

Economic *Roundup*

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Towards a tax and transfer system of human scale

Dr Ken Henry¹

National Press Club, Canberra, 12 November 2008

1 Chair – Australia’s Future Tax System Review Panel and Secretary to the Treasury. I would like to thank several members of the Secretariat to the Australia’s Future Tax System Review for assistance in the preparation of this address, including Rob Heferen, John Lonsdale, David Hazlehurst and Jason McDonald. I would also like to take this opportunity to thank all of the members of the Secretariat for their hard work and perseverance in a difficult year.

1. My working holiday

As people all around the world quickly learned – such is the reach of the electronic media these days – I spent July with my wife, Naomi, in the Epping Forest Scientific National Park in central Queensland, helping look after what may be the last 115 northern hairy nosed wombats left on the planet.

The care of our native wildlife is one of my passions. Another is tax policy. That, too, has occupied a fair bit of my time this year as we have been undertaking one of the most fundamental tax reviews ever attempted in this country.

Spending time on one's passions would normally be considered a good thing. In some respects, then, this has been a good year.

But of course in other respects it's been a dreadful year, especially for the global financial system, which has also consumed a lot of my time.

I don't wish, today, to provide a comprehensive accounting of the reasons for the global financial crisis. But I do want to identify three dimensions of it that are highly relevant to some other things that I want to talk about.

The first is the role played by complexity. The array of financial instruments deployed within the global financial system has become so complex that it defies understanding. It is not just that nobody understands the whole system; that's hardly surprising. What is worrying, though, is the very large number of senior finance sector executives who don't appear to understand the consequences of even their own decisions.

The second dimension is closely related. It has to do with risk and uncertainty. Complex financial instruments have been traded globally in ways that were thought to provide a more comfortable sharing of risk. What they've shared instead is fear. People now not only don't know who they can trust, they don't even know who they need to be able to trust.

And the third dimension I want to identify is the role played by regulation and, more broadly, governance systems. For decades to come, policy makers are going to be asking why those with sufficient authority didn't stand up and declare, in simple language, that this just doesn't make sense.

Today, I will be talking about tax. In doing so, I'll be reflecting on those themes of complexity, risk and governance that lie at the core of the global financial crisis.

But first, back to Epping Forest. While there I also spent some time working over drafts of the Treasury's tax and transfer architecture paper released in August.

Having spent a lot of my professional career in the tax policy business, I'm acutely aware of the extraordinary complexity in our system, especially when tax is combined with transfer payments. I can probably take responsibility for some of that complexity. Even so, on reading the Treasury paper, it was a revelation to me that Australia's system now has no fewer than 125 taxes. It turns out that there are more taxes in Australia than there are northern hairy nosed wombats. Clearly taxes are not an endangered species. The Treasury paper also detailed how there are approximately 5,700 pages of income tax legislation, and that almost three-quarters of individual Australian taxpayers apparently need a registered tax agent to prepare their tax return.

On the first night of our trip home from Epping Forest, Naomi and I stopped at Jericho, a small town to the south-west of the park. While waiting for dinner – it was Thursday pizza night at the pub – we sat in the bar for a drink. A local businessman, let's call him Jim, came up to have a chat.

'So, what do you do for a living?' he asked. I was going to say 'I'm a wildlife protection officer', which was sort-of true. But I said: 'I work for government, in Canberra.' Perhaps I sounded a bit defensive – I didn't mean to – because he responded: 'That's alright mate, somebody has to.' And then he added 'Just so long as you don't have anything to do with tax.'

Well, discretion is part of my job description. Even so, we ended up having a long and – I think – insightful discussion about the complexities of the tax system that ordinary Australians have to deal with.

One of the points of discussion sticks in my memory. Jim, an experienced businessman, had, at one point, owned a number of cattle stations. In the course of numerous discussions with a couple of tax auditors following a dispute, eventually settled in his favour, he learned more than he had ever wanted to know about our tax system. 'Do you know', he said, 'that something as ordinary as fencing wire can be treated several different ways for tax purposes?' He explained that it might be immediately expensed. Alternatively, it might have to be depreciated. Then again, perhaps it should be treated as trading stock. Why was it treated one way under income tax but another way under the GST? 'Isn't fencing wire just fencing wire?' he asked.

The views of practical people like Jim can be too easily dismissed by policy experts. After all, 'common sense' can often mask vested interest and produce unintended consequences.

Yet it's been my experience that the bar room conversations of practical people can sometimes contain more wisdom than high-brow policy seminars. This proved to be such an occasion, with Jim going on to explain his preference for being taxed on the

difference between his cash incoming and outgoings. He thought that this would make a lot more sense than the complex and uncertain system currently in place. As it happens, there's a lot of academic discourse on the merits of a 'cash flow' tax as one way to simplify the tax system – not that I mentioned this to Jim – but I had never seen it argued so well, nor with such understanding. And so without endorsing it, this proposal is clearly one of a number the Panel will need to consider.

2. The personal cost of complexity

Even though our discussion was long, I reflected later that Jim had just scratched the surface of the complexity of our tax-transfer system.

The conversation got me thinking about how seldom policy people approach issues from the perspectives of everyday citizens. And on the long drive south from Jericho, I pondered how the tax-transfer system, in its entirety, might look to someone like Jim.

At some point on that long drive home, it occurred to me that our tax-transfer system, designed for humans, now vastly exceeds human scale.

In establishing his business, for instance, Jim would have needed to consider critically important tax factors in deciding whether to operate as a sole trader or a partnership, a fixed or non-fixed trust, or a company. Each is taxed in a different way. To get the best tax outcome he may well have been advised to use more than one legal entity. Assuming he needed external finance, the differing tax treatments of debt and equity would also have come into play. He would have had to think about superannuation and how his business might provide for his retirement.

Depending on the type and nature of the business, Jim would have faced other obligations. For example, if using a company, he would have needed to keep various additional accounts to comply with dividend imputation arrangements. He would have needed also to avoid falling foul of rules about non-commercial losses and distributions to associated entities. He might have become acquainted with the latter by perusing the 190 page manual dedicated solely to this topic.

And, although Jim's children were grown up and had long since left home, I thought about the tax implications for them of starting a family. Did they know, for instance, that if mum returns to work after having children, Family Tax Benefits Part A and B might be reduced, though the Government covers some of the costs of childcare? Or that the Government provides two separate child care payments – each with different entitlement arrangements and payment rates? Or, further, that the Family Assistance Office must be notified of any changes in family income, which determines entitlement to the Family Tax Benefit and Child Care Benefit, and can indirectly affect Child Care Tax Rebate?

I thought also about how, as Jim and his wife near retirement, they will have significant decisions to make about how to invest their savings. Age Pension eligibility and income tax liability each year depends on the form assets take, so they will need sound advice on what investments they should choose. Depending on whether their savings are invested in their own home, superannuation, or certain types of annuities, they may or may not be able to access the Age Pension and the other concessions and supplementary payments available to pensioners.

By this stage I was thinking how much simpler life had been in the donga back in Epping Forest.

And in reflecting on that disjunction, a proposition formed in my mind: perhaps it's fair to expect Jim to have to hire a tax expert while establishing a business, but surely not when engaging in the normal activities of family life. Australians should not need to consult an accountant to decide whether to return to work or put their kids in childcare. Their retirement planning, too, should be a lot easier.

As well as complexity there's another issue related to tax that confronts people like Jