their working lives. In politics the long run of prosperity is reflected in the long incumbency of Prime Minister John Howard. Elected first in 1996, Howard's Liberal National Party coalition government was re-elected in 1998, in 2001 and in 2004. Howard became the second longest serving Prime Minister in Australian history, after Robert Menzies. By 2005 the Labor opposition had had five leadership changes in less than a decade. It does not explain it all, but the long run of prosperity explains a good deal of the government's electoral success, and federal Labor's failure.

The downside

There are less celebrated consequences of the boom, also the slowly accumulated result of its long duration.

The rise in employment has reduced poverty but incomes have increased more at the top than in the middle, and wealth has increased much more than income. Australia has become a more unequal society. The inequality of before tax incomes is mitigated by increased employment and income redistribution through the federal budget. But there is no mitigation of wealth as opposed to income disparities, or of the opportunities for wealth building provided by higher before-tax incomes and the favourable tax treatment of financial investments geared with loans. Australia has a progressive income tax system but no wealth taxes or inheritance taxes and in 1999 it legislated to cut the tax on capital gains. As a result of successive concessions, by 2006

superannuation accounts were very lightly taxed, both for retirees and their heirs. Since a high degree of equality was the most striking and cherished characteristic of Australian society, the widening inequality of wealth and life opportunities poses questions about the kind of country it is becoming. And since equality of opportunity had always been one of the sources of economic strength, the steady decline of equal access in education and health care threatens to abridge not only individual fulfillment but also economic potential.

Over the first fifteen years of the upswing Australia has become vastly more indebted to the rest of the world. Australia borrowed from the rest of the world twice as much capital in the fifteen years to 2005 than it had in the fifteen years to 1991. Net foreign liabilities trebled. In 1991 net foreign liabilities were equivalent to less than half of that year's output of goods and services. By 2005 net liabilities to the rest of the world were equivalent to 60 % of GDP and the IMF expected them to increase to over 70 % of GDP by 2010. As we shall see, foreign liabilities will continue to increase faster than GDP unless and until Australia runs a persistent surplus of exports over imports — a circumstance it has not managed for over three decades.

Much of the debt was owed by Australian banks, whose offshore borrowing accounted for most of the capital inflow in the late nineties and the early years of the new decade. For the banks the counterpart of their borrowing from abroad was their lending to Australian households. Because interest rates remained low and Australians became confident prosperity would continue, household debt has increased six fold. There is thus a link between the extent of household debt and the size of bank offshore liabilities, which in turn largely finance Australia's current account deficit and account for the greater part of Australian overseas debt. If there is an economic downturn or house price crash serious enough to threaten the ability of any significant share of Australian households to service their mortgage debt, it would affect the credit rating of Australian banks. It would thus have an immediate impact on Australia's ability to finance its current account deficit in the manner it has over the last decade. There is a certain vulnerability at the heart of the Australian economic miracle, which we will explore.

Refreshed by globalisation

By the beginning of the 21st century the swift internationalisation of Australian business, the rise in trade, the vast increase in the number, complexity and diversity of links between the Australian and other economies signalled a new phase in the long expansion. Through its first decade it could reasonably be said that the upswing owed a great deal to the economic reforms of the eighties and early nineties. Tariff cuts and the float of the currency and banking deregulation in the eighties opened new opportunities at the same time as they sharply increased competition in the Australian economy. The switch from wage arbitration to enterprise bargaining at the beginning of the nineties allowed the redeployment of labour just as cheap new technologies in communications and information technology were offering the opportunities to reorganise production, distribution and exchange.

But while these policy changes could help explain a decade of superior growth as the Australian economy became more efficient and productive, by 2006 changes made twenty years before were no longer a plausible explanation of contemporary success. Globalisation has taken over. Increasing the exposure of the Australian economy to the rest of the world in the nineteen eighties coincided with a new and vastly more powerful phase of economic change in the global economy. China's growth is part of that story but only a part of it. Australia has found contemporary trends in the global economy particularly congenial. The price of its exports has been increasing much faster than the price of its imports. New technologies are well suited to its big service sector. Its strong institutions, diverse population and pleasant lifestyle have proved to be a useful competitive advantage, and the pivot of global economic activity has moved towards its own time zone. Australia's increasing participation in the global economy, itself driven by powerful and long term forces, is now helping to sustain a robust expansion of indefinite duration.

It follows that in the next twenty years the pace and nature of growth in China, India and Indonesia will influence Australia's prosperity. So too new technologies will determine the direction of Australian industry,

and more often than not these new technologies will be created and commercialised elsewhere and adapted by Australian industry rather than be created by it. Global climate change will continue to change Australia's climate. Recognition of this will increasingly frame the Australian political debate over the coming decade. There is now little chance of a large scale war. By its nature terrorism may cause temporary consternation but unless the major powers react recklessly to terrorism it will not injure global growth. There is always the risk of a pandemic which may at least temporarily interrupt global growth, but the most sensible scenario is that industrialisation and rising incomes in China, India, and perhaps Indonesia will drive a doubling of global economic output over the next quarter century. The global economy, as the US National Intelligence Council reported in 2005, will increasingly have an Asian face.⁵ Two hundred years ago the weight of the global economy was as far away from Australia as it is possible to be. In coming decades it will continue to move closer to Australia, and further away from Europe and North America.

There is widespread agreement in Australia that friendship with the United States is the foundation of Australia's foreign and defence policies. But friendship with the United States is now a poor guide to how Australia should manage its role in the global economy. With the collapse of the Soviet Union the US found greater freedom of action in international security affairs, but the same was not true of global economic affairs. The US economy did well but even so by 2005 it accounted for a markedly smaller share of world GDP than it had half a century before. It had become more integrated into and dependent upon the global economy, with exports and imports higher as a share of GDP, an unprecedentedly large current account deficit largely financed by foreign central banks, and with much more foreign ownership of US businesses than US ownership of foreign businesses. China's economy in 2006 is already half the size of the US economy, and it will likely be bigger in a few decades. United Europe is of roughly equal size to the US.⁶

The US is often still the biggest single influence in global economic affairs, but it has become less dominant as the global economy has

itself expanded. To the extent there is global economic rule making it depends on shifting coalitions of national economies and business lobbies. In security matters the alliance with the US will remain the most important factor in Australia's decisions. In global economic affairs, however, Australia has to find friends where it may. Recognition of this is apparent, for example, in the Howard government's decision to seek bilateral free trade agreements with willing partners, and in efforts from time to time to distance itself from US views on Taiwan and China. In the years to come it may well face Australia with the choice of joining an Asian economic group which excludes the United States, or becoming isolated within the region.

New directions

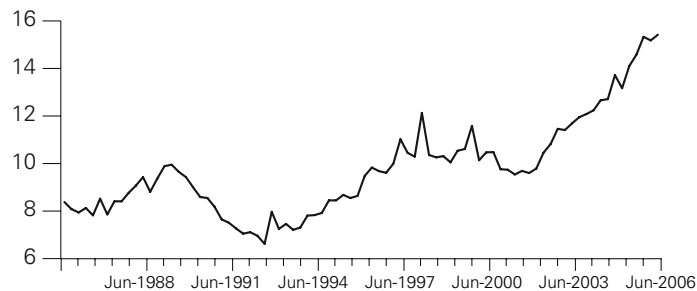
Fifteen years on, the long boom is changing character. In the financial year 2004/05 labour productivity actually fell, the first decline in 20 years. It rebounded the following year, but the trend in growth of productivity is now well below that of the second half of the previous decade. At over 6 % of GDP the current account deficit is as high as it has been for over half a century, despite cheerful official predictions a few years earlier that Australia had turned a corner in its balance of payments. Household debt tops 140 % of household disposable income. They began to pick up in 2006, but even so export volumes were only a little bigger than they had been at the beginning of the decade. Output growth has slowed well under the average outcome of the last fourteen years. In 2004 and 2005 GDP growth was below 3 %, compared to an average of 3.7 % for the whole expansion from 1991 to 2005. In the year to June 2006 output growth dropped to 1.9 %, the lowest outcome since an unforeseen collapse in house construction caused a sharp downturn at the turn of the decade.

Some of the slowdown is temporary, but some will be permanent. There will be fewer additional workers in future, partly because the number of job seekers has fallen and partly because the number of young people entering the workforce will no longer exceed the number of old people leaving it. Unless each worker's output increases more than in

the past, or many part time workers became full time workers, or many people not in the paid workforce decide to join it, the growth of output (though not necessarily the growth of output per head) will slow. With many of the enhancements in productivity allowed by changed labour organisation now fully exploited, however, it will be hard to sustain labour productivity growth at the same rate as the past — let alone increase it. Rules and practices might be modified to encourage more people to join the workforce or to remain in it longer, but the difference will be marginal. In 2005, both Treasury Secretary Ken Henry and Reserve Bank Governor Ian Macfarlane declared that output growth henceforward would be on average slower than in the past.

Figure 5

Business investment as a share of GDP
% volumes



But at the same time powerful new impulses demonstrated that the transformation of the Australian economy still has a very long way to go. Rising from the beginning of the new decade, real business investment reached 15% of GDP in 2005 — far and away the highest share in half a century of comparable data. In the height of the late nineteen eighties boom, by comparison, business investment had reached only 10% of GDP. The big upswing in business investment, which was particularly evident in mining, manufacturing, transport, and business services, meant not just new machines and buildings, but suites of new technologies incorporating new materials, new processors, new techniques of production. It promised another lift in output growth,

labour productivity and product development in later years. Just as the business investment booms of 1988/89 and 1995/96 had given new impulse to development, so too the business investment boom in the middle of the new decade is both adding to productive capacity and changing its nature.

The change within is complemented by a change without. China has decisively overtaken the US as Australia's second biggest export market, and at the same time China has become the epicenter of East Asian growth. Commodity prices have increased while manufacturing prices have fallen.

As the long boom moves toward its third decade Australia is again changing. But can it change enough to repair the flaws which fifteen years of growth have exposed? At some point Australia must begin running a permanent surplus of exports over imports, or one day Australians will no longer own their country. The growth rate will certainly slow, with falling workforce growth and more difficulty in finding new gains in productivity. There are plenty of areas where Australia can do better. There are long term problems which need to be addressed.

With fifteen years completed there is no compelling reason to believe Australia will not record a twenty year expansion, and perhaps longer. No doubt it will sooner or later be interrupted, but the fifteen years of growth have already made a difference. This paper is about the nature of the differences it has made and continues to make. It asks where the long upswing came from, what its characteristics are, how enduring it may prove to be, how it has changed Australia and Australia's place in the world, what it means for Australians and Australia's place in the world economy, and where it is now headed. But before we look at where Australia is and where it is going, we look at where it came from.

Chapter 2

Where it came from

Colonial modernity

European Australia began as a mighty economic experiment, at the dawn of the modern era. It was, its proponent Sir Joseph Banks urged, to be a prison where the occupants could ‘maintain themselves without any assistance from England’ and ultimately bring an ‘advantageous return’ to the mother country.⁷ A thousand British soldiers, seamen, government officials and the criminals in their charge were loaded into eleven ships in Portsmouth in May 1787 and unloaded in a wilderness on the other side of the world in January 1788. They were instructed to support themselves, as soon as possible. The prison colony on the shores of Sydney Harbour was created only a few decades after the beginning of the English industrial revolution, only twelve years after the American Declaration of Independence, and a year before the French Revolution. Its foundation as a convict settlement for many years obscured the deeper truth, that it was also a child of the Enlightenment. Part of the Enlightenment was a revolution in economic thinking. It argued for

free trade and free markets, and it lent itself to conceiving of the state as a free compact. Moral philosopher Adam Smith's *Wealth of Nations*, the founding text of the modern economics of trade, specialisation, markets and prices, was published in 1776, the same year the American Revolution prompted British authorities to consider alternative destinations for their criminals. David Ricardo's *Principles of Political Economy and Taxation*, with its exposition of comparative advantage in foreign trade, was published in 1817, the same year the first bank was established in the new colony.

After a difficult beginning the experiment in transposing a mature culture into new and entirely different physical circumstances began to work, not least because the European settlers were able to successfully slot their emerging local economy into a growing global economy centered on London. In the early nineteenth century England was the wealthiest and busiest economy in the world, and it deployed the most powerful navy in the world. The Australian settlers were gifted with the laws of England, with their respect for property rights, contracts and equality before the law. The economy of the Aboriginal inhabitants was so simple and so many of them were destroyed by new diseases or by the settlers' expropriation of their living spaces that the Europeans could act as if, as their law for several hundred years assumed, the land had no previous owners.

When it was founded as a convict settlement there were no houses, no ports, no roads, no farms, factories or mines. Their antecedents, their history, their culture were in European settler's minds, not in the physical world in which they found themselves. Equally, there was no class of absentee landlords with vast estates, no rural peasantry, no differences of religion, culture, language or ethnicity sufficiently wide to hinder the growth of commerce, no deeply rooted class system based on generations of inherited property, no assurance that deference would be expected and offered. The settlers were gently released from the claims of their history. After expropriating, exterminating or pushing away the Aboriginal people the settlers could build an economy in which everything was new, where everything they made embodied the most recent technologies consistent with the materials at hand, where land

and capital were always more plentiful than labour, and where there was always work to be done and money to be made.

From European settlement in 1788, output, employment and population all began to rapidly expand as the colonists discovered they could grow wool and meat for the home market. The Australian colonies had routine transport links to the home market for both commodity exports and manufactured imports, substantial government support in the early years, and later ready access to London capital markets. As Smith and Ricardo would have advised, the colonists flourished by specialising at producing what the new country could cheaply provide to the global economy, and importing what the global economy could cheaply provide to them. The modern Australian economy developed not as a self sufficient community but as an adaptive and efficient system for exploiting the resources of the country. As Australian economic historian Ian McLean remarks, Australia's modern economy 'was formed as part of the first globalisation' that began in the early decades of the nineteenth century.⁸

From 1800 to the middle of the century production and population doubled on average every seven years.⁹ The discovery of easily accessible gold mid century spurred a rapid growth rate of both output and population for another decade. Both population and output growth then slowed from 1860 as less fertile land was brought into production, and the easy gold was exhausted. Even so output growth averaged nearly 5% to the beginning of the 1890s as technological advances such as steamships, refrigeration and the telegraph helped Australian commerce with the world.

Because capital was plentiful, labour scarce and resources abundant, because of a high degree of specialisation permitted by Australia's membership of an empire production system, from 1850 through to the end of the nineteenth century Australian per capita income was higher than any other country in the world, including the US and the UK.¹⁰

Setbacks

From that peak of comparative affluence, Australian slowly slipped. The next forty years, with two world wars and a depression, were difficult

for most countries. They were especially difficult for Australia because as a commodity exporter and capital importer it was more dependent on the global economy than most, and from 1914 the global economy broke down. From 1890 until the beginning of the Second World War, average annual Australian output growth slowed to a little more than 2%, and population growth to a little less than 2%. The US did relatively better. Per capita Australian income had slipped from 110% of US per capita income in 1890 to 87% of US per capita income by 1924, a proportion it would roughly maintain until the end of the century.

When the colonies federated in 1901, Australia was recovering from a decade of economic setbacks. Slowing demand for Australian wool and meat in the 1890s terminated a speculative property boom in Melbourne, and brought on a financial crash which precipitated a long recession. Federation created a single national market for goods and services, with trade between the states to be absolutely free. The new constitution also permitted the early Commonwealth parliaments to legislate to exclude cheap labour through a White Australia policy, to regulate interstate industry wages and working conditions through a tribunal, and to establish means by which Australian manufacturers could seek tariff protection against imports. It would take most of the coming century for Australians to realise the national market would always be too small to match the success of America and Europe in creating great industrial economies behind high tariff walls.

Growth resumed in the first decade of the twentieth century, but the global economy abruptly contracted with the European mobilisation of 1914, and World War One was followed by a prolonged recession. Australia picked up in the nineteen twenties, helped by big government development projects in rail, bridges, ports and roads. The level of investment in 1926 would not be matched until Australia began to prepare for World War Two. But much of the development was supported by borrowing from London, matched by large current account deficits. When the world depression hit at the end of the twenties Australia was doubly vulnerable. Not only did wheat, wool and meat prices tumble, but the London capital market ceased new lending and sought the repayment of existing loans. The depression bit deep in Australia,

though tariff increases, currency depreciation, budget deficits, good seasons and adjustment to lower prices allowed Australia to begin recovering sooner than North America.

The policy framework developed since Federation proved inadequate. When the Great Depression struck, the Commonwealth government had little influence over monetary policy, and shared control over spending and taxation roughly equally with the states. Remembering the Depression experience, John Curtin's Labor government remade the Commonwealth during the national emergency which followed Pearl Harbour and Japan's entry to World War Two.¹¹ It seized control over income tax from the states, giving the Commonwealth predominant control over spending as well as revenue. It recreated the government-owned Commonwealth Bank as a true central bank, responsible to the Commonwealth Treasurer and with authority over the private banks.

With the Commonwealth now equipped with the means to mitigate booms and busts, the expansion of global trade and of the global economy after World War Two was kind to Australia. The population rapidly increased with mass immigration, vast new housing estates were built on the fringes of all the major cities, manufacturing output swelled behind higher and higher tariff walls, and the rest of the world demanded Australian beef, wheat and wool. GDP growth averaged over 5% a year. Other than World War Two, GDP per head rose more rapidly in the years between 1945 and 1974 than at any preceding period in the twentieth century.

Wages, tariffs, and OPEC

From the middle of the nineteen sixties, however, problems became apparent. Some of these problems were unique to Australia, and some were evident in all developed economies. For the Australian economy the turning point was 1971. Most years in economic policy making are routine, but as the great Australian economic historian C B Schedvin remarked, 1971 was different.¹² In that year the long post war boom ended. It would be twenty years before the next long boom began.

The global economy did well through the nineteen sixties and into

the beginning of the nineteen seventies. The Australian economy did especially well. From the middle of the nineteen sixties exports of iron ore, coal and bauxite rapidly increased. Australian real GDP increased just short of an amazing 9 % in the fiscal year 1968/69, the fastest rate of growth since the war economy buildup of 1941/42. The following year export volumes increased 16 %, the biggest rise since the Korean War boom. But at the same time the framework of global growth was collapsing, introducing higher inflation as well as strong output growth. Under increasing pressure from the expansion of US dollar balances to finance the Vietnam War, the fixed peg for the US dollar trembled. The post war system of fixed exchange rates began to disintegrate in 1969. The German mark floated in May 1971, immediately appreciating against the US dollar. In August 1971 President Nixon formally suspended gold convertibility, and in the December 1971 Smithsonian Agreement the major market economies agreed to a substantial depreciation of the US dollar against gold. US inflation had doubled from 1968 to 1970. Three years later it would double again.

The late sixties global boom and its aftermath exposed deep seated problems in Australia's economic framework. Australia enjoyed continuously low unemployment in the twenty years following World War Two, as did Europe. But while Western European governments had in return won a trade union commitment to moderate wages growth consistent with low inflation, Australia had not. Nor did it have, as the US did, a free market in labour which resisted wage inflation. It had the worst possible combination — strong unions, and judicially regulated minimum but not maximum wages. The difficulties were compounded by increasing tariff protection, sought by manufacturers and supported by the long running post war Liberal–Country Party coalition government under Robert Menzies. Increasing tariffs permitted rising nominal wages growth, otherwise impossible. Under the wage arbitrator's doctrine of 'comparative wage justice' all workers could be awarded pay increases won by a minority in the most militant sections of the workforce. The tendency became more clearly apparent following the 1967 Total Wage Case in which the Commonwealth Conciliation and Arbitration Commission (CCAC) sought to control the

whole wage of most of the workforce. Obscured for decades by trade union conservatism, low global inflation, fixed exchange rates, large scale immigration and rising real incomes, the wages problem emerged in the early seventies as the central issue in Australian economic policy. If the wages problem was to be addressed, the tariff problem also had to be addressed.¹³

Under Liberal Prime Minister Bill McMahon, Australia dithered as the global boom gathered force in the late nineteen sixties.¹⁴ His government moved the Australian dollar up against the falling US dollar, but depreciated against appreciating currencies such as the mark. It tightened monetary and fiscal policy to slow the economy and inflation, and then relaxed it in response to the threat of electoral defeat by Gough Whitlam's Labor opposition in an election likely at the end of 1972. The result was a growth slowdown insufficient to mitigate the rapid increase in inflation. When Whitlam came to office at the end of 1972 inflation had already doubled to 6 %, and was rising. Output growth had halved to 4 %, but was again increasing. Elected in December 1972, Whitlam twice appreciated the currency and cut tariffs by 25 %, the only major tariff cut between World War Two and 1988. Import volumes rose by nearly a third in 1973/74, the fastest rate of increase since the end of World War Two. But in October 1973, less than a year after the new government was elected, Arab producers responded to the Yom Kippur War with an oil embargo against the United States, Japan and Western Europe. The global oil price quadrupled.

The preceding boom, the rise in inflation, and the initial sympathy of the incoming Labor ministers to union wage claims in the CCAC touched off an explosion in wages growth which fatally wounded the Whitlam government. In the year to December 1974, the second year of the Whitlam government, nominal wages rose 30 % and real wages rose 14 %. The wages share of total factor incomes increased to 67 % in that year, the highest before or since in the half century of the data series. The government responded to higher inflation and wages growth with a new round of monetary tightening in May 1974. Hammered by the 'short sharp shock' of high interest rates and restricted credit, growth slowed to less than half of the average of the previous thirty years. In the

second half of 1975 Australia slipped into a shallow recession. Seizing the opportunity the Liberal opposition forced an election, which it won in a landslide.

In November 1975 Liberal Prime Minister Malcolm Fraser took over responsibility for an economy in which growth was rising and inflation had fallen from a peak of nearly 17 % in 1974/75. The new government pursued restrictive policies for a few years, but cheered by a commodity price upswing at the end of the seventies it spruiked a local boom in the run up to the 1980 federal election. Wages growth accelerated again at the end of the decade, colliding with a global economic downturn. Nominal wages rose 15 % in the twelve months to September 1982. The wages explosion was again met with higher local interest rates. In the December quarter of 1981 Australia slipped into what would be the longest and deepest slump since the Great Depression.

It capped a difficult and unsatisfactory period. Australia's economic performance in the twelve years between 1971 and 1983 was the worst since the nineteen thirties. There were four recessions, and other quarters in which output contracted.¹⁵ Average output growth between 1971/72 and 1982/83 was 3 %, compared to 4.8 % between 1948 and 1971, and 5.2 % between 1960 and 1971. In the whole ten year span from a growth peak in the December quarter of 1973 to a trough in the June quarter of 1983, output per head in Australia grew by less than 5 %. Australia had now fallen behind, and the global economy was about to be transformed.

The growth of global financial markets contributed to the collapse of the post war system of fixed exchange rates, which in turn stimulated more financial innovation. It began an episode of deeper global economic integration which would see huge increases in foreign direct investment, in currency trading, in cross border share trading, and cross border debt. It would permit savings and investment to be more readily transferred between countries. It would punish offenders against global economic orthodoxy, and reward the compliant. Coinciding as it did with OPEC oil price increases, the slowdown in global growth and the increase in global inflation, the beginning of deeper global financial integration in the early seventies initiated an episode of economic turbulence from

which no nation could be sheltered — and certainly not one designed to be part of a global economy.

The US had begun to meet the challenges of the new global economy with the Federal Reserve decision to attack inflation in October 1979. Led by its chairman Paul Volcker interest rates were increased, and the US slipped into two successive recessions. It would emerge at the end of 1982 with markedly lower inflation, at the beginning of what would prove to be a decade of prosperity. At the same time as the Federal Reserve cracked down on inflation, Mao's successor as China's leader, Deng Xiao Peng, began the drive to manufacture exports for the Western market economies and to introduce market disciplines. In the same year Margaret Thatcher was first elected prime minister of the United Kingdom and one year later Ronald Regan defeated Jimmy Carter in the US presidential election. Economic distress forced existing governments out of office, and brought to power governments committed to economic reform.

The reform decade

The Fraser government had taken the first tentative steps to deregulate finance, but the prime minister was completely committed to high tariff protection for Australian industry and a regulated exchange rate.¹⁶ In Australia the great changes were delayed to 1983, and the reform government was formed not by conservatives but by the Labor Party. Elected in March 1983 in a landslide, the incoming Hawke Labor government was determined not to repeat the unhappy experience of the Whitlam Labor government of 1972–75.¹⁷ The difficulties were formidable. Coming out of the recession of 1981/1982 unemployment was over 10 %, but consumer price inflation was still running at over 11 %. Visiting Australia that same year to prepare a chapter on macroeconomic policy for a Brookings study on the Australian economy¹⁸ US economist Stanley Fischer thought the Australian outlook was 'not too good'.¹⁹ The principal issue, he recalled, was 'the Phillips curve' — the tradeoff between inflation and unemployment. How would it be possible to get inflation down without making unemployment worse, or unemployment

down without making inflation worse? Wage explosions had destroyed Gough Whitlam's Labor government and then the government of his Liberal successor, Malcolm Fraser. The solution to the wages problem would prove to be the basis for the long boom.

Twelve years of deterioration would be addressed with twelve years of reconstruction. The first policy action of the new government was an agreement with the trade union leadership to accept a reduced rate of growth of wages in return for reduced unemployment. Seven years later real wages had barely increased, but Australia led the OECD in the rate of growth of employment. While the Accord with the trade unions held real wages, the government strengthened competition and flexibility. The currency was floated and capital controls removed in late 1983, finance deregulated in 1984 and 1985. Tariffs were slashed in 1988 and 1991, and by 1993 tariff protection was half the level of a decade earlier. In 1985 and 1986 the income tax base was broadened to include capital gains and fringe benefits, and the rates and thresholds were lowered. The federal budget moved into substantial surplus from 1987. It was the most dramatic period of economic reform since the World War Two Curtin government, and it fundamentally changed the framework of the Australian economy. It was much more exposed to global competition, and market disciplines were introduced in some previously regulated industries. With a cheaper and more flexible currency export growth accelerated. Profits rose, business investment surged. From 1983/84 to 1988/89 overall GDP growth averaged 4.5%, compared to 2.6% for the decade to 1982/83.

Towards recession

By the late nineteen eighties, however, the economy began to falter. With wages restrained but output accelerating and prices rising, profits more than doubled between 1983 and 1989. In just the five years to 1987 business profits rose from 17% to 23% of total income. Banking deregulation sparked competition for market share, feeding an explosion in speculative property development. Bank assets were equivalent to 50% of GDP in 1984, the year major financial deregulation began.

The proportion had not changed in the previous seven years. By 1990 banks' assets had increased to 85% of GDP.²⁰ In the year to June 1988 the volume of business lending increased by just short of one third, and in the year to May 1989 the volume of home lending increased by just short of one quarter. Unemployment was falling towards the low of 5.6% it would reach in December 1989, and Treasury officials feared another wage explosion like 1974 or 1981.²¹ Earlier tightening was delayed by uncertainty over the impact of the 1987 share market crash but by the beginning of 1988 Reserve Bank officials, prompted by the example of the US Federal Reserve, wanted to raise interest rates against a renewal of Australian and global inflation pressures.

With the encouragement of both the prime minister and the treasurer and the keen support of the Treasury the Reserve Bank began to increase interest rates from April 1988. It was at first, as Treasury proposed, merely 'the sound of a harp'.²² Interest rates were high through most of the eighties. They had been similarly nudged up in 1984, twice in 1985, and again in 1986, with only mild impact on output growth and employment. The overnight rate peak of 19.4% reached in December 1985 was a little higher than the 19% peak it would reach during the later tightening, and throughout the later period rates were below those which brought on the recession of 1982.

What distinguished the episode was not the amplitude of the tightening, but its duration, the fragility of many highly geared businesses, and the exposure of the banks. By the end of 1988 the overnight interest rate was 4% higher than it had been at the beginning of the year. By the end of 1989, it was 3% higher than it had been at the end of the previous year. At the beginning of 1990, again with the encouragement of the treasurer, the RBA began to lower the rate. Even so, by the end of 1990 it was still nearly 13%. It was not until the middle of 1991 that the overnight rate passed back down through the level it had been three and half years before. The rising overnight rate was mimicked in rising mortgage payments by households. Because of high inflation mortgage interest rates were high anyway.²³ The standard rate was 13.5% in May 1988, peaked at 17% in June 1989, and did not pass back through 13.5% again until the middle of 1991.

The impact of high rates in Australia was intensified by higher interest rates elsewhere, and by the beginning of a global downturn led by the United States. The global circumstances were less important, however, than the vulnerability of households and businesses. Borrowing had rapidly increased, so households and businesses were more exposed to interest rate increases than before.²⁴ Much of the lending was for property developments, the success of which depended on rising property prices. As developers went under and bank loan losses mounted confidence in the financial system weakened. In the course of 1990 bank share prices fell by over one third.

What the recession meant

So began the deepest recession since World War Two. It is an episode so deeply etched in the national memory that Prime Minister John Howard could still invoke it to demolish the Labor Opposition in an election campaign fourteen years later. The recession immediately preceded the long boom and remains a controversial episode. Was it a necessary precondition to the long boom, was it policy mistake, or was it perhaps both? Keating famously called it the ‘the recession we had to have’ and in May 2005 was still saying ‘of course it was the recession we had to have’.²⁵ In February 2005 Don Russell, who had been Keating’s principal private secretary during the period, claimed that structural changes which permitted the long upswing were the ‘direct result’ of the recession.²⁶ RBA Governor Ian Macfarlane said of the recession, during a speech to business economists in December 2005, that ‘some of the economic interpretations are completely wrong. And even more than that, the political interpretations are completely wrong’. It was, he claimed, ‘the episode which returned us to the low inflation and stable growth economy’, with the implication that it should not be regarded, he said, as a ‘policy error’. In his view it is best compared to the US Federal Reserves monetary tightening at the end of the nineteen seventies, a ‘policy triumph’ which broke the back of two decades of rising inflation.

This interpretation of the period seems to me quite wrong. There’s no doubt the explosion in credit and the rise in house prices warranted

some monetary policy tightening. But had containing inflation alone been the object the exercise, it would or at least could and should have been much milder and ended sooner. Far from increasing, core consumer price inflation was falling at the time the tightening began in early 1988.²⁷ Wages were increasing by less than inflation, and the labour cost per unit of output was falling. The Treasury’s own measure of consumer price inflation, the Treasury Underlying Rate, peaked in 1985/86 and was falling. The RBA’s trimmed and weighted means measures, the ones it today favours as the clearest indicators of core inflation, had both peaked earlier in the decade — the trimmed measure in 1985/86, and the weighted mean in 1986/87 — and then fallen. The headline consumer price index increased, but this was because in the measure then used interest rate increases paradoxically added to inflation through increased home mortgage payments. Alternative measures shorn of the impact of interest rate increases on the housing components of prices and of increases in government charges showed a different story.²⁸ Nor was there compelling evidence of any breakout in wages. Wages growth picked up a little in 1989, but in 1988, when the tightening commenced, wages growth was lower than it had been the year before or would be the year after.

For some of the key players the tightening of monetary policy was not mainly about inflation.²⁹ The Reserve Bank officially claimed in its 1988 annual report that the tightening began as a response to higher imports threatening ‘the improving trend in the balance of payments’, as well as a response to growth in earnings and prices threatening ‘the downward trend in inflation’. So far as Treasurer Paul Keating and his cabinet colleagues were concerned, the policy objective was not inflation so much as the current account deficit.³⁰ This objective made the tightening episode vastly more difficult because after a period of stability the current account deficit began to widen again. In the mid eighties Prime Minister Bob Hawke and Treasurer Paul Keating had used the rising current account deficit to illustrate the necessity of faster economic reform. In doing so they made the size of the current account deficit a test of economic success. As Keating would later remark, the government was ‘hoist on its own petard’ by the sudden widening of the

deficit in the late nineteen eighties. When it began to increase with rising business investment, they were convinced that it must be narrowed by slowing domestic demand. What began mildly enough with ‘the sound of a harp’ became a struggle to rein in the current account deficit before the next election.

Instead of narrowing, however, the current account deficit deteriorated almost every quarter — as it happened, from the very time interest rates began to increase. It was not until the March quarter of 1990, two years after the first tightening, that the current account deficit levelled out and began to narrow. The deficits were driven by the tail end of the business investment boom, which did not begin to slow until the second half of 1989, by the higher value of the Australian dollar induced by the increase in interest rates, and by a slowdown in global growth.

Other economic indicators offered misleading signals and encouraged over-tightening. House prices continued to increase, suggesting that high interest rates were making little impression on households. The median price of established houses rose 50% from the end of 1987 to the middle of 1989. Council approvals for new house construction dropped in 1988 but then stabilised through to the second quarter of 1989, when they plummeted. The rate of growth of lending for housing rose from under 10% in early 1987 to just over 23% just two years later. Policy makers were also misled by the slow response of employment. The unemployment rate continued to fall towards a low of 5.6%, the lowest for eight years, in December 1989. This was twenty months after the first interest rate increase, and one month before the first cut. Jobs growth slowed, but the number of jobs did not peak until the middle of 1990, well after interest rates had already begun to come down. Retail sales growth plunged at the beginning of 1989, but then recovered through the remainder of the year. Even by the March quarter of 1990, three months after the Reserve Bank had begun to cut the cash rate, output growth was still expanding. The political and economic impact of the subsequent recession was conditioned by the fact that it began *after* the Reserve Bank had begun to cut interest rates.

The downturn in the second quarter of 1990 was sudden and overwhelming. Highly leveraged businesses began to go under, bank

loan losses mounted, profits and business investment fell, employment growth stopped, and unemployment began to increase. The outstanding stock of business lending contracted from early 1991 to the middle of 1994 as banks stopped lending and businesses went under. Business investment fell in almost every quarter from the middle of 1989 to the end of 1992 — over three years. The current account deficit stabilised and then began to narrow as imports fell while export growth continued. But the cost was enormous. From a low of 430,000 in November 1989 unemployment doubled to more than one million in February 1993. Over three hundred thousand men in full time jobs were sacked in the thirty months to the end of 1992. It would be 1997 before full time male employment again rose to the level it had reached in 1992. The output of goods and services was less in 1991/92 than it had been two years earlier, in 1989/90.

So, was the recession a necessary precondition to the expansion, as Macfarlane has suggested? Inflation was falling anyway, the government’s objective was the current account deficit rather than inflation, the recession was not predicted or sought by the proponents of the tightening, and it was surely longer and deeper than required by any sensible policy outcome.³¹ But Macfarlane was certainly right in identifying the downturn as the key to the upswing which followed. The downturn removed pricing power from business. Because of higher interest rates the exchange rate rose by nearly one third, bearing down on import prices. Inflation began to tumble. But a more durable change would permit inflation to remain low, and underpin the coming boom. It would prove to be one of the more important changes in Australia in the second half of the twentieth century. In the middle of 1991, the rate of growth of wages abruptly slowed. Since wages are roughly 60% of the cost of production, a change in the rate of growth of labour costs has a big impact on the rate of consumer price inflation.

The Hawke Labor Government’s Accord with the ACTU had already permitted a sharp drop in wages growth compared with the nineteen seventies. Average earnings growth had slowed but it was still running around 7%. From the beginning of the nineteen nineties, wages growth plummeted. The deceleration coincided with sharply rising

unemployment, and falling full time employment. The unemployment rate was 5.6% in December 1989 and 10.1% two years later. Some of the apparent fall in average weekly earnings growth may therefore be that many older and better paid full time males were sacked, reducing the average wage. Some of it may be that unions could not propose and employers could not pay over award claims. But most was the last and most valuable service of the Accord and the Australian Industrial Relations Commission. In 1991 the Accord was still in place, and most wage increases were arbitrated in a single national decision by the AIRC. Confronted with rising unemployment and convinced that a bigger increase would hurt those it was intended to help, the AIRC awarded only a 2.5% increase in April 1991 — though headline inflation the previous year had been over 6%.

It was the last nationally arbitrated increase under the existing Accord arrangements. In October 1991 the Commission accepted that unions and employers should be encouraged to strike enterprise bargains, beginning to turn the award system into a safety net for those unable to make bargains. The annual national wage case then became the means of updating the safety net, rather than giving a pay increase to most of the workforce. Persuaded by the depth of the recession that an increase in 1992 would hurt the low paid workers it was trying to protect, the AIRC refused a pay increase in that year. In 1993 the Keating government amended the relevant legislation to make collective enterprise agreements the main form of employment relationship. The AIRC would not again award an increase until the end of 1993. There was a 32 month period in which there was no arbitrated pay increase, while the alternative enterprise bargaining stream was only just getting going. The result was a sharp decline in wages growth, which the removal of tariffs, the decline in corporate pricing power and the narrowing of the scope of the AIRC would make permanent. From the AIRC decision of 1991 wages growth slowed dramatically. It would be closer to 3.5% for the next decade — half the rate of growth of the previous decade.

It was the biggest change in the wage determination since the Accord had been introduced a decade before, and the biggest change

in wages growth since the acceleration of both wages and inflation got underway in the mid nineteen sixties. The Australian economy had seen many recessions and many recoveries, but this recovery would be different because the deceleration of wages growth entirely changed the circumstances in which it would occur. If there was one set of decisions which is most clearly linked to the prolonged upswing which followed, it was the decision of the AIRC to refuse further increases from April 1991 to the end of 1993, and the concurrent policy of the Keating government from 1992 through to 1994 to turn awards into safety nets, and encourage much of the workforce into enterprise bargains.

The Accord stabilised nominal wages growth and permitted a decline in real wages. The AIRC decision of 1991, the shift to enterprise bargaining from 1992 to 1994, then completed the removal of an impediment which had hindered Australian output growth for a quarter century. The severity of the recession was surely a policy error, but there is little doubt that the weakness of employment growth and the high rate of unemployment in the first few years of recovery helped the new arrangements to settle. There is also little doubt that the subsequent period of very low inflation encouraged the Reserve Bank to adopt a formal inflation target in 1993, which in turn helped to keep inflation low. But it is important to note that the central bank policy was adopted after inflation had fallen, and because inflation had fallen. It did not cause inflation to fall.

Financial crises in the US, the UK, and Sweden as well as Australia contributed to a global recession at the beginning of the nineteen nineties. Behind it, however, a new global economy was emerging. After twenty years of difficulty the major economies had adjusted to floating exchange rates and free cross border capital flows. International trade continued to strengthen. China was entering the global economy, and so were the countries of the former Soviet bloc. Above all, global inflation was now reliably low. The US ten year bond rate had peaked above 15% in 1981. By 1989 it was under 10%, and it would continue to decline for another decade. In Australia the ten year bond rate had peaked at 16.4% in July 1982. By the beginning of the nineteen nineties it was under 10% and falling. With John Howard as prime minister in

2006 it was under 6%, more than 10 percentage points less than when he had been treasurer twenty four years earlier. In most countries, but especially in the UK, the US and Australia, the year 1991 marked the end of two bewildering decades of economic turbulence.

Keating Government transition

In the dismal light of rising unemployment and falling output in Australia in 1991, eight years of energetic reform seemed to have made things worse rather than better. Its opponents declared that 'economic rationalism' had failed. The unemployment rate was higher in 1992 than it had been in the recession at the beginning of the nineteen eighties which had brought Labor to office. But there were big differences. Coming out of the 1982 recession inflation had still been over 10%. Male ordinary time earnings growth had fallen, but only to 6.5%. Coming out of the 1991/92 recession inflation was under 2%³². Male ordinary time earnings growth had slowed to 1.9%. The recession also obscured the impact of the changes to Australia's economic framework in the nineteen eighties, which would become apparent only later in the nineteen nineties.

In the new Keating government things looked grim. Elected leader by the federal Labor caucus to replace Bob Hawke in December 1991, Keating had a year or so to turn things around before an election. Interest rates were lowered, government spending increased, and a package of investment incentives and public works adopted — with little apparent impact. Production stopped falling by the middle of 1991 and then began to increase. Even so, growth was feeble until the middle of 1992. And employment, which had been so stubbornly strong, was now just as stubbornly weak. Unemployment did not even peak until the middle of 1992, when it reached 10.8% of the workforce. Even fifteen months later it was still 10.7%. Employment stopped falling but did not begin to grow until the first quarter of 1993. The current account deficit had fallen, but remained persistently higher than 3% of GDP. Sensibly Keating now declared victory over high inflation, victory over a high current account deficit remaining elusive.

The political consequences of the recession were not as expected. The government continued with its economic reforms, despite the downturn. The Hawke government had adopted further tariff cuts in 1991, although unemployment was rising in that year to over 10% from the low of 5.6% reached at the end of 1989. Despite the pressure of a forthcoming election Keating refused a plea by Treasurer John Dawkins and Industry Minister John Button to postpone tariff cuts, and put up with constant criticism of the cuts from his union allies. Unexpectedly winning the election in early 1993, Keating immediately pushed ahead with a profound change in industrial relations which restricted the role of arbitral tribunals to provide a minimum safety net and encouraged employees (whether in unions or not) to reach collective enterprise agreements with employers.

Nor were the economic consequences quite as predicted by the vocal opponents of 'economic rationalism'.

Chapter 3

The long expansion

Jobless recovery

From this turbulent history, the new Australian economy was beginning to emerge.

The most striking characteristic of the first few years of the upswing which began in the fourth quarter of 1991 was that there weren't many new jobs. With interest rates slowly coming down from the beginning of 1990, the Australian dollar weakening and the federal government beginning to run a substantial deficit from 1990/91, output began to increase from the low point of output in the September quarter 1991. Slow at first, the upswing gathered speed into 1992 and 1993. But it was a jobless recovery. Employment peaked in July 1990, and then declined for nearly three years. It did not begin to pick up until May 1993, eighteen months after output had begun to increase. When Paul Keating overwhelmingly won the March 1993 federal election unemployment was higher than when he had become Prime Minister at the end of 1991. Since output increased and employment did not, output per hour worked or labour productivity rapidly rose.

The other striking characteristic was that inflation remained very low indeed. It fell from over 8% at the end of the eighties to well under 1% by the end of 1992. Wages growth picked up, but not much. Australia's twenty year episode of continuous high inflation was over, though there was one more struggle to come and it would be another decade before politicians, officials and commentators lost their conviction that inflation would soon return.

The next phase of the upswing was more familiar. When employment did begin to increase, it surged. Nearly three quarters of a million additional jobs were created from the beginning of 1993 to the end of 1995. From nearly 11% as late as the end of 1993 unemployment fell to 8% of the workforce eighteen months later. The output of goods and services increased 6.5% in the year to September 1994, the highest rate of growth in a decade. Import growth accelerated, and after narrowing in the recession the current account deficit began to widen again in 1992/93. With low interest rates and increasing employment, home construction quickly expanded. Import prices jumped from December 1994 to the middle of 1995, reflecting a dip in the Australian dollar as interest rates elsewhere went up while Australia's short term rates remained unchanged. With tax cuts, spending packages to stimulate growth and the normal downturn in revenues during recession the Commonwealth government deficit headed towards 4% of GDP.

At the beginning of 1994 the US Federal Reserve led a worldwide increase in short term interest rates, which itself followed rising bond yields at the end of 1993. The Reserve Bank of Australia at first refused to follow. Inflation was beginning to pick up, though only mildly.³³ With rapid GDP growth, however, a cheap currency, plus the some signs of rising inflation and wages growth, the RBA began increasing the cash rate six months after the Federal Reserve. Thereafter the economy slowed as the overnight rate was abruptly increased from the low of 4.75% in August 1994 to 7.5% in mid December. Home mortgage rates increased from 8.9% to 10.5%. Coming while memories of the 1988/89 tightening and the subsequent recession were still vivid, the rate increases worked quickly. Business investment strengthened, but building approvals tumbled. The housing industry peaked in September

1994 and began to decline. Retail sales growth paused. Employment growth slowed and unemployment began to increase.

Now led by John Howard the Liberal-National Party Opposition declared that Australia had seen only 'five minutes of economic sunshine' between the end of recession in the early nineties and the slowdown of the mid nineties. Keating lost office in a landslide in the federal election in March 1996, speeded on his way by a monetary tightening of sufficient force to remind voters of everything they disliked about the prime minister. Concerned by slowing growth and rising unemployment, satisfied that inflation would soon begin falling (not least because the Australian dollar had appreciated), the RBA began to reverse the interest rate increases in the middle of 1996.

By the beginning of 1997 unemployment was back up to 8.5%. After the brief surge in employment in 1993 and 1994 only 100,000 jobs had been added in the next two years. With higher mortgage interest rates and higher import prices headline inflation had peaked at just over 5% at the end of 1995. It was now rapidly falling as the higher Australian dollar lowered import prices and Australian businesses fought for a share of the consumer's dollar. The government budget deficit was narrowing. The current account deficit had again widened to just under 6% of GDP by the middle of 1995, but was now declining. The new government formally conferred upon the Reserve Bank a qualified independence to pursue its target of 2% to 3% inflation on average over the course of the cycle. The message of the 1994-96 tightening was the RBA would be vigilant in its pursuit of the target, which had been adopted without formal declaration in 1993.³⁴

The new economy

Growth averaged 3.6% in the first five years of the upswing, inflation and wages growth had remained low compared to the nineteen eighties, employment had picked up and so had labour productivity. Other than continued low inflation there was nothing in the first years of the upswing, from 1991 to 1996, to reveal the Australian economy now worked in a different way from the past. What happened in the next

four years, however, prompted the first recognition that in fundamental ways the economy had changed. Towards the end of the decade analysts began to talk about Australia's 'new economy'.

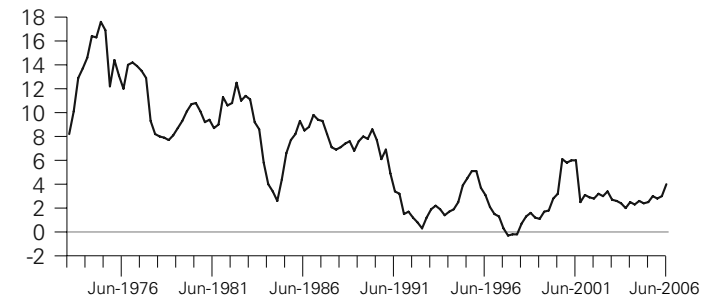
Falling interest rates from the middle of 1996 sparked a rebound in home building, which rose rapidly until the end of the decade. Household consumption spending began to pick up in the last quarter of 1996. Helped by some major resource projects, business investment boomed. Sydney saw the first faint beginnings of what would later become the biggest house price boom in over half a century. After a downturn in the middle of the decade the growth of output per hour worked accelerated and remained persistently high until the end of the decade.

Asia is the market for more than half Australia's exports. The Thai baht collapse in July 1997 and the subsequent financial crisis and slumps in Korea, Indonesia, Thailand and Malaysia caused the biggest fall in Australian exports in forty years. So strong was the upswing in business investment and home building, however, so solid the expansion in household consumption, that the Australian economy expanded right through the entire Asia financial crisis, the Russian and South American crises which followed, and the default of the big US hedge fund LTCM which came next. Overall output growth was stronger during the Asia crisis than before.

Hit by the decline in Australian interest rates in 1996 and then the Asia crisis the following year, the Australian dollar weakened. The Reserve Bank might have fought the decline by raising interest rates, as the Reserve Bank of New Zealand did. Instead it left them unaltered, and then cut again in 1998 after the Federal Reserve lowered its cash rate in response to the collapse of a major hedge fund. The currency depreciated towards the low point of USD0.61 in 1998, appreciated for a while as the Reserve Bank moved to increase interest rates in 1999, and then rapidly sank to just below USD0.50 by the beginning of 2001. New Zealand by contrast went into recession. Good policy helped but so did good luck. Australia encountered the Asia crisis with domestic demand already swelling from rate cuts which began twelve months before. And while import prices rose as the currency depreciated, surprisingly little of the increase was passed on and consumer price inflation remained quite low.³⁵

Figure 6

Consumer price inflation
% pa



The Australian economy did well, but the most interesting characteristic was not so much the rapidity of output growth as the contribution of increased productivity, or of output compared to inputs. Between 1993/94 and 1998/99 the growth of output per hour worked averaged 3.2% a year, the most rapid rate between peaks of productivity growth in forty years of data. At least half of the increase in output per hour worked is usually attributable to increased capital per worker — more machines, more trucks, more computers. In this period only one third of the increase in output per hour worked was explained by more capital. The remainder was due to better technology, to more efficient deployment of labour, to cleverer ways of using the same resources of labour and capital. We will discuss productivity in more detail a little later.

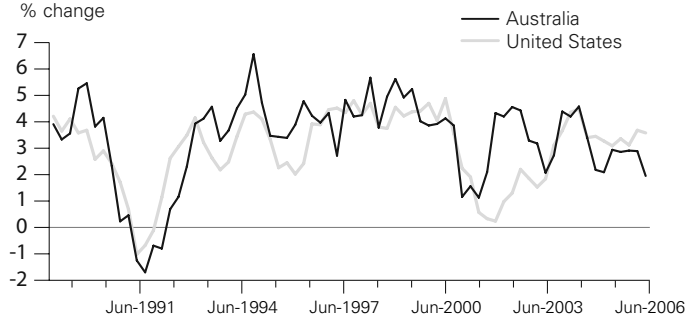
Helped by the cheap currency and the buildup towards the Sydney Olympics in 2000, the economy continued to expand quite strongly through to the end of 2000. But the RBA had become increasingly wary. A 10% goods and services tax was due to be introduced in mid 2000, and the Bank was concerned that if growth was sufficiently strong there would be pressure to include the resulting price increase in wages growth. At the end of 1999 it began tightening, and continued to increase the policy rate through to August 2000.

The sharp downturn at the end of 2000, one of only two quarterly contractions and by far the biggest in the entire expansion between

1991 and 2006, was quite unexpected. The GST for the first time applied a sales tax to home building and renovation. People had very sensibly attempted to get as much work as possible done before July 1 2000, when the GST came into effect. There was accordingly a startling fall in building work after July 1, which accounted for most of the 1% fall in output in the fourth quarter of 2000. The downturn bothered the RBA and so did the sharp decline in US share prices which began in the second half of 2000 and soon spread to the rest of the world. The US Federal Reserve began cutting interest rates in January 2001 to offset the stock market decline. Concerned about a global slowdown, the RBA quickly followed.

Figure 7

Australia v US real GDP growth
% change



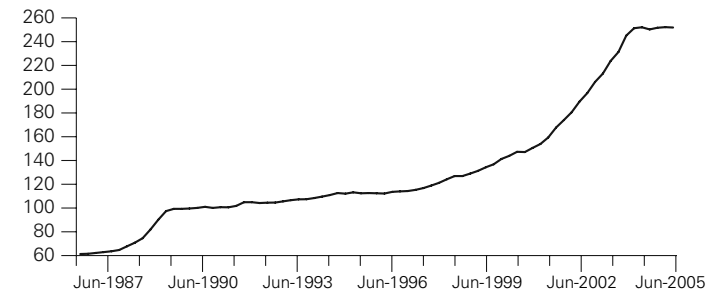
What then happened was another confirmation of the surprising resilience of the Australian expansion. For decades Australian GDP growth had matched the US, slowing when the US slowed and accelerating when the US accelerated. The relationship was so close and so immediate that it would not be accounted for by trade, and was presumably related to the similarity of policy changes by the central banks of each country. In 2001, however, the relationship broke down. The US slipped into a recession, while Australia struggled back from the downturn at the end of 2000 and began to pick up speed.

The cheap currency helped. Repeated cuts in interest rates from the beginning of 2001 to the beginning of 2002 sparked a sharp decline in

the Australian dollar towards a low of USD0.48. After picking up in 1999 exports continued to boom until the middle of 2001, despite the global recession. Home building recovered. House prices rose, along with household debt. Unlike the US, Germany, Japan, Singapore or Taiwan, Australia was not a substantial manufacturer of telecommunications or information technology equipment, so was relatively unaffected by the slump in those industries. The US Federal Reserve responded to the September 11 2001 terrorist attacks in the US with more interest rate cuts, and after a delay the RBA also again cut. Exports were stalled by the global down turn and then by a long and severe drought at the beginning of the new decade, but household consumption growth accelerated and GDP continued to expand.

Figure 8

House prices
1989/90=100, weighted average 8 capital cities



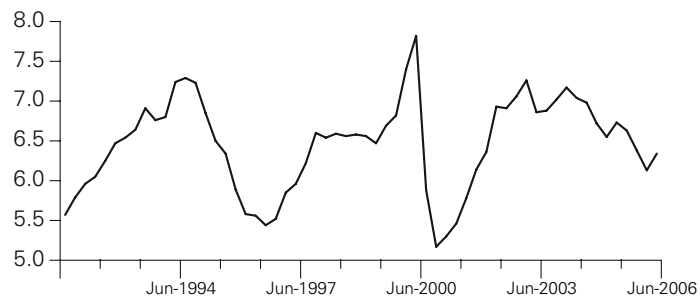
House price boom

By the end of 2003 it was clear that the Australian economy had escaped the global downturn just as it had escaped the Asia crisis and the LTCM and Russian crises. It was affected by a severe drought, but kept on going. It was also clear, however, that Australia had done a little too well. House prices boomed. Household debt had increased much more quickly than income. Imports exploded while exports dropped, so the current account deficit ballooned. The doubling of house prices sparked a sharp increase in speculative investment in rental housing.

In April and May 2002 the RBA changed course and increased the cash rate. The upswing continued, particularly in house prices and home building. At the end of 2003 the RBA again twice increased the cash rate. This time the effect was more apparent. House price growth slowed to a halt. Residential building approvals continued a decline that had begun a few months earlier. The Australian dollar appreciated. With a severe drought hampering farm output, the house price boom over and interest rates somewhat higher, growth slowed.

Figure 9

Dwelling construction as a share of GDP
% volumes



In 2004 and 2005 the growth of household consumption halved, residential construction declined, and GDP in both years increased by less than 3%. Hit by the drought, a higher Australian dollar, and capacity constraints in mining, exports rose only slowly despite a vigorous pickup in the global economy. Business investment was very strong, however, reaching its highest share of GDP in half a century. Associated with strong investment, the tail end of the housing and household spending boom, imports were high. The trade deficit expanded, and the current account deficit made a new record. Meanwhile, the combination of declining GDP growth and persistently strong employment saw labour productivity decline in 2004/05. Moving into the fifteenth year of expansion in 2006 Australia was thus experiencing another change of gears. Discouraged by small but evocative interest rate increases, domestic demand growth had slowed. Export growth, however, was

only slowly increasing. But while growth was slower, there was nothing in the Australian economic circumstances to suggest the long upswing was ending.

China and commodity prices

On the contrary, in 2005 and into 2006 the expansion began to move into a new phase. China had become the world's fourth biggest economy measured on current exchange rates, and it was expanding at 10% a year. The second and third biggest economies, Japan and Germany, were also growing after a long period of stagnation. Eastern Europe, Russia, South America, the Middle East and the rest of East Asia joined the US and China in a concerted global upswing. Prices for Australian mining exports doubled. Export growth was still constrained by drought, by the inability of producers to quickly increase iron ore and coal shipments, by past loss of capacity in metals refining and by a somewhat higher Australian dollar. Household consumption growth had slowed from the rapid pace of the early years of the new decade. Dwelling construction was continuing to contract. But business investment was extremely strong, partly because of high commodity prices and new resources projects. Because dwelling construction was weak and commodity prices strong, big differences opened up between the states. In the year to the first quarter of 2006 Queensland expanded three times faster than the national average, and the growth of business investment in the state was more rapid than in China over the same period. In NSW by contrast growth was under the national average. As we shall see, the new pattern of growth raised interesting issues about the direction of the Australian economy as it moved towards the end of the second decade of continuous expansion.

Chapter 4

Aspects of the long expansion

Productivity growth

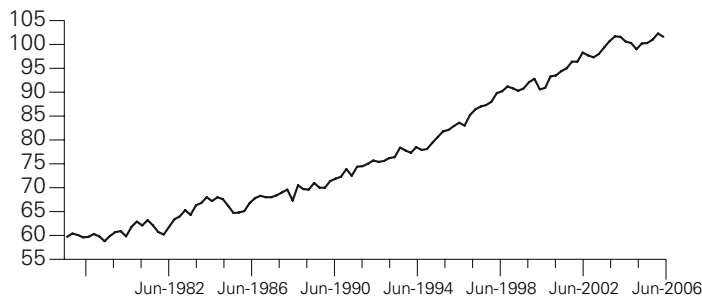
With inflation falling as the recession deepened into 1991, Treasurer Paul Keating made a remarkably prescient speech to a meeting of the government's Economic Planning Advisory Council. In the speech he called for a swift transition from single national wage decisions made by judges, to enterprise bargains between employers and employees. With this transition, he predicted, Australia, would see a prolonged economic expansion in which inflation would remain low, and labour productivity would rapidly increase.

Unusually for a political speech, what Keating said would happen actually did happen. For the next fifteen years Australia would enjoy persistently low inflation, and persistently high growth in productivity. Low inflation could be explained by the Accord, then by recession, and then by increased competition as a result of lower tariffs, the switch to enterprise bargaining, and the Reserve Bank's inflation targeting policy. For many of the same reasons inflation was lower in most economies.

The rise in the growth of productivity or output per hour worked, by contrast, was not at all universal. According to one study, at 1.9% per year on average the growth of Australia's GDP per employee from 1995 to 2004 was better than the outcome in Canada, New Zealand or the UK (as well as Japan, Germany, France and Italy) though behind the US at 2.2%.³⁶ (Australian Bureau of Statistics numbers show average labour productivity growth for Australia over the period of 2.6%.)

Figure 10

Labour productivity
2004/05=100 sa



The increase was different from earlier Australian episodes not only in the size and persistence of labour productivity growth, but also in its source. Productivity growth was expected in manufacturing, mining, farming and utilities, all of which did contribute to productivity growth in the nineties. But in this instance there was also a very big contribution from the service industries. The wholesale trade sector, for example, contributed around one fifth of all the labour productivity growth over the nineties.

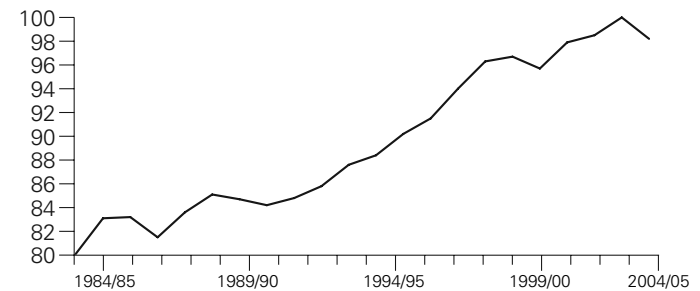
The experience of the nineteen nineties contrasts sharply with the experience of the nineteen eighties. Since productivity growth is typically stronger in the first stages of a recovery, when output is increasing but employers are slow to hire more workers, the Australian Bureau of Statistics makes estimates of average productivity growth from one peak in productivity growth to the next. It identifies successive peaks in productivity growth as 1984/85 and 1988/89, and 1993/94

and 1998/99. Both encompassed five year periods, roughly a decade apart. In the first period output growth averaged 4.1% a year and in the second 4.6% a year. Yet the growth of hours worked was more than twice as fast in the earlier period as in the later period. The growth of capital was somewhat faster in the later period, but not much. The real difference was that at an average of 3.2% a year the growth of labour productivity in the second period was four times faster than in the earlier period. While the growth of capital productivity was twice as fast in the second period, the difference was only 0.3%.

These numbers confirm that a big difference in the nineties compared to the eighties was in the growth of labour productivity, but it was not the only difference. Another change was that less of the labour productivity growth in the nineties could be accounted for by additional capital, and more by more efficient use of the same amounts of labour and capital. This is called multifactor productivity growth. It increased on average by 2.1% per year over the five years of the nineties, compared to 0.7% for the five years of the eighties.

Figure 11

Multi-factor productivity
2003/04=100, quality adjusted hours worked basis



The growth of multifactor productivity over the period 1993/94 to 1998/99 was substantially higher than in any period between growth peaks in the previous forty years. Of the average output growth of 4.6% from 1993/94 to 1998/99 a little under half was accounted from multifactor productivity growth. Increased capital accounted for a little

less than a third of output growth, and less than one fifth was accounted for by increased employment (or hours worked). By contrast in the high growth episode between 1984/85 and 1988/89 multifactor productivity accounted for only one sixth of the average annual output growth of 4.1%, additional employment or hours worked accounted for around half, and additional capital for one third.

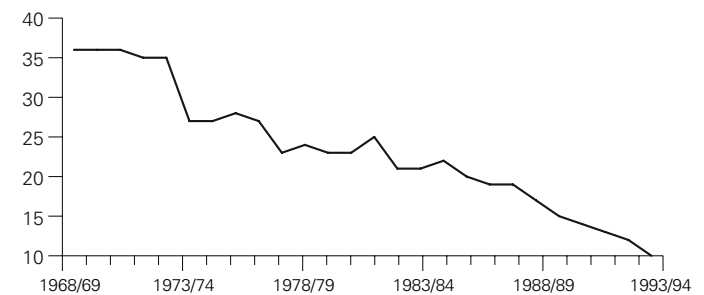
Behind the increase in productivity were several causes. One was the rapid proliferation of cheap information and communications technologies in Australian industry. Productivity in wholesale trade could be increased through improved logistics — through bar coding stock to improve inventory control, and through better coordination of transport through computers and telecommunications. The technology required increased labour flexibility but the introduction of the technology coincided with Australia's transition from a highly centralised industrial relations system in the eighties, when most wage earners received uniform national increases, to a much more flexible system of enterprise bargaining in the early nineties. Through enterprise bargains employers were able to rearrange work practices and incentives around the introduction of new technologies. Neither the technology nor the availability of enterprise bargains would have been effective, however, without sharply increased competition in the Australian market place. Tariffs were cut in 1988 and again in 1991 in a program which would soon make Australian border protection among the lowest in the world. At the same time competition laws were strengthened and more energetically enforced. The combination of stronger competition, new technologies and new labour flexibility impelled cost cutting and labour saving innovation, which turned up as higher productivity growth.

In the new decade both labour and multifactor productivity growth have slowed. Between the successive productivity growth peaks identified by the ABS as 1998/99 to 2003/4, the average rate of growth labour productivity slowed to 2.2% and multifactor productivity growth was less than half the rate in the previous successive peaks between 1993/94 and 1998/99. In 2004/05 labour productivity actually fell, the first decline for decades. That decline was probably the happenstance

conjunction of slowing output growth and rising employment growth. As employment growth slowed, apparent productivity growth began to recover. Even so, it was troubling that output per hour worked in the June quarter of 2006 was no higher than it had been two years earlier. The slowdown in productivity growth in the years between 1998/99 and 2003/04 is even more telling. It was still growing around the average of the previous four decades, so requires no special explanation. But it does suggest that the big productivity gains from enterprise bargaining, market reforms in industries and stronger competition have been captured. Future gains will be harder.

Figure 12

Effective average tariff protection for manufacturing
Percent



Productivity growth has been important in the last 15 years, but not as important as it must be in the next 15 years. Over the whole of the 15 year upswing the increase in output per hour worked contributed more than half of total output growth. But that still leaves a little less than half contributed by increased hours worked. Reducing unemployment contributed something like one tenth of the additional hours worked. With unemployment down to 5% of the workforce, it is unlikely that lower unemployment will contribute much to increased employment in future. Because post World War Two baby boomers are beginning to retire, while the entry of women into the workforce has peaked out, overall workforce growth will also slow in coming decades. Such output growth as Australia enjoys will therefore increasingly depend

on productivity growth alone.³⁷ Most of this growth will depend on decisions by business to incorporate new technologies or achieve more efficiencies. The amount of research and development spending and the industry competition which drives innovation, will, however, be influenced by government policy. It will also be strongly influenced by the education and skills of Australians, which is again influenced by government policy. These are issues to which we return.

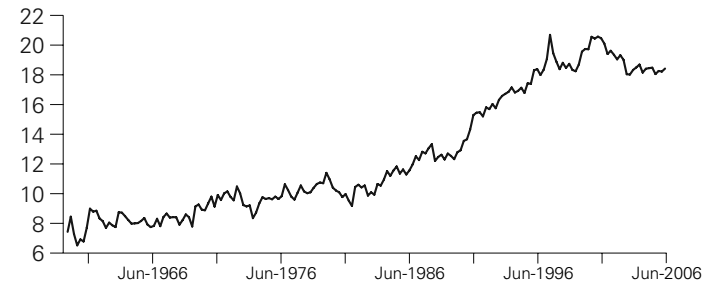
Closer integration in the global economy

The reforms of the nineteen eighties were intended to open Australia up to the world, and they did — though not always in the expected ways. The float of the currency in 1983, for example, was intended to allow the government more flexibility to use interest rates to control the economy. In an open economy like Australia’s, a central bank can fix the exchange rate or it can fix interest rates, but it cannot successfully do both at the same time. One result of the float was certainly that the central bank could use interest rates more freely. The float also produced a more flexible exchange rate, and an avenue through which global financial markets could demonstrate responses to government policy.³⁸ But one unforeseen and important long term result was simply that the average exchange rate after the float was much lower than the average exchange rate before the float. Between 1984 and 1986 the trade weighted value of the currency fell 50%. Over the twenty years from 1986 to 2006 the average trade weighted value of the Australian dollar was 40% less than its value in the fifteen years from 1970 to 1986. Though the change was not as big, the real effective exchange rate also fell after the float. This is the exchange rate against a basket of currencies weighted for Australia’s trade composition, and adjusted to take account of the different inflation rates in the countries concerned. The average real effective rate in the 23 years following the float was 27% less than the same rate in the 13 years prior to the float.

The cheaper currency, the growth of regional markets and the pressure of tariff cuts encouraged Australian exports. By 2000/01, exports were a higher share of GDP than at any time since World War Two and over

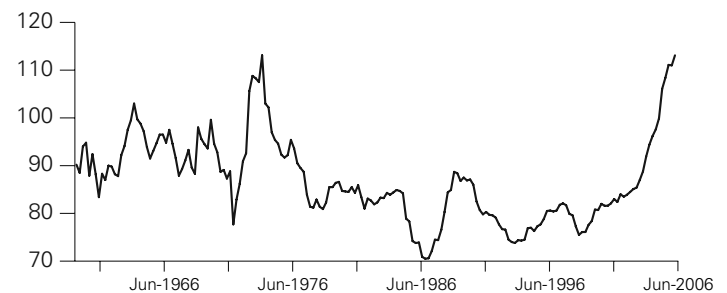
the decade to that year had increased from less than one sixth to over one fifth of GDP. In the ten years to the beginning of the current decade exports accounted for over one third of total Australian output growth, a bigger contribution to overall output growth than in the past forty years.

Figure 13
Exports to GDP
% volumes



The content and pattern of Australian trade also changed. Services exports (including tourism and education) now account for at least as much export income as all of rural exports. So too manufacturing exports have increased tenfold since 1983, and are now consistently bigger than rural commodity exports. Among manufactured exports the most rapidly growing component has been elaborately transformed manufactures.

Figure 14
Australia’s terms of trade
2004/05=100 sa



The direction of exports has changed with the content. The fastest growing markets are in Asia. In the late nineteen eighties East Asia and Japan took half of Australia's goods exports. By 2005, East and Japan took just under 60 % of Australia's goods exports, and the proportion was continuing to increase.³⁹

Finally, there has been a change in the direction of the terms of trade, or the movement of export prices compared to import prices. Though there were large variations, in the quarter century to the late nineteen eighties Australia's terms of trade were trending down. That is, import prices were increasing faster than export prices. Since the mid eighties, and particularly over the last five years, the trend has been moving the other way. This is because the global price of some highly significant imports such as computers and telecommunications equipment has been falling, while the global price of many commodities which Australia produces has been rising.

From the beginning of the new decade, however, Australia's export performance deteriorated. A prolonged drought cut rural exports, the global downturn following the collapse of the technology boom in 2000 cut worldwide demand for imports, and the appreciation of the Australian dollar from 2003 hurt manufacturing and service exports. The volume of exports in 2005 was only 6 % higher than it had been in 2000. Imports boomed along with business and housing investment, causing sharply increased trade and current account deficits. We will return to this deterioration in export performance later.

Though the share of exports has increased spectacularly compared with the post war decades, Australia's new orientation to exporting is a change of degree rather than of kind. What is distinctively new in economic contact with the rest of the world is the extraordinary growth of capital transactions. The flow of foreign capital into Australia in the first quarter of 2006 was twenty times bigger than it had been in the first quarter of 1992. The outflow of capital from Australia to other economies had also increased, and vastly more. In the first quarter 2006 the volume of capital outflow from Australia was ninety five times bigger than it had been in the first quarter of 1992. In the first quarter of 1992 capital outflow was less than one

tenth the size of capital inflow. In the first quarter of 2006 it was well over half the size of capital inflow.⁴⁰ In the earlier quarter the flow of foreign direct investment into Australia was twice the flow of Australian direct investment abroad. In the later quarter the flow of Australian direct investment abroad was nearly twice as big as the flow of direct investment into Australia. In 1991 the level of Australian direct investment abroad was less than half the level of foreign direct investment in Australia. In 2005 — despite the recent change of the giant News Corp from an Adelaide to a Delaware listing — the level of Australian direct investment abroad was three quarters as big as the level of foreign direct investment in Australia.

By the financial year 2001/2002 foreign direct investment in Australia was higher than it had ever been, but even so Australian direct investment abroad exceeded foreign direct investment in Australia. In the eleventh year of the expansion, and for the first time in its economic history, Australia became a net exporter of foreign direct investment. By 2002 a great many major Australian companies had become international businesses, or increased the share of revenue from offshore businesses. Many smaller Australian companies had also developed businesses offshore, or exported a greater share of their output, or both.

It is true that by 2005 many of the iconic corporations of Australia's earlier development were wholly or partly owned offshore. Mount Isa Mines had been purchased outright, CRA absorbed wholly into Rio Tinto. BHP Billiton was still largely managed from Australia, but nearly two thirds of its ownership was offshore. The international media company News Limited, which had begun in Adelaide, had changed its domicile to the United States.

But the wave of offshore investment by Australian businesses created a new generation of Australian owned and operated businesses which earned an increasing share of their revenue offshore and which were global leaders in their fields. The two major retailers, the four big banks and Telstra remain very largely domestic businesses but a great many of the rest of Australia's top 100 public corporations had internationalised by 2005. They included not just the mining giant BHP Billiton but Westfield, Macquarie Bank, CSL, Resmed, Cochlear, Rinker, Boral,

Brambles, QBE, James Hardie and many, many others. Australia does not boast a global brand like Nokia. But there are many big corporations and many more smaller ones successfully competing in global markets and changing the nature of Australian business.

Household saving, debt and wealth

After fourteen years of rising incomes and employment and a vast increase in wealth Australians in 2005 consumed two thirds more goods and services than they had at the beginning of the upswing. This was a markedly faster rate of increase than in the fourteen years to 1991. Real household consumption per head had increased 40 %, nearly twice the gain in consumption per head in the earlier period.

During the decades of post World War Two prosperity households were transformed by telephones, refrigerators, television sets, washing machines and cars. The new households had bigger and better cars, television sets and refrigerators and they also had broadband access, mobile phones, iPods, home computers, and home theatres. More Australians sent their children to private schools, more expected private health care when sick, more took overseas holidays and more planned an amply funded life of freedom and leisure after three or four decades of well remunerated work.⁴¹

In 1994 only one fifth of dwellings had four or more bedrooms, but over half of the homes built in the decade to June 2004 had four or more bedrooms and the share had risen to over one quarter of all homes.⁴² In the garage of their new homes, Australians kept more cars. In the four years to 2005 the number of passenger vehicles per 1000 population increased by 6 %, and (unusually for Australia) the average age of the passenger vehicle fleet declined. The share of sport utility vehicles in passenger cars sales rose.⁴³

Households have developed much more complex balance sheets. Because inflation remained low over the expansion, interest rates have remained lower than the nineteen seventies and eighties. Because the increase in incomes and jobs was so persistent, households became more confident the good times would continue. As a result households were

more willing to borrow on future income. Over the fourteen years to June 2005 household debt quadrupled to \$883 billion. Australians used debt mainly to buy houses — often bigger, newer and more opulently equipped houses. At the same time household financial assets — direct shares, loans, superannuation funds — trebled to \$1.7 trillion. With higher priced houses and more financial assets total household net worth increased 2.7 times to \$3.8 trillion.

It was a curious thing that at the same time as household wealth rose, the national accounts measure of household saving continued to fall. In the last twenty five years saving has consistently fallen as a share of household income. Net household saving was 17 % of household disposable income in the March quarter of 1975, and *minus* 2 % in the March quarter of 2006. This might suggest that recent generations of Australians are more feckless than their parents, and that the nation is consuming rather than investing. Although there has been a big fall in household saving, however, there has been very little change in the share of household consumption in GDP. Real household consumption was 60 % of real GDP in 1975, and it was 60 % in 2006. Nominal household consumption was 58 % of GDP in 2005 and 57 % in 1975.

How can saving fall if consumption remains the same? Part of the answer is that taxes and mortgage interest have increased compared to GDP over the last few decades. As a result household disposable income (which is household income after taxes and mortgage interest) has fallen compared to GDP. It was 76 % of GDP in 1975, and only 62 % by 2005. Households have evidently been sustaining consumption as a share of GDP, while paying more tax as a share of income and more mortgage debt interest. Saving as a share of both disposable income and GDP must accordingly fall. (Even so, gross household saving was 7 % of household disposable income at the beginning of 2006. It becomes *minus* 2 % only when the statistician deducts from gross saving a hypothetical amount to cover the depreciation of dwellings.)

But while it is true that the flow of household saving as a share of GDP has fallen, it is not true that household saving in a wider sense has fallen. In an economic definition and in common sense household saving is the difference between assets and liabilities at a point in time,

not the difference between income and consumption over a period of time. They are obviously related, but over the last three decades and especially in the long boom the value of household assets has been rising very much more rapidly than the value of household liabilities. Saving as a share of gross disposable household income has persistently fallen in the last thirty years. But over the same time period real private sector wealth per person more than trebled. The big reason households didn't save more is surely that they didn't need to.

Equality and inequality

Australian incomes have become more unequal in recent decades. There has however been less change in the income distribution than is often supposed. Australian household income inequality, measured by the Gini coefficient, increased between 1994/95 and 2002/3 — but not by much.⁴⁴ ABS researcher Yongpin Li found that demographic change, primarily a rising proportion of people aged 45 and over (who generally have higher incomes than new entrants to the workforce) accounts for about one third of the increase in income inequality.

Reduction in unemployment and the corresponding increase in employment during the long expansion have reduced income inequality. Looking at changes in household private income (labour and investment income) Ann Harding found the bottom 20% had by far the highest percentage increase between 1994/95 and 2002/3, probably because of the reduction in unemployment.⁴⁵ In terms of share of disposable income the ABS figures reveal that the bottom 20% remained around the same on 7.7% of total income, while the top 20% very slightly increased their share to 38.3%.⁴⁶ Shares were otherwise little changed. Harding shows gross household income growth was reasonably even across postcodes, from the wealthiest districts to the poorest.

Harding's research confirms that the Australian tax and welfare system is highly distributive and remains so. The bottom 60% gained more in benefits than they paid in tax, and it was the reverse for the top 40%. The income tax system is quite progressive, with the top two quintiles paying a markedly larger share of income as income tax than

the three lower quintiles. (Indirect tax is by contrast highly regressive). The benefits are also highly progressive. Harding's research shows that final income distribution was largely unchanged between 1995/96 and 2001/2.

But this research on income inequality is not the end of the story. While real income per head increased 40% between 1991 and 2005, it was dwarfed by the increase in wealth. On Treasury numbers real private wealth per person more than doubled between 1991 and 2004. There is of course a close relationship between wealth and income, but the increase in wealth was much greater and may more powerfully increase inequality of command over resources. The increase in wealth is partly due to the creation of new assets and to saving, but it is mostly due to revaluation of the worth of existing assets — principally houses but also shares in businesses. Those who had wealth in 1991 have seen its value double or triple. Those who had none then will have struggled to get into the housing market and build up positions in financial assets. Since those who had wealth in the first place are more likely to have been old than young, older people will have increased the gap between their age cohort and younger cohorts. This is exactly the finding of the ABS work.⁴⁷

The ABS study covers the period 1994 to 2000 and while it finds the distribution of wealth is very unequal it also finds it did not become more unequal over that period. In 1995 the wealthiest 10% of households owned around 44% of total wealth and in 2000 they owned 44% of the wealth. This seems to contradict the commonsense view that those who have money make money, and it is worth noting that the rate of increase in house prices was twice as fast between 2000 and 2005 as between 1994 and 2000, and the rate of increase in share prices was also much faster in the later period.

Commodities boom

It's widely believed that in recent years Australia had ridden a boom in mining output, exports, and commodity prices, and that these explain the endurance of the expansion through its fifteenth year and into the

sixteenth. It's true that China's larger presence in the global economy, the increase in Australian exports to China, and increases in the prices of Australian exports of coal, iron ore and metals, have been useful in sustaining the upswing. It's true they are likely to become more important in coming years. But neither China nor the commodities boom has been central to Australia's economic performance in the first decade of the 21st century. They may well matter a great deal in the next five years, but they haven't mattered much in the last five.

For all the talk about the commodities boom, Australian output growth has not actually been very strong in recent years. It was under 3% in both the year to December 2004 and the year to December 2005, compared to an average of 3.7% over the whole fourteen year upswing to the end of 2005. It was only 1.9% in the year to June 2006. Exports anyway made only a minor contribution. In 2004 and 2005 exports accounted for only one seventh of total economic growth. In the four years to 2005 they accounted for only one twelfth of output growth. This is in both cases less than the share of exports in GDP, which means exports grew less than the economy as a whole. In 2005, for example, export volumes increased only 1.8% over the course of the year. Because of the impact of a prolonged drought, a more expensive Australian dollar, and the shutdown of some mines and metals refineries, the volume of Australian exports in 2005 was only 6% higher than the volume of exports in 2000. Because of higher prices the value of exports was by contrast 23% higher. The big export increases in recent years have been in iron ore and coal exports to China. Even so in 2005 additional mining output contributed only 0.1% percentage points to Australia's total output growth of 2.7%, and in the year to June 2006 the volume of mining output was down by nearly a tenth.

Exports to China have certainly increased rapidly in recent years, very nearly trebling between 2000 and 2005. In 2000 China accounted for only 5% of Australian goods exports. In 2005 it accounted for 12% of exports. China is now Australia's second biggest export market, after Japan. For all its increased importance, however, Australia's direct dependence on China is quite small. Even by 2005 exports to China accounted for just 2% of Australian GDP, far less than the

export exposures of Korea, Japan, Taiwan or South East Asia to China. Australian imports from China are still considerably bigger than exports to China, and have been growing nearly as quickly.

Australia has seen big increases in the value of some of the commodities it exports to China, and very often the increases have been driven by the addition of China to global demand. Exports of metal ores (primarily iron ore) rose to 17% of all goods exports in 2005, from 12% at the beginning of the decade. Coal exports rose to 16% of all goods exports, double the share at the beginning of the decade. The value of exports of metals ores and minerals rose 44% in 2005, the biggest annual increase in a quarter century and probably ever. The value of coal exports rose an even more formidable 62%.

The increased value of the exports of coal and iron ore in recent years has been astounding, but mostly it reflects an increase in prices rather than tonnages. The increase in the tonnage of metals ores and minerals exported over the period was only 10%, by no means the biggest increase in the last quarter century. The increase in coal tonnages was only 4%, which is well below the average of nearly 7% in annual value increases in the last quarter century.

It is evident that iron ore and coal producers cannot increase their production quickly. This is no doubt partly due to constraints in road rail and port capacity in Australia, shipping capacity globally, and port capacity in China. Mining output, globally, has become more concentrated in fewer companies, which have less incentive to increase production and drive down prices. But it is also the common pattern of mining output. Over the last quarter century the volume of mining output has grown fairly steadily, while the value of output has been more volatile. As it happens, however, the years from 2000/01 to 2004/05 saw only a negligible gain in mining output — largely due to the closure of mines presumed to be uneconomic in the global slowdown in the early years of the decade, and a decline in oil and gold production. In the year to June 2006 mining output actually fell by 9%.

The commodities boom has made a substantial contribution to the value of exports through higher prices, but since the volume of exports has been slow to respond in iron ore and coal and has been under

pressure in other areas, Australian GDP growth has not been much changed by the global boom.

There is one frequently cited channel, other than direct growth in export volumes, through which the external sector might influence Australia's economic circumstances. This is the improvement in the terms of trade, which compares the change in export prices to the change in import prices. When export prices have increased more than import prices the terms of trade are said to improve, and when import prices increase more than export prices they are said to deteriorate. The terms of trade improved 37% from 2000 to 2005, with most of the gain in the two years from 2003.

Not all of this gain is an increase in export prices. Much is due to falling import prices, reflecting a stronger Australian dollar over the period, cheap Chinese manufacturing exports, and continuous falls in the price of computing capacity. In principle, an improvement in the terms of trade means that imports are relatively less expensive in terms of exports, so that there is some sense in which the buying power of Australian incomes has increased.

The impact of the terms of trade is eliminated in the usual calculation of real GDP, which corrects for price movements to reveal changes in volumes. The ABS provides two measures which capture some of the impact. One is to apply the price deflator for imports to exports. If export prices are rising more than import prices, this will show bigger exports than the normal measures. The resulting series is called real gross domestic income. Since a big chunk of the improved export prices goes straight out of the country as dividend payments to foreign shareholders, a variant of RGDI is real net national disposable income (RNNDI), which takes out net income flows to the rest of the world. With the big changes in the terms of trade these three measures have sharply diverged in recent years. In the year to December 2005, for example, the ABS calculates that real GDP increased 2.7%, RGDI increased 5.2%, and RNNDI increased 5%.

These are big differences, but what is the economic impact of the improvement in the terms of trade? It was once said that an improving terms of trade would see increased consumption, increased imports and

increased exports. In Australia in 2004 and 2005 it simply wasn't the case. Import growth slowed over those years, as did household consumption growth. Exports picked up, but only a little. If there was a terms of trade impact at all it was entirely overwhelmed by the inevitable downswing in house construction, the flattening out in house prices, and the associated decline in the rate of growth of household spending.

What increases in exports to China can reasonably be expected over the coming decade? This is directly relevant to the issue of increasing dependency of Australia on commodity exports, and of commodity exports on China. Other than education services almost all of the growth in Australian exports to China has been in raw materials, and mostly in metals and minerals. Iron ore accounts for one sixth of total exports to China, wool for one tenth, coal for one twentieth. This will likely remain true over the coming decade, with liquid natural gas making an increasingly important contribution to an export mix still based on iron ore, coal, copper, alumina and aluminium, nickel, cotton and wool. For both of the major suppliers of Australian iron ore to China, the experience has been similar. By 2004 exports to China accounted for 10% of the global sales of Rio Tinto and BHP Billiton, in both cases double the share of only a few years before.

Between 2003 and 2004 the value of iron ore exports increased 41%, coal 72%, other ores excluding iron and copper 224%, and nickel 88%. The volume of increases was very much smaller. Though difficult to forecast it is highly unlikely that commodity exports would continue to increase at anything like these rates, not least because the base to which the increases are added is becoming so big. After the surge China's import growth should over time slow to something more closely approach the rate of growth of the economy overall. At a persistent GDP growth rate of somewhere between 8% and 10%, however, there is little doubt that China will be an increasingly important customer for Australian commodities. And while the surge in iron ore, and coal and base metals will slow in coming years, Australia is just about to commence liquid natural gas sales. These will also show very rapid growth in the early years. If China is growing at 8% in real terms, however, and if the service sector is (as is probable) expanding as a share

of GDP, the volume of industrial production will likely be increasing around 5% or 6%. It would be surprising if the volume of Australian commodity exports to China increased on average by more than around 5% annually in coming decades.

Will China's voracity for Australian metals, minerals and energy make Australia too dependent on commodity exports, and too dependent on China? Mining exports are very important to Australia, but even so the entire mining industry accounts for only 5% of total Australian output.⁴⁸ Though it is a relatively small component of GDP, over the last 30 years mining output has increased three fold. Because of its much bigger absolute size, additions to mining output (or diversion from other markets) are proportionately less significant than they were in the mid sixties, when demand from Japan and Korea accounted for a bigger share of much smaller mining output. Iron ore is the biggest single Australian export to China but even by 2004, after several years of rapid increases, iron ore exports to China accounted for one third of Australian iron ore exports overall. Its share of other major mineral exports was much less.

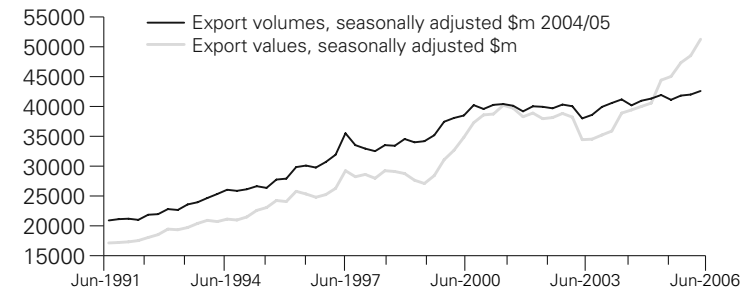
The new current account problem

Australia's imports usually exceeded exports in the three decades following World War Two. The gap was met by a matching inflow of foreign capital. Even so by 1980 the stock of Australia's net foreign liabilities, including foreign debt and foreign ownership of Australian shares and businesses, was equivalent to only one fifth of the annual output of goods and services, or GDP. In the last quarter century, however, foreign liabilities have trebled compared to GDP, posing a serious issue for the Australian economy over the next twenty five years.

Since each current account deficit is matched by an equivalent increase in foreign liabilities, the dramatic increase in total foreign liabilities is due to running larger current account deficits on average over the last quarter century. The current account deficit in any one year is the sum of the trade deficit and the net income deficit. The trade deficit is simply the excess of imports over exports. The net income

deficit is the excess of payments of dividends and interest to foreign owners of Australian debt, shares and businesses, over similar payments to Australian residents owning foreign assets. It is the cost of servicing the accumulation of past current account deficits.

Figure 15
\$m



The current account deficit can be regarded as the sum of those two components, the trade and income deficits. It can alternatively be regarded as the gap between what Australia produces in any one year, and what it absorbs or uses by way of consumption and investment. Regarded from this point of view the current account deficit must be the difference between the amount Australia saves, and the amount it invests in Australia. A current account deficit permits a country to invest more than it saves, while a current account surplus means it saves more than it invests within the country.

Why has Australia's current account deficit on average increased over the last quarter century? One big reason is that Australian saving as a share of GDP fell persistently from around 1973 to 1991. This was related to the slowdown in the growth of income and living standards, the rise in unemployment, and especially to big government budget deficits which began to emerge in the economic difficulties of the early nineteen seventies. The deficit for all Australian government expanded to 2% of GDP in 1974, and by the time the Fraser government left office in 1983 it was 6% of GDP.⁴⁹ While investment also fell at first

as a share of GDP, it began to recover in the late nineteen seventies. The current account deficit increased as investment was restored. The expansion of the deficit may have been facilitated by the float of the currency and elimination of capital controls in late 1983. These changes permitted households and businesses to access a higher level of foreign savings. The elimination of capital controls did not make nearly as much difference to the investment saving gap, however, as the persistent decline in saving which long preceded the float in 1983.

Bothered by the growing current account deficit the Hawke government built budget surpluses, helping to boost national saving by 4% of GDP between 1986 and 1989. Investment rose even faster, however, and instead of narrowing the current account deficit widened. The average size of the current account deficit increased from 3% in the previous decade to 4% in the nineteen eighties. By the beginning of the nineteen nineties net foreign liabilities had much more than doubled, and were now equivalent to 40% of GDP.

After falling through the early nineties the current account deficit rose again in the mid nineties, contracted after the turn of the decade, and expanded again. The record deficits were not caused by falling levels of saving. Though household saving plummeted after 1999, business saving was quite strong and so was government saving. As a share of GDP, national saving has been close to 20% since the early nineteen nineties. The increased current account deficits corresponded to increased investment. Some of this was business investment, which in real terms boomed to a half century high as a share of GDP by 2005. Some of the increase of the deficit also matched an increase in housing construction as a share of GDP as Australians built more and bigger dwellings.

By 2006 net foreign liabilities matched just short of 60% of GDP. The dividends and interest required to service the net liabilities cost nearly 4% of GDP. In 2005 the current account deficit reached a new forty year record of 6.5% of GDP.

The nature as well as the size of foreign liabilities also changed. In the late nineteen nineties Australian companies began investing offshore in a big way. Their offshore equity investment had to be matched by a comparable inflow, which took the form of increased

foreign debt. This additional debt was mostly borrowed by Australian banks in offshore markets. This meant that the composition of net liabilities changed. There was more debt, less equity. In 1980, when net foreign liabilities were 20% of GDP, debt accounted for a little over one tenth of those net liabilities. By 2004 net foreign liabilities had increased to over 60% of GDP and more than four fifths of net foreign liabilities were debt liabilities.

By 2005 Australian banks had gross foreign debt exceeding \$400 billion, or equivalent to around half of their total loan assets. Most of this was borrowed in US dollars in global financial markets, mostly the inter-bank market.

Economic lore has it that capital importing countries are particularly vulnerable to shifting financial flows in the global economy, especially where the economies are also completely open to capital flows, have floating exchange rates, and also have very large foreign debt owed by the banking system and denominated in foreign currencies. During the Asia crisis Korea, Indonesia, Malaysia and Thailand found the combination of current account deficits and even partially open capital markets lethal. The Australian economy is around the same size as Korea's. At the time of the Asia crisis and beyond, Australia had a bigger current account deficit as a share of GDP than Thailand, larger foreign debt than Korea, and lower foreign currency reserves than Indonesia. The Australian dollar tumbled during the Asia crisis, but otherwise the financial system was completely stable. No issue was raised then or since about the soundness of Australian banks, no query was raised about the capacity of the country to service its foreign debts, and over the whole period of the crisis and thereafter foreign capital inflows into Australia rose rapidly to levels never before experienced.

The explanation for Australia's invulnerability despite its apparent precariousness was not that foreign debt was lower, nor that in the first instance it was borrowed in Australian dollars nor that Australia was less open to capital flows. On the contrary, foreign debt was higher, the foreign debt was often initially denominated in US dollars, and the economy was more open to capital flows than any of the economies of Asia. The explanation is that Australia had had a floating currency

and open capital and foreign exchange markets for over a decade prior to the crisis. During that period it discovered that foreign individuals and institutions had an appetite for Australian and New Zealand dollar denominated debt, which paid a higher interest rate than debt in yen, US dollars or euros. This meant that Australian banks borrowing in US dollars could swap their obligations with offshore issuers of Australian dollar debt.

In essence the transaction depends on the slightly different attributes of Australian banks compared with other banks in borrowing in global markets. Australian banks can plentifully and cheaply borrow US dollars in global markets. But in those same markets there are well known local banks and institutions which can sell Australian dollar debt to their clients, who are seeking a somewhat higher interest rate. It is then profitable for the Australian bank to swap the lower interest rate but US dollar denominated debt with the foreign banks, receiving in return an obligation to pay somewhat higher interest on debt which is denominated in Australian dollars.

The resilience of the Australian economy thus depended not on Australia's distance from the world economy or caution over foreign borrowing, but precisely on its integration into the global economy and particularly its integration into a global financial system. That is why, when in November 2005 Chilean finance minister Nicolas Eyzaguirre Guzman asked him for the secret of Australia's economic success, Reserve Bank of Australia Governor Ian Macfarlane explained that is was the ability of the country to borrow in its own currency.

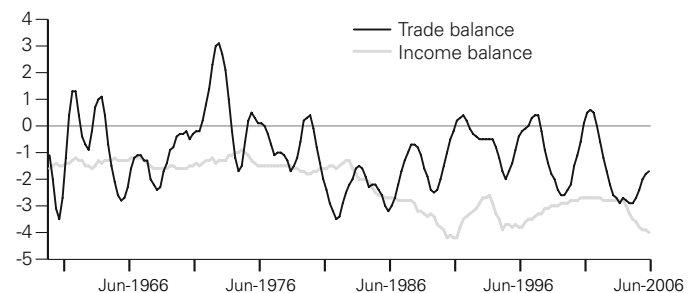
There are several points of vulnerability in this method of financing the current account and of moving the exchange rate risk offshore. One is that it depends on the creditworthiness of the Australian banks. This in turn depends on the creditworthiness of Australian households. The stock of bank loans to Australian households is twice as big as the stock of loans to Australian business. This is one of the reasons the Reserve Bank of Australia was concerned by the housing boom from 1996 to 2004. If the boom had gone on long enough, if the inevitable collapse had been big enough, there might have been sufficient distress among Australian households to injure the credit

worthiness of a major bank. This is after all what happened in the early nineteen nineties. If foreign banks became reluctant to lend, the Australian dollar would have to drop far enough or Australian interest rates rise far enough to induce the capital inflow required to match the current account deficit.

Another difficulty is that while the banks are private businesses, their lenders may regard their debts as having a quasi government guarantee. As Moody's executive Deborah Schuler explained to the ABC's Stephen Long in June 2006, '... as long as governments need to rescue banks in order to save the economy, and as long as they are willing to do it, we think our ratings should reflect it'.⁵⁰ If foreign lenders to Australian banks think they have some sort of implicit government guarantee, they will more readily lend and at a lower rate of interest. Australia may as a consequence be running a larger current account deficit than a truly private market would permit.

Figure 16

Ratio to GDP (both past year)
Percent

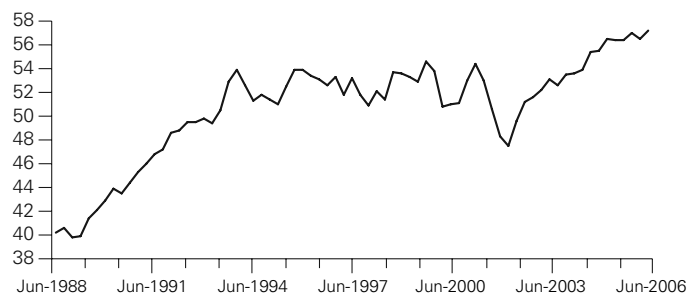


Finally, the method of financing deficits is very vulnerable to changes in the interest rate spread between Australia and the rest of the world. It depends on Australia paying higher interest rates than those obtainable elsewhere. It is also vulnerable to changes in expectations about the exchange rate. If the Australian dollar is expected to fall, it is hard to sell Australian dollar debt to foreigners and a currency decline becomes a self fulfilling expectation.

Australia's contemporary trade deficit, the difference between exports and imports, varies between 1% and 4% of GDP. These days the net income deficit, the difference between interest and dividends paid by foreigners to Australian residents, and interest and dividends payments by Australians to foreigners, is persistently bigger. By 2006 it was 4% of GDP, and increasing. For many decades Australia's foreign liabilities have grown faster than its income, which provides the means to service the liabilities.

Arithmetic tells us if net foreign liabilities are equivalent to 60% of GDP, as they are now, then a current account deficit any higher than 3% of GDP will see foreign liabilities continue to increase as a share of GDP. This assumes that nominal GDP grows at 5% a year. But if foreign liabilities are 60% of GDP and the average return on those liabilities is 6%, then the net income deficit is already 3.6%. The arithmetic leads to the simple but inescapable conclusion that if Australia wishes to slow the rate of growth of foreign liabilities to the rate of growth of the economy as a whole, it must run a persistent trade surplus. How Australia addresses this problem of rising foreign liabilities as a share of GDP is one of the critical unsettled issues to emerge from the long expansion.

Figure 17
Ratio to GDP (past year): Net international investment position
Percent



Why the upswing endures

Why has the expansion which began in the fourth quarter of 1991 lasted so long? We have argued that it has its origins in the economic reforms of the 1980s and 1990s, and in contemporary globalisation. But while this may explain how it began and some of its characteristics, it does not explain why it has been so persistent. Part of the answer must be that it is part of a worldwide phenomenon. Volatility in output growth declined in most market economies in the last two decades compared to the two decades which preceded them. In these economies manufacturing has become less important compared to services, and the swings in demand for services are less abrupt than for manufactures.⁵¹ Businesses have learned to maintain very small inventories, so the swings in output caused by the big changes in inventories are minimised. Deregulation, the growth of cross border trade and capital flows, globalisation of demand and production have increased the flexibility of economies, and the responsiveness of demand and supply to price signals.

It is also true that in most economies inflation declined into the late eighties and early nineties, and central banks have found it easier to keep inflation under control without stopping economic growth. This is particularly evident in Australia. The immediate cause of the recessions of 1981/82 and 1990/91 and of all post World War Two slowdowns including the 1961 credit squeeze and the 1974 'short sharp shock' was tighter monetary policy, effected as either credit restrictions or higher interest rates (or sometimes both). Part of the explanation of Australia's longest boom therefore has to be the story of what did not happen — of why the Reserve Bank did not deliberately or accidentally stop it. Good demand management helped. For example, the RBNZ terminated the otherwise very similar upswing in New Zealand by resisting with higher interest rates the depreciation of its currency in the wake of the Asia crisis. The RBA did not. There was also good luck. It was good luck for example that interest rates had been cut over the year before the Asia crisis, and Australian domestic demand was expanding when it struck. It was

also a sort of luck that Australia, as it happened, did not in any big way produce high technology goods, so that when the global downturn hit this sector in 2001 Australia was little affected.

As the expansion proceeded, the size of the cash rate changes the RBA believed necessary to manage demand generally decreased while the time period over which they were made generally increased. In the first tightening after the recession, the RBA increased the cash rate from 4.75% to 7.50% within five months. Two of the increases were 1%, the third was 0.75%. By contrast in the most recent tightening episode the RBA has increased the cash rate from 4.25% to 6% in widely spaced 25 basis point steps over more than four years. It is widely believed that the RBA will be able to sustain inflation in the range of 2% to 3% over a long period, which makes it easier to sustain it.

The federal government's fiscal policy has also been helpful, with the consistent surpluses adding to national saving. Reasonably stable trends in the surplus minimise demand shocks which government might otherwise create. But the existence and predictability of budget surpluses is itself the result of a sustained economic upswing, which reduces the need for support for the unemployed at the same time as it increases tax revenue. If the economy went into recession, the federal budget would go back into deficit. This is both desirable and intended, and encompassed by the federal commitment to balance the budget 'over the course of the economic cycle'.

The success of the Australian economy over those years was not simply that the RBA had by and large managed demand well, or that Australia had been as fortunate in what it did not do as what it did, or that the federal budget was generally in surplus. It was also based on some underlying trends, most of which commenced in the previous decade, which made the central bank's job easier.

The most important of these was a sharp slowdown in the rate of growth of labour costs per unit of output. Over the fourteen years to the middle of 2005 the total increase in labour cost per unit of output was 27% — compared to an increase of 144% over the previous fourteen years. It was this slowdown in labour cost growth that underwrote lower inflation. The slowdown in labour cost growth was due to two things.

One was the persistently faster rate of growth of labour productivity or output per hour worked. It increased 40% in the fourteen years to 2004/5 compared to 24% for the fourteen years to 1990/91. The increase in productivity helped to control the rate of growth of wage costs per unit of output. Faster labour productivity growth permitted faster growth in real wages compared to the 1980s (though not to earlier decades) as well as an increased profit share.

But the rise in output per hour worked was not nearly as important in controlling wage costs per unit of output as the slowdown in the rate of growth of wages, which was itself related to lower inflation. The all-employees measure of average weekly earnings increased just 63% in the fourteen years to September 2005, compared to 190% in the previous fourteen years.

The increase in labour productivity growth is important in explaining the faster rate of growth of output per head. Labour productivity growth also accounted for a little more than half of all of the output growth over the period, while additional hours worked accounted for the remainder. But the key to understanding the sustained fall in *inflation* is the slowdown in wages growth rather than the increase in labour productivity — though productivity growth did contribute to keeping the growth of labour cost per unit of production quite moderate.

Chapter 5

Where Australia is going next

The new pattern of the global economy

As we have seen, economic policy changes in the nineteen eighties and early nineteen nineties created the conditions for the record expansion. The changes to industrial relations were particularly important, because they both slowed the growth of nominal wages, and encouraged higher growth in productivity — the two essential prerequisites of the long boom, and the keys to its persistence. But by 2006 Australia had had a floating currency for 23 years, and the major tariff cut programs had been initiated 18 years before. Even enterprise bargaining was more than 13 years old. The proportion of the workforce covered by these bargains had already reached close to 40%, where it has stabilised, by the mid nineteen nineties.

The boom has long survived its first causes, and by the second half of the nineties another major force was at work. The expansion has been sustained and extended by a fresh wave of economic globalisation — a more powerful and comprehensive wave than those which had preceded it. The global economy now includes most of the world's people and most of the world's output. It is characterised not only by a rapid growth of

cross border trade in the Asia Pacific region, but also by an explosion of cross border capital flows and investment, a striking global convergence of consumer tastes, and a rapid proliferation of new technologies such as the internet, desktop computers and mobile phones which has made cross border communication cheaper, more convenient, and more ordinary.

Globalisation in this sense is quite recent. Four decades ago the global economy was Western Europe, North America, and Japan, with Australia, New Zealand, South America and South Africa playing much the same role as the Middle East oil producers do today in supplying raw materials to the more complex north economies. It was only a little over three decades ago that the post World War Two Bretton Woods system of fixed exchange rates and restricted capital flows collapsed. Not long after the global economy began to expand to include South America, and parts of North and South East Asia as these economies became more open or looked to export growth. China did not even begin its remarkable shift towards a market economy until 1978, and for the next decade its participation in the global economy increased only gradually. It was only following the collapse of the Soviet Union at the end of the eighties that Eastern Europe and Russia began to integrate more fully into the global economy, and only over the last decade that India has begun to open its economy to the world.

In the most recent phase the global economy has for the first time incorporated billions of new and cheap workers and billions more consumers. Three decades ago the global economy incorporated barely two billion people — North America, Japan, Europe, parts of East Asia, Australia and New Zealand. Today it includes all six billion. One consequence is that manufacturing prices have been falling, while raw material prices have been going up. As it happens the expansion has also included the world's big savers — China, most of the rest of East Asia, and India. They have a huge demand for investment, but even so savings exceeds investment.

The new global economy has flourished despite a global crisis following the Mexican financial collapse in 1994, the Asia financial crisis of 1997, the global crisis following the Russian financial collapse and the collapse of the LTCM hedge fund in 1998, despite subsequent crises in Brazil and Argentina, despite the global technology boom in

the second half of the nineties, the bust in 2001, and the global recession which followed, despite terror attacks in the US, the war in Iraq, and the trebling of the global oil price since 2001. Though interdependence has increased, so has resilience.

Above all, the global economy is bigger and richer. Never before in human history have we witnessed the production of goods and services, of wealth, on the scale, complexity and abundance we now witness.

The complete manifestation of contemporary globalisation is thus a relatively recent phenomenon, one which did not reach full force until the last decade. As it happened this new wave of globalisation coincided with domestic reforms aimed at increasing Australia's exposure to the global economy, and also with the opening up of the entire East Asian regional economy to the global economy.

Most economies are being influenced by economic globalisation. Australia is being influenced more so than most, because it now has an economy which through happenstance and design is peculiarly adaptable to the demands of globalisation, and unusually able to exploit the gains from it.

Australia has a long history of global economic integration. It was in many ways more open to global trade and capital flows in the 19th century than it is today. When Australia was a developing pastoral economy over most of the nineteenth century immigration was much bigger compared to population size, the current account deficit and net capital inflow were a bigger share of GDP, and trade was also a higher share of GDP than it is today.

For two hundred years Australia did reasonably well in the global economy, but the contemporary configuration of the global economy is more congenial for Australia than it has been for over a hundred years. Australia is English speaking, at a time when internet technologies are proliferating, and English has become the global language. It is a service economy, and has readily adopted suites of new technologies which are well suited to affluent service economies. It has been able to invest more or save less because it can freely draw on global savings. It has proved robust to competition. It has gained from falling manufactures prices, and rising commodity prices.

An increasingly important part of this new global economy is a new East Asian economy, one focussed on dramatically increased trade within the region and based on China rather than Japan. It accounts for most of the world's growth, commands most of the world's foreign exchange reserves and finances most of the US current account deficit. Formidably protected by reserves and refreshed by new political leadership in many of the key nations, East Asia is acquiring greater authority and autonomy.

Driving the closer integration is the growing weight of China as the focus of the regional economy. As the region's economic autonomy has increased with internal trade, so too has its economic authority. Increased foreign investment in the region and swelling trade surpluses are matched by increased East Asian official capital outflow, predominantly into US treasuries. East Asia is thus strengthening its balance sheet with the rest of the world by acquiring risk-free bonds abroad in exchange for risky direct investment at home. East Asian official purchases of US dollar assets keep their exchange rates lower and the US dollar and current account deficit higher than they would otherwise be, at the same time as they add to East Asia's already vast reserves. This is likely to be an enduring circumstance.⁵² So too is the trade integration of the region, now being formalised in preferential trade deals between its members. Within a few years much of the trade between East Asian economies will be transacted under agreements which minimise barriers between members of this newly emerging trade community, while leaving in place barriers against those left out. The community will be protected by vast foreign reserves, available to member countries under arrangements already negotiated. And its hub will be China, a state with the political weight to match its growing economic might.

Well over half of Australian exports are sent to East Asia. The increased integration between Australia and China is part of this regional pattern. Australia trebled goods exports to China in the first half of the first decade of the twenty first century, an increase which vividly demonstrated to Australian government and business that China's promise as a great economic power was being fulfilled. Even

at the end of the last decade Singapore was a more important export market for Australia than China. By the middle of this decade China had already overtaken the United States as Australia's second biggest export market. With trade growth underpinned by the strong likelihood of a bilateral free trade agreement, China may well overtake Japan as Australia's biggest export market within another couple of decades.

China is avowedly communist and undemocratic and politically repressive, differences which do and will continue to cause fundamental problems in the relationship between China and Australia. But there are considerable strengths in the relationship too, and not just in China's size and appetite for Australian raw materials. China is not bothered by Australia's generally European culture and ethnicity, as some other Asian nations are. It is not bothered by Australia's religion or lack of it. It shares with Australia a straightforwardly commercial view of the world. It is complex, sometimes corrupt, but in the end more open and accessible to Australian business interests than for example Japan. It is and will remain very sensitive on the point of Taiwan but its international role in recent years has been entirely helpful — particularly during the Asian crisis, and now over North Korea.

Unlike Japan, China has nuclear weapons and it has the manpower and magnitude, the statecraft and will to engage in prolonged strategic competition with the US. It is the first time in our region since 1945 that a nation has emerged capable of such competition. But unlike the Soviet Union, China is completely immersed in the global economy, and its continuing success depends (as does that of the US) on the success of the global economy, its rules and institutions. This is a big difference. China may or may not be a strategic competitor for the US, but it is certainly and necessarily an economic partner. The United States and East Asia have renewed with greater scope the pattern of East Asian surpluses corresponding to US deficits. The difference now is that China has replaced Japan as the driver of the process. The US dollar, the US standard of living, the ability of the US to consume or invest 5% of GDP more than it otherwise could, are now conditioned by this symbiosis⁵³ between East Asia and the US.⁵⁴

What kind of choices may the increasing connection with the Chinese

economy oblige Australia to make? The most obvious difficulty is that China will be the centre of the East Asian economy, with which Australia will be more and more integrated. But Australia is a security ally of the United States, shares many economic and political characteristics with the United States, and with some important reservations supports the US role in global economic governance. There will undoubtedly be tensions in this new configuration, but it is important to recognise the symbiotic relationship between the US and China.

China's economic role in the world is changing, and so is that of the United States. The end of the cold war left the US as the only superpower in the security realm, but not in the economic realm. On the contrary, in the economic realm the US is slowly becoming less dominant in the global economy, and more dependent upon it.

It may now spend more on defence than the next ten nations combined, but the US economy has been in relative decline for half a century. Using Angus Maddison's numbers it accounted for around one third of world GDP in 1950, and today accounts for one fifth.⁵⁵ Using purchasing power parity measures for exchange rates the CIA World Factbook and the IMF show the US accounted for a little under one third of the world economy 25 years ago, and one quarter today. This relative decline is both desirable and inevitable given the rebuilding of Japan and Germany in the sixties, the rapid development of South East Asia and North East Asia in the seventies and eighties, and latterly the rapid growth of both China and India. So long as the global economy grows faster than it does, US output will account for less of global output. So long as China, India and other rapidly developing countries grow faster than US, they will gain in relative size and the US will lose in relative size. This is the result of globalisation, which is itself the result of policies successfully pursued by the US since the early years of World War Two.

It is not just relative growth but also the pattern of growth elsewhere that has challenged US economic hegemony. The global economy is not a collection of small economies and one big one. Though growing more slowly than the US, Western Europe has integrated with one trade policy and now one monetary policy. It has thus become an economic unit of

size roughly equal to the US and will soon be substantially bigger. China is growing much faster than the US, and has advantages in population, natural resources, land mass and so forth that Japan for example does not have. China is now half the size of the US and continuing to gain. US output is still twice China's output, but the addition to China's output each year is already bigger than the addition to US output each year.

At the same time as the US is becoming relatively less important in the global economy, it is also becoming more dependent on the global economy — as we all are. In 1960 US exports were one twentieth of GDP; today they account for over one tenth. After World War Two the US was both the world's great creditor, and a continuing capital exporter to the rest of the world. No longer. In 2006 the current account deficit exceeded 6% of GDP, and was no longer thought excessive. Far from being a net creditor to the rest of the world, it is a net debtor. By 2001 for example the value of US direct investment abroad was USD 7 trillion, while the value of foreign direct investment in the United States was USD 9 trillion. Net foreign liabilities have now reached over 20% of GDP. These financial dependencies on the rest of the world are complemented by an increasing dependence on imported energy and manufactures.

It is sometimes said that the US economy has such a commanding lead in technology and productivity the relative size argument does not matter. It is certainly a very successful economy. It today maintains a lead in computer software and hardware design. But it long ago joined the pack or fell behind in consumer electronics, commercial aviation, motor vehicles, medical drugs, agriculture, mining, and heavy industries such as steel making. The US strength is not as apparent in technology as in labour market flexibility, depth and flexibility of capital markets, rule of law and the legal and cultural framework for a market economy, marketing and business administration, the education system, and internal transport and communications.

In the political realm the disintegration of the Soviet Union left the US as a sole superpower. In the economic realm the result was quite opposite. It certainly extended forms of the market economy to Eastern Europe, Russia and the former Soviet Republics of central Asia. It was a triumph for the values of personal liberty, freedom and democracy as

well as the market economy. But the triumph of the market economy was not the triumph of the US economy, though the long boom of the Clinton years obscured this. On the contrary, the end of the Cold War eroded the economic authority of the US. It removed the Soviet threat to Western Europe and China. It allowed the reunification of Germany. It removed the Japanese and German dependence on the US nuclear umbrella. It allowed a wider political separation of the US from Western Europe. It took the Soviet Union off the board — but the Soviet Union was never an economic competitor of the United States, never a serious participant in the global economy, and never a member of the post war institutions of global economic governance — the World Bank, the IMF and the GATT.

Whatever may be true of the defence and security realms, the global economic context for the Australian economy is clearly not based on a unipolar global economy or a hegemonic US. The really important trends for Australia arise from the swift reconfiguration of the regional economy as regional leadership passes from Japan to China, and from the increasing weight of East Asia in the global economy.

Australia's success over coming decades will depend even more on its engagement with the global economy. The global economy is now bigger and more complex, Australia is now more exposed to it, it has begun to exhaust the major gains possible from domestic institutional and policy changes, and it is now more vulnerable to unfavourable developments which could influence the global assessment of Australian credit.

But Australia's foreign economic policy cannot be based on the US. The US is not hegemonic in the global economy, cannot now set the rules, and will be less rather than more able to do so in the future. US economic policies are not necessarily in Australian interests. Examples of conflicts include the Law of the Sea, the Antarctic Treaty, extended copyright protection, parallel importing rules, Basle 2 for domestically focussed institutions, resistance to collective action clauses in sovereign bailouts, US rhetorical support for unfettered capital flows, extended rights of national treatment and compensation, and a distinct US preference for hub and spokes or bilateral free trade agreements over multilateral trade agreements. Australian national interest and that of

the United States are often similar, but the US does not always act in its own national interests. Moreover Australia may often differ from the US, and the US will often not have strong views, information, policies or guidance on issues which are important to Australia but not to Washington.

Australia depends not on the US economy but on the success of the regional and global economy, the development of which has long outrun the development of the institutions of global economic governance. The end of the Cold War has increased the centrifugal forces in the global market economy. Socialism is extinct as an alternative model, but this reveals the variety of models of the market economy, and sharpens the differences of economic interest between them. Accelerating economic globalisation and the consequent increase in global interdependence raises an increasing number of issues related to trade flows, capital flows and crisis response to which the existing institutions of global economic governance are ill suited to respond. This is most apparent in the WTO, the cockpit of trade tensions and the only one of the global economic institutions able to reflect the contemporary configuration of forces. It was apparent in the prolonged fight over the appointment of a Director General to succeed Renato Ruggiero, in the conflict in Seattle, and in the breakdown in Cancun. There are more players, more big individual players, fewer pressures to find agreement.

Problems in other global institutions are just as deep seated, though less apparent. The IMF and World Bank governance arrangements are based on the post World War Two configuration of economic authority, and make a poor fit with the contemporary configuration. The Bank of International Settlements is dominated by the G11, another historical remnant, while the G8 has lost any real effectiveness or plausible agenda.

In such a world influencing rules to suit Australian interests depends on our political success in building alliances. These alliances will depend on the issue and we need to remain sufficiently flexible to be part of one coalition on one issue, and another on another. Australia cannot, for example, make a habit of supporting the US against Europe or the US against China or allow itself to be regarded as a stalking horse

for the US. In this respect the current Australian government has in the economic realm been quite rational — for example in backing Supachai against Moore (and the US) for the top job in the WTO, and in the prime minister's personal attention to the relationship with China.

Australia thus finds itself in an economic realm which raises considerations quite different to those of the political or security realms. The dependence of all of us including the United States on the global economy forces a degree of multilateralism and interdependence which can sometimes be evaded in the security realm. The emerging Chinese dominance of the East Asian region, its symbiotic relationship with the global economy and with the United States, dictates that Australia must resist tendencies for political conflict between the US and China, and refuse to be drawn into a choice between them. It is not sensible for example for Australia to allow itself to be drawn into military discussions between Japan, India and the US which have as their unspoken purpose an alliance against China. The contemporaneous honouring of Hu and Bush in Canberra in 2003 underscored the way in which both major political parties in Australia interpret the national interest.

Chapter 6

The challenge

Australian model

Because the upswing has been so long, so durable under challenge, so pervasive in its impact and so subtle in its causes and consequences, so closely related to key global issues such as the pace of globalisation, the selection of exchange rate regimes, industrial structure, and household debt, the Australian experience is also relevant to the wider global economic debate. The Australian experience demonstrates for example that an economy can extract substantial productivity gains from adopting IT and other technologies which it does not itself produce. It also demonstrates that it is possible to have a stable financial system which is also open to global capital flows despite having very low foreign exchange reserves, very large US dollar foreign debt, a large current account deficit and a floating exchange rate. It demonstrates that it is not necessary to be preeminent in technology or in manufacturing to have a strong economy, that it is possible to build growing wealth on the service industries, and that it is possible to substantially increase

service industry productivity. It demonstrates that it is not necessary to have a few very large and dominant global businesses to successfully export and that by contrast it is possible to build export manufacturing success on a wide mix of smaller and bigger companies in both mass markets and niche markets. It demonstrates that household demand supported by increasingly complex household balance sheets and higher borrowing is quite compatible with continuing economic success.

Australia's recent experience is thus relevant to wider debates on the nature and direction of economic globalisation. So too the next stage of the expansion will be relevant to the global debates about two key issues, productivity and current account imbalances.

Growth slowdown

After fifteen years the great issue for Australia is whether the rate of growth of output and of living standard can be sustained into coming decades. There will certainly be periods of contraction, but if they are mild and short they will not preclude trend improvements. The big question is not whether the occasional downturn can be avoided, but whether something like the rate of growth of productivity in the years between 1991 and 2004 can be regained and then sustained in coming years.

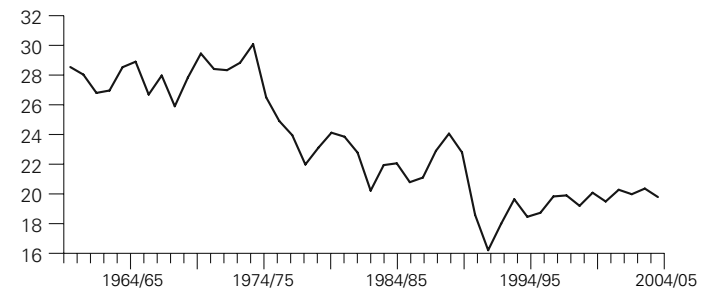
In the fifteenth year of the boom the then RBA Governor Ian Macfarlane argued that henceforward output growth would more commonly be in the twos and threes than the threes and fours. This implies that average output growth slips to 3% from the 3.6% or so recorded on averaged over the past fourteen years.⁵⁶ Pointing to the ageing of the workforce, Treasury Secretary Ken Henry has offered much the same view. The pool of unemployed is now so low that it cannot be expected to make as big a contribution to employment growth as it has over the last 15 years. The baby boomers are beginning to retire from the workforce, and the succeeding generations entering the workforce plus immigration will one day be sufficient only to replace those leaving.

It may take some time for potential growth to slow. It is true that the pool of unemployed had fallen from its peak of over 900,000 to

only 556,000 in 2006, but the reduction in unemployment matched only 16% of the jobs created in the previous 14 years. Unemployment fell by 380,000 while the number of employees increased by 2,400,000. Even if there is no further fall in unemployment the expected growth in the working age population would be on average over one per cent for many more years to come.

And while capacity idle in 1991 had long been used, much more had been created. Excluding housing, the net capital stock had increased 41%, far faster than the total increase in hours worked of 26%. With advancing technology the quality of capital equipment had improved. The ABS estimates that the volume of services provided by capital in most industries (excluding housing, government administration, education, property and business services, health and community services and personal services), was 63% higher in 2004/5 than in 1991/92.

Figure 18
Gross national saving as a share of GDP
Percent



Nonetheless workforce growth will slow as the inevitable result of families having fewer children and net immigration falling as a share of total population. With slower workforce growth Australia will only be able to sustain higher living standards by increased productivity.

For over a decade that rapid and sustained growth in productivity was driven by the internal economic reforms. The most important of these were tariff cuts, the float of the currency, and the shift to enterprise

bargaining. All three forced major changes in industry structure. The effect of all three has faded with time, however, and no likely economic reforms have the same capacity for forcing change. It may well be worthwhile to reduce the top marginal income tax rate, or to encourage more workforce participation by older Australians or to increase the incentives to move from social security support to paid employment, or to negotiate reduced import barriers against Australian farm products. All of these reforms would help, but none will contribute to a significant change in the rate of growth of output per hour worked or per dollar invested in machinery.

The inevitable slowdown in economic growth will make servicing foreign debt more onerous, which makes a perpetual trade surplus all the more necessary, and which in turn depends on entrenching competitiveness.

Because the gains from domestic reforms will fade, in coming years the biggest gains in Australian productivity will depend upon business investment, and technical innovations (mostly imported), and above all on improving the skills of the workforce. Australian success in increasing output and incomes per head will thus depend much more on advances in the technological frontier of the global economy and much less on internal economic reform.

The current account challenge

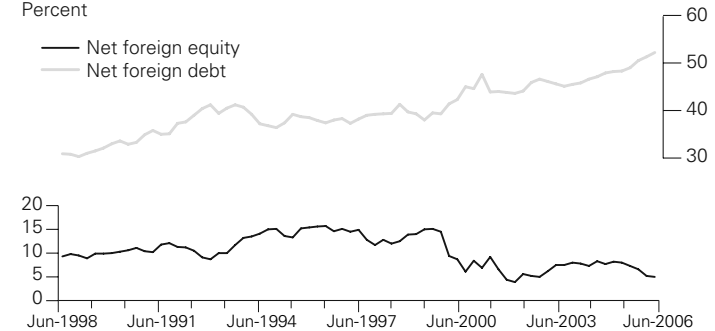
As we have seen the current account deficit reflects the gap between domestic saving and domestic investment, and allows Australia to invest more than it saves. Gross saving has stayed close to 20 % of GDP for the last decade. The increase in deficits over that period therefore must be due to increased investment rather than a fall in saving.

In principle the additional liability created by the current account deficit is matched by additional investment, which will service that liability. Not all the additional investment, however, is capable of servicing the additional liability

About half of the increased investment in the last decade has been in the construction of houses. These houses provide many valuable services, but there is only a tenuous link between the quality and cost of the housing stock, and a nation's capacity to export and thus service debt.

Business investment has certainly increased, but not all of business investment is capable of servicing an increased liability. Depending on the asset type, from half to two thirds of total investment only replaces worn out capital. Since this does not increase the productive capacity of the existing capital stock it cannot add to output.

Figure 19
Ratio to GDP (past year)
Percent



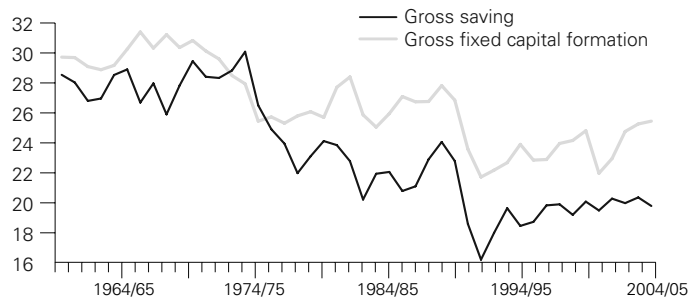
The best measure of an additional capacity to service debt is the addition to net capital stock. This varies but in the period 1990/91 to 2004/05 it averaged around 5 % of GDP. There is a good argument for saying the average addition to net capital stock (excluding housing) should also be the average maximum sustainable current account deficit. If the current account deficit is bigger than the addition to net productive capital stock, the additional liabilities must be bigger than the additional productive assets.⁵⁷ That would mean part of the offshore borrowing was used to sustain consumption and house building. Since the additional debt has to be serviced, the result could be a relative decline in living standards in future years.

This rule sets a desirable limit to the current account deficit. It does not say the foreign lenders will not provide the funding to exceed it. It does say that beyond about 5 % of GDP Australians are using foreign savings to fund household consumption, house building, and the depreciation of existing business capital rather than the creation of assets which would service the new debt.

A deficit of around 5% of GDP is actually higher than the 4.3% average of the fourteen years of expansion to the end of 2005, and would therefore not present a difficult challenge. It will increasingly become so, however, because of the iron arithmetic of the current account.

Figure 20

National saving and investment
% GDP



The first proposition in this arithmetic is that the Australian economy grows by around 5% a year on average, including both increase in the volume of goods and services and the increase in their prices. The second is that net foreign liabilities are now equal to 60% of GDP. The third is that foreign lenders and investors expect to receive a return of around 6% on their Australian assets

Those three propositions have some startling implications. The first result is that any current account deficit higher than 3% of GDP will see net foreign liabilities increasing as a share of GDP (this is because 3% of 100 is 5% of 60). The second is that the cost of servicing existing liabilities is 3.6% of GDP. (This is because 6% of 60 is 3.6% of 100)

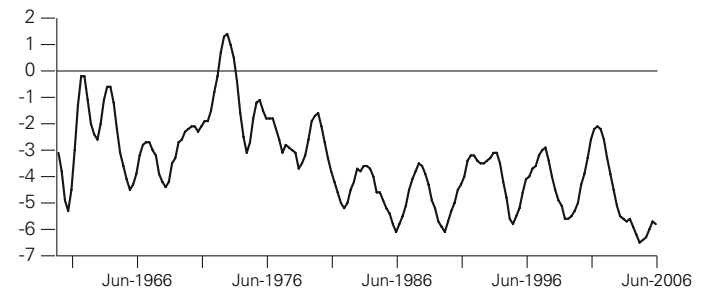
It follows that to stabilise net foreign liabilities at 60% of GDP Australia would need to run a trade surplus of at least 0.6% of GDP. This is because the net income deficit or cost of servicing foreign liabilities is a component of the current account deficit, and the net income deficit is 3.6% of GDP. To get the current account deficit down to 3% requires a trade surplus of 0.6%.

If and when net foreign liabilities rise to 100% of GDP the challenge

will be greater. The net income deficit will then be 6% of GDP. If at that point the economy is growing at 5%, any current account deficit higher than 5% of GDP will increase net foreign liabilities as a share of GDP. But since the net income deficit is already 6% of GDP, it follows that Australia requires a trade surplus of 1% of GDP to prevent liabilities continuing to increase faster than GDP. It also requires a trade surplus to prevent the current account deficit increasing and remaining beyond the critical level of 5% of GDP, which is the average share of net business investment in GDP.

Figure 21

Ratio to GDP (both past year): Current account: Balance Percent



So, the conclusion: if Australia does want to stop net foreign liabilities at 100% of GDP in 2015, it must at that point be able to limit the current account deficit to a permanent maximum of 5% of GDP, and it must do so by running a trade surplus of 1% of GDP. How hard is that?

It is not a big trade surplus, but Australia has not run a consistent trade surplus for over thirty years — and then not for very long. In recent years the trade deficit has been 3% of GDP. The move to a surplus of 1% of GDP means exports have to be increased by 4% of GDP or imports cut by 4% of GDP, or some mix of the two. Looking at it from the savings and investment side, it would mean Australia has to save 4% of GDP more than it does, or invest 4% of GDP less or some mix of the two.

The Henry thesis

Moving into the sixteenth year of Australia's economic expansion, the pattern is again changing. For the first time in several decades Japan, the United States and Germany are expanding, simultaneously and vigorously. And for the first time in human history, the economies of China, India, Eastern Europe, Russia joined the three major highly developed industrial economies in a concerted global upswing. Led by oil, commodity prices rose as the additional demand strained supply. In the three years from the middle of 2003 to the middle of 2006, the US dollar price of metals and mineral commodities exported by Australia more than doubled. Though output was slow to increase, the value of iron ore and coal exports doubled in the three years to April 2006. Export prices had never been so high, and had not risen so quickly since the Korean War wool boom. Australia's terms of trade, which measure export prices against import prices, had not been as strong for over thirty years. With dwelling construction declining after a boom and consumers moderating spending after a decade of rapidly increasing household debt, the big states of NSW and Victoria were growing only slowly. But Queensland, the major coal exporting state, grew at three times the national average. In that state the volume of business investment increased 37% in the year to March 2006, a rate which rivalled the runaway increase in business investment in China over the same period. Business investment in Western Australia, the source of iron ore, natural gas and other major minerals and energy exports, matched that of Queensland.

Pondering the changing direction Treasury Secretary Ken Henry offered a bleak interpretation in a speech at the end of May 2006.⁵⁸ If the improvement in Australia's terms of trade proved enduring, he suggested, labour and capital would move out of manufacturing and services and into mining. Profits would be strong, but wages would fall to a level which permitted full employment in an economy in which much of manufacturing could no longer compete against imports. The current account deficit would remain wide or quite likely increase in response to rising investment in mining and increasing consumer

spending as import prices fell. The mining states would grow vigorously. The others would not.

While Dr Henry's account corresponds to some of the facts of Australia's new economic pattern over the last five years, it does not convincingly explain them. It is hardly plausible, for example, that the slowdown in growth in the major industrial states could be due to resources moving to the mining industry. Much of the slowdown is due to the earlier start and consequently earlier end to the housing construction boom, which accounted for much of the growth in Victoria and New South Wales earlier in the decade. Nor does a shift of resources to mining explain the levelling out of manufacturing exports, which is largely due first to the global recession in the early years of the decade, and then to a higher exchange rate. By the middle of 2006 manufacturing exports were actually picking up, notwithstanding the astonishing rise in commodity prices. Nor can higher resource prices explain the drought, which hit farm exports. They do not explain global fears of terrorism, which have hit overseas tourism. The current account deficit has increased which means the saving/investment gap has increased, but it is not true that this is due to investment in mining. The business investment boom is a phenomenon of 2004 and 2005. Much of the increase in investment earlier in the decade was in residential construction. Even by 2005 investment in mining was still below investment in manufacturing, and both of them added together were very much less than business investment in the rest of the economy. Of the change in investment over 2005 compared to the previous year, mining accounted for one third. Manufacturing and everything else accounted for two thirds of the increase.

The bigger difficulty with Dr Henry's argument is one of orders of magnitude. Mining is very valuable to Australia, but after decades of important discoveries in coal, iron ore, natural gas, copper, lead, zinc and uranium the entire industry accounts for only 5% of GDP. This is little different to its share of national output 30 years ago. It employs just 1% of the workforce — half the share it employed twenty years ago. It is highly profitable, but it is mostly overseas owned, so most of the after-tax profit is sent offshore. This is important because while

total wages are much bigger than total profits in most industries and in the economy overall, the reverse is true in mining. Profits in mining were a little less than four times wages in 2005, and that wasn't an unusual year.

The value of mining output determines profits and taxes and no doubt contributes to increases in wages, but it is the volume of output that contributes to employment and to real GDP growth. Mining production responds only very slowly to higher prices. In the year to April 2006, for example, the value of coal exports was up by 50% on the previous year, but the volume of coal exports was up less than 2%. The value of iron ore exports was up over 40%, but the volume less than 10%.

Higher prices for metals, minerals and energy contribute to Commonwealth taxation, mainly through corporate income tax. The Australian system of imputation tax credits allows residents to deduct from their personal tax the tax paid by companies in which they own shares. For many Australian owned companies such as the banks or retailers, company tax is essentially a withholding tax which is later refunded to individual shareholders. Since the industry is largely foreign owned, however, the Commonwealth is able to keep a higher proportion of the corporate taxation on mining. Expected corporate taxation, including taxation on mining profits, was used in the 2006/07 Commonwealth Budget to fund large personal income tax cuts.

It's true that mining is very much more important as a share of exports than as a share of GDP, but even there it is important to keep a grip on orders of magnitude. Last year the total volume of metals ores and minerals, coal, minerals fuels and refined metals accounted for 30% of export volumes, compared to 36% of export volumes thirty years ago. In terms of values the same total is 38% of exports, a marked increase on recent years through below the 40% reached in 1985. Even though the value of minerals and energy exports has doubled since the end of the last decade, they are still just about matched by the total of manufacturing and service exports.

Mining exports will certainly continue to increase because of the China boom, but by how much? The Australian Bureau of Agricultural and Resource Economics estimates that if China continues to grow at

8% a year, the volume of Australian exports of minerals and metals to China could grow at 6% to 7% a year. This is handsome rate of increase, but not very different to the long term rate of growth of these exports, or to the annual average growth rate of Australian export volumes as a whole in the years between 1983 and 2000.

Dr Henry's speech evoked a 1976 proposition by the Australian National University's Professor Bob Gregory.⁵⁹ A speech by Treasury's David Gruen some months before Dr Henry's speech has more directly drawn on what became known as the Gregory Thesis. The basic argument of the Gregory thesis or the more widely known Dutch Disease is that a big improvement in mineral export prices would increase national income and spending. Prices would rise in those parts of the economy not subject to international competition, drawing labour and capital to them and away from manufacturing (and farming). Even if the nominal exchange rate is fixed, the higher price level acts as an effective appreciation of the real exchange rate and helps to crowd out manufacturing and service exports. If the exchange rate is free to move, it will appreciate in response to the improvement in commodity prices.

It is not at all clear, however, that the Australian exchange rate is appreciating along with the terms of trade. The real trade weighted exchange rate certainly appreciated by nearly 30% in the two years to March 2004, but most of that was due to the decline of the US dollar over the same period and the correction of the Australian dollar from its all time low of under USD0.50 at the beginning of the decade. The commodity price boom did not get underway for Australia until the middle of 2003. In the two years to the middle of 2006 Australian commodity prices measured in SDRs (an IMF currency basket) nearly doubled. But in March 2006, after two years of dramatically increasing commodity prices, the real exchange rate was actually a little weaker than it had been two years before. The same pattern is true of the nominal trade weighted exchange rate, which peaked in February 2004. Two and half years later it was somewhat lower, despite the increase in commodity prices. Not surprisingly the same pattern is also true of the Australian dollar exchange rate against the US dollar.

It was USD0.79 in February 2004, as the commodity price boom got underway. In June 2006 it was USD0.74.

The exchange rate link is no longer firm. Nor is there a strong and direct link between rising export prices, and rising national income. This is because mining is a relatively small share of GDP, and also because the volume of output is responding only slowly to the increase in commodity prices. In the three years to 2005 the value of exports rose markedly less than value of output (both in nominal dollars) and contributed less than one sixth of the gain to the dollar value of output. Exports of metals, metal ores and minerals, coal and other mineral fuels, grew faster than GDP over the three years, but even so by 2005 they had only returned to the same share on nominal GDP (8%) they had in 2001. The entire increase in the value of exports of those products in the three years accounted for only one eighth of the increase in nominal GDP over the period. One could rightly argue that but for the price increases, the contribution would have been less, but that is not the point. Even with very large increases in commodity prices over the period, and even looking only at that sector, the contribution to the economy as a whole was not spectacular.

If there is a Gregory effect it is evidently mitigated by other influences. Capital flows are more important the trade flows across foreign exchanges. In 1976 the current account deficit was a little under 2% of GDP. In 2005 it was close to 6% of GDP. The corresponding net capital inflow had increased to match, and with increasing Australian investment offshore gross capital flows had increased even more. These capital flows are more influenced by interest rate differences than by commodity prices.

Chapter 7

Conclusion

Fifteen years of slowly accumulating economic success have changed Australia, often in unobtrusive ways. In 2005 Australians were two and half times richer than they had been in 1991.⁶⁰ Real wealth increased much more in the last fifteen years than in the thirty previous years. Incomes have substantially increased, and a higher proportion of Australians have paying jobs than at any time in the last quarter century. Australia is much more closely integrated into the global economy than it had been at the beginning of the nineteen nineties. Foreign investment by Australian businesses is now often bigger than foreign investment in Australian business. Since 1991 the share of exports in GDP has increased by 5%.

The most remarkable change, however, is an elusive but discernible increase in Australians confidence in their future. Australians now retiring from the workforce can still remember the five recessions in the seventeen years between 1975 and 1991, downturns which shattered confidence in the rightness of Australia's economic institutions. Their younger colleagues, by contrast, may not have experienced an economic downturn in their working lives. The evident confidence is all the more

remarkable because it coincides with changes which twenty years ago might have threatened their assurance. Europe and North America are bothered by the growing weight of China in the global economy, for example, but Australia may well be the first wealthy country to conclude a free trade agreement with the new Asian giant. At the beginning of the upswing market disciplines, deregulation and 'economic rationalism' were widely questioned. Fifteen years on, there is no call to go back.

The greater confidence Australians have in their economic arrangements is timely, because the next fifteen years will be quite as challenging as the last fifteen. It will be difficult to sustain the growth of productivity as the impact of past reforms fades. Australia's much higher foreign indebtedness will weigh more heavily on coming generations. Industry must continuously change to succeed in the changing pattern of production and consumption introduced by the rise of China to regional economic leadership. Australians will have to fight a return of the self satisfaction which made the transition from the nineteen sixties to the nineteen seventies so dislocating. The long run of success, however, demonstrates that an open Australia need not be frightened of the challenge to compete and succeed in the global economy.

Notes

- ¹ See for example Claudio Borio and Philip Lowe, *Asset prices, financial and monetary stability: exploring the nexus*. BIS working papers no. 114. Basel, Bank for International Settlements, 2002. Lowe returned to the RBA to become an Assistant Governor. Also Anthony Richards and Tim Robinson, eds., *Asset prices and monetary policy: proceedings of a conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli on 18–19 August 2003*. Sydney, Reserve Bank of Australia, 2003.
- ² The Conference Board and Gronigen Growth and Development Centre, Total Economy Database, May 2006. See table for GDP per capita in 1990 US\$ converted at Geary Khamis purchasing power parities.
- ³ Using ABS national accounts data. Numbers based on purchasing power parity used elsewhere give a slightly different result.
- ⁴ Ian McLean, Australian economic growth in historical perspective. *Economic Record* vol. 80 no. 250 2004
- ⁵ See *National Intelligence Council, Mapping the global future: report of the National Intelligence Council's 2020 Project*. Washington, National Intelligence Council, 2004.
- ⁶ Compared using purchasing power parities see Statement 4 in Australian Government, *Budget strategy and outlook 2006–07*. 2006–07 Budget paper no. 1. Canberra, Commonwealth of Australia, 2006.
- ⁷ George Burnett Barton, *History of New South Wales from the records*. Sydney,

- Govt. Printer, 1889. p xlvi.
- ⁸ McLean, Australian economic growth in historical perspective. p 341.
- ⁹ Over the period the economy grew at an annual average rate of just under 10%, and the rate of population growth was only a little less. Graeme Donald Snooks, *A new portrait of the Australian economy* (paper presented at the Sixth RSSS Economic History Colloquium, Australian National University, Canberra, 1993) table 1.
- ¹⁰ McLean, Australian economic growth in historical perspective. p332 panel B.
- ¹¹ See John Edwards, *Curtin's gift: reinterpreting Australia's greatest prime minister*. Sydney, Allen & Unwin, 2005 especially Chapter 7.
- ¹² Carl Boris Schedvin, *In reserve: central banking in Australia, 1945–75*. Sydney, Allen & Unwin, 1992. p 457.
- ¹³ Through to the nineteen sixties most Australian economists had supported tariff protection for Australian industry, largely on the argument that all countries protected infant manufacturing until it reached sufficient scale to compete internationally. The war with Japan convinced Australians they needed more people and more heavy industry to defend the country, and neither would be possible without protection against imports. By the mid nineteen sixties, however, rising protection was a hindrance. It insulated manufacturing industry from offshore competition, permitting a higher rate of growth of wages. The evidence is unclear, but it is quite likely that while high tariffs initially assisted growth they later hindered it. They encouraged domestic manufacturing, which at first increased growth and productivity as output expanded to the size of the Australian market and drew labour and capital away from industries with lower productivity. Once the Australian market demand was met, however, growth in the highly protected industries would have to slow to the rate of growth of the economy as a whole since the industries were often not internationally competitive. Meanwhile, the efficient export industries were saddled with the costs of inefficient import competing industries.
- ¹⁴ This section draws on Schedvin, *In reserve: central banking in Australia, 1945–75*, Chapter 13.
- ¹⁵ Using the common definition of at least two successive quarters of output contraction.
- ¹⁶ Out of power, Fraser remained a hostile critic of the float of the currency, tariff cuts and other economic reforms through the eighties.

- ¹⁷ See John Edwards, *Keating: the inside story*. Melbourne, Viking, 1996.
- ¹⁸ Richard E Caves and Lawrence B Krause, (eds) *The Australian economy: a view from the North*. Washington, Brookings Institution, 1984.
- ¹⁹ In a talk at the Lowy Institute, March 1, 2006.
- ²⁰ Fifteen years later they were 150% of GDP.
- ²¹ Wages growth reached 25% in 1974/75 and 16% in 1981/82.
- ²² Edwards, *Keating: the inside story*, Chapter 11.
- ²³ Through the eighties nominal rates were higher than they had ever been in Australian history, notwithstanding the common view that monetary policy took a back seat to wages policy.
- ²⁴ Home mortgage lending increased 23% in the year to May 1989. Business lending increased even faster, rising 32% in the year to June 1988.
- ²⁵ Reported SMH, February 24, 2006.
- ²⁶ SMH, February 9, 2005.
- ²⁷ Because of the currency depreciation which followed the 1983 float, import prices rose over 40% between 1984/85 and 1987/88. Import prices then began to moderate with the gradual recovery in the Australian dollar from its low just under USD0.60 in the middle of 1986.
- ²⁸ Excluding the housing group consumer price inflation peaked at 9.8% in 1986/87 and was down to 6.3% in 1988/89. The widest measure of domestic prices — four quarter percentage changes in the GDP deflator — peaked at the end of 1988 and then tumbled quarter after quarter. The CPI excluding volatile items was falling in December 1987 (earliest data point). The Treasury underlying rate fell pretty much in a straight line from mid 1986. The GDP IPD in year to percentage terms was falling from the end of 1988, barely nine months after the tightening commenced.
- ²⁹ David Gruen and Sona Shrestha, (eds) *The Australian economy in the 1990s: proceedings of a conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli on 24–25 July 2000*. Sydney, Reserve Bank of Australia, 2000 p32–72, Also discussion note by John Edwards p118–123. Gruen and Stevens note that the Reserve Bank shared the treasurer's concern over the current account deficit. They point out that in its 1988 *Annual Report*, the Bank argued (p8): 'Australia's external imbalance and high level of external debt were major issues for general economic policy throughout 1987/88. It was of some concern, therefore, that strong domestic demand boosted

imports over the year. Also, in the second half of the year, earnings and prices appeared to be growing uncomfortably quickly, threatening the downward course of inflation and the improving trend in the balance of payments. The tightening of monetary policy in the second half of the year was in response to those developments’.

³⁰ Edwards, *Keating: the inside story*, Chapters 11–13.

³¹ It was certainly not predicted by the prime minister, or the Treasurer. For its part the Treasury insisted there would not be a recession, and was reluctant to recognise it even when it arrived. The secretary of the Treasury opposed rate cuts by the Reserve Bank, even after the slide began.

³² Both numbers using treasury underlying rate.

³³ Import prices and then the interest rate increases themselves were the major components of higher prices. Excluding interest rates and volatile items inflation was 2.4% in 1993/94, and 3.1% in 1994/95. The trimmed and weighted means troughed in 1993/94 at 1.7%, and rose to 2.5% in 1995/96. The headline measure, which took in import prices and interest rates was much more volatile. It reached a low of 0.3% in the year to December 1992, and a high of 5.1% in the year to September 1995.

³⁴ For the history see Glenn Stevens, Six years of inflation targeting. *Reserve Bank of Australia Bulletin* (May) 1999.

³⁵ With Australia’s resistance to the Asian crisis came a change in the understanding of what was happening. Visiting Australia, US economist Paul Krugman described it as the ‘miracle economy’. In Singapore Australians were confidently told ‘you will be next’. The domino didn’t fall.

³⁶ Bart van Ark, *The world’s productivity performance: how do countries compare?* (paper presented at the Productivity Perspectives 2006 Conference, Canberra, 23 March 2006).

³⁷ Its true that productivity growth is closer to the growth of income per head, because over the long run increasing hours worked usually requires more workers and more people to share the income produced. But over the 15 year upswing the growth of income per head substantially exceeded the growth of output per hour worked over the whole economy because unemployment fell and the proportion of the population either with jobs or looking for jobs increased. These trends more than offset a decline in average hours worked, which was largely due to part time work increasing substantially

faster than full time work. As participation levels off and begins to decline and unemployment stabilises, these sources of increase in living standards will no longer be available.

There is another way the growth of Australian living standards may be reduced if GDP growth slows, even if productivity growth stays the same. Foreign liabilities have reached 60% of GDP, and will likely continue to increase faster than GDP for decades to come. The servicing cost is independent of the growth of the Australian economy. If GDP growth slows the stream of interest and dividends on foreign liabilities will claim a higher share of GDP, reducing Australian domestic income.

³⁸ Though the exchange rate was free to respond to market movements, it has been more stable since the float than it was in the last fifteen years of the fixed rate. When the fixed rate was changed, it was usually a big change. In any case, it could be fixed against only one currency and varied against all the others.

³⁹ The share of goods exports going to East Asia and Japan peaked at 61% in 1995, fell with the Asian crisis, and by 2005 was returning to its former peak as exports to China increased.

⁴⁰ The March quarter of 2006 was the first set of numbers for several years which were free of the accounting turmoil caused by the switch in News Corporation from an Adelaide to a Delaware listing.

⁴¹ In 1994 71.5% of students were at government schools; in 2004 67.5%, ABS 4102.0.

⁴² George Megalogenis, After the house party ends. *The Weekend Australian*, 18–19 February 2006. p 20.

⁴³ Australian Bureau of Statistics, *Motor vehicle census, Australia*. ABS Cat. no. 9309.0, March. Canberra, ABS, 2005.

⁴⁴ Yongping Li, *Impacts of demographic and economic changes on measured income inequality* (paper presented at the Australian Social Policy Conference, 2005).

⁴⁵ Ann Harding, *Recent trends in income inequality in Australia* (paper presented at the Conference on Sustaining Prosperity: New Reform Opportunities for Australia, 31 March 2005).

⁴⁶ Australian Bureau of Statistics, *Household income and income distribution, Australia 2002–2003*. ABS Cat. no. 6523.0, December. Canberra, ABS, 2004.

⁴⁷ Australian Bureau of Statistics, New experimental estimates of the

- distribution of Australian household wealth, in *Australian Economic Indicators, ABS Cat. no. 1350.0, October*. Canberra, ABS, 2002.
- ⁴⁸ On ABS national accounts numbers. The Commonwealth Treasury uses a somewhat higher number
- ⁴⁹ The federal budget deficit was 1.9% in the last year of the Whitlam government, and 1.7% in the last year of the Fraser government. Australian Government, *Budget strategy and outlook*. 2005–06 Budget paper no. 1. Canberra, Commonwealth of Australia, 2005 Statement 13 Table 1.
- ⁵⁰ PM program transcript June 22 2006.
- ⁵¹ For a useful discussion see Christopher Kent and David Norman, (eds) *The changing nature of the business cycle: proceedings of a conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli on 11–12 July 2005*. Sydney, Reserve Bank of Australia, 2005, especially the introduction by the editors.
- ⁵² See Robert N McCauley, Capital flows in East Asia since the 1997 crisis. *BIS Quarterly Review* (June) 2003, and Michael P Dooley, David Folkerts-Landau and Peter Garber, An essay on the revived Bretton Woods system. *NBER Working Paper* No. 9971, 2003.
- ⁵³ Symbiosis is a situation in which two dissimilar organisms live together. There are many types of symbiosis, including mutualism (in which both organisms benefit), commensalisms (in which one organism benefits and the other is not affected), or parasitism (in which one organism benefits at the other organism's expense).
- ⁵⁴ Although East Asia has built huge reserves and will likely see continued trade surpluses in most economies, the drivers of growth have also to some extent changed in ways that suggest they will over time move closer to the US and Australian models. In particular financial liberalisation after the Asian crisis has seen stronger household demand trends in Korea and Thailand, while for different reasons domestic demand has also been a bigger force in China and Japan. Over time, the rich economies of East Asia will more closely resemble those of the US and Australia in the role of household sector, of the financial sector, and of services industries generally.
- ⁵⁵ Angus Maddison *The world economy: a millennial perspective*. Paris, Organisation for Economic Co-operation and Development, 2001.
- ⁵⁶ Ian Macfarlane, *Statement to the House Economics Committee*, 17 February 2006.
- ⁵⁷ Anthony J Makin, Feasible limits for external deficits and debt. *Global Economy Journal* Vol. 5 No.1 2005.
- ⁵⁸ Ken Henry, *The fiscal and economic outlook*: address by Dr Ken Henry to the Australian Business Economists, Tuesday 17 May 2005.
- ⁵⁹ Robert G Gregory, Some implications of the growth of the minerals sector. *Australian Journal of Agricultural Economics* Vol. 20, 1976.
- ⁶⁰ Australian Treasury, Australian net private wealth. *Economic roundup* (Summer) 2000. Real private sector wealth per person increased from \$120,814 in 2003/04 dollars in 1991 to \$298,601 in 2005, a gain of 150%. By contrast the gain over the previous 15 years was 50% or over the previous 30 years 100%.

Bibliography

- Australian Bureau of Statistics. *Household income and income distribution, Australia 2002–2003*. ABS Cat. no. 6523.0 December. Canberra, ABS, 2004.
- . *Motor vehicle census, Australia*. ABS Cat. no. 9309.0 March. Canberra, ABS, 2005.
- . New experimental estimates of the distribution of Australian household wealth, in *Australian Economic Indicators, ABS Cat. no. 1350.0 October*. Canberra, ABS, 2002.
- Australian Government. *Budget strategy and outlook*. 2005–06 Budget paper no. 1. Canberra, Commonwealth of Australia, 2005.
- . *Budget strategy and outlook 2006–07*. 2006–07 Budget paper no. 1. Canberra, Commonwealth of Australia, 2006.
- Australian Treasury. Australian net private wealth. *Economic roundup* (Summer) 2000.
- Barton, George Burnett. *History of New South Wales from the records*. Sydney, Govt Printer, 1889.
- Borio, Claudio and Philip Lowe. *Asset prices, financial and monetary stability: exploring the nexus*. BIS working papers no. 114. Basel, Bank for International Settlements, 2002.
- Caves, Richard E and Lawrence B Krause, (eds) *The Australian economy: a view from the North*. Washington, Brookings Institution, 1984.
- Dooley, Michael P, David Folkerts-Landau and Peter Garber. An essay on the

- revived Bretton Woods system. *NBER Working Paper* no. 9971 2003.
- Edwards, John. *Curtin's gift: reinterpreting Australia's greatest prime minister*. Sydney, Allen & Unwin, 2005.
- . *Keating: the inside story*. Melbourne, Viking, 1996.
- Gregory, Robert G. Some implications of the growth of the minerals sector. *Australian Journal of Agricultural Economics* Vol. 20 1976, pp 71–91.
- Gruen, David and Sona Shrestha, (eds) *The Australian economy in the 1990s: proceedings of a conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli on 24–25 July 2000*. Sydney, Reserve Bank of Australia, 2000.
- Harding, Ann. *Recent trends in income inequality in Australia*. Paper presented at the Conference on Sustaining Prosperity: New Reform Opportunities for Australia, 31 March 2005.
- Henry, Ken. *The fiscal and economic outlook: address by Dr Ken Henry to the Australian Business Economists, Tuesday 17 May 2005*.
- Kent, Christopher and David Norman, (eds) *The changing nature of the business cycle: proceedings of a conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli on 11–12 July 2005*. Sydney, Reserve Bank of Australia, 2005.
- Li, Yongping. *Impacts of demographic and economic changes on measured income inequality*. Paper presented at the Australian Social Policy Conference, 2005.
- Macfarlane, Ian. *Statement to the House Economics Committee, 17 February 2006*.
- Maddison, Angus. *The world economy: a millennial perspective*. Paris, Organisation for Economic Co-operation and Development, 2001.
- Makin, Anthony J. Feasible limits for external deficits and debt. *Global Economy Journal* Vol. 5 No.1 2005, pp 1–14.
- McCauley, Robert N. Capital flows in East Asia since the 1997 crisis. *BIS Quarterly Review* (June) 2003, pp 41–56.
- McLean, Ian. Australian economic growth in historical perspective. *Economic Record* Vol. 80 No. 250 2004, pp 330–345.
- Megalogenis, George. After the house party ends. *The Weekend Australian*, 18–19 February 2006, p 20.
- National Intelligence Council. *Mapping the global future: report of the National Intelligence Council's 2020 Project*. Washington, National Intelligence Council, 2004.
- Richards, Anthony and Tim Robinson, (eds) *Asset prices and monetary policy: proceedings of a conference held at the H.C. Coombs Centre for Financial Studies, Kirribilli on 18–19 August 2003*. Sydney, Reserve Bank of Australia, 2003.
- Schedvin, Carl Boris. *In reserve: central banking in Australia, 1945–75*. Sydney, Allen & Unwin, 1992.
- Snooks, Graeme Donald. *A new portrait of the Australian economy*. Paper presented at the Sixth RSSS Economic History Colloquium, Australian National University, Canberra, 1993.
- Stevens, Glen. Six years of inflation targeting. *Reserve Bank of Australia Bulletin* (May) 1999, pp 46–61.
- van Ark, Bart. *The world's productivity performance: how do countries compare?* Paper presented at the Productivity Perspectives 2006 Conference, Canberra, 23 March 2006.

LOWY INSTITUTE
FOR INTERNATIONAL POLICY

Other Lowy Institute Papers

- 01 Mark P Thirlwell, *India: the next economic giant* (2004)
- 02 Milton Osborne, *River at risk: the Mekong and the water politics of Southeast Asia* (2004)
- 03 Alan Dupont, *Unsheathing the samurai sword: Japan's changing security policy* (2004)
- 04 Michael Fullilove & Chloë Flutter, *Diaspora: the world wide web of Australians* (2004)
- 05 Anthony Bubalo & Greg Fealy, *Joining the caravan? The Middle East, Islamism and Indonesia* (2005)
- 06 Malcolm Cook & Craig Meer, *Balancing act: Taiwan's cross-strait challenge* (2005)
- 07 Mark Thirlwell, *The new terms of trade* (2005)
- 08 Peter Edwards, *Permanent friends? Historical reflections on the Australian-American alliance* (2005)
- 09 Ben Scott, *Re-imagining PNG: culture, democracy and Australia's role* (2005)
- 10 Simon Chesterman, *Shared secrets: intelligence and collective security* (2006)
- 11 Milton Osborne, *The paramount power: China and the countries of Southeast Asia* (2006)
- 12 Alan Dupont & Graeme Pearman, *Heating up the planet: climate change and security* (2006)
- 13 Rod McGibbon, *Pitfalls of Papua* (2006)

To order copies of these Papers contact:
The Lowy Institute for International Policy
www.lowyinstitute.org
31 Bligh Street Sydney 2000
New South Wales Australia
Tel: + 61 2 8238 9000

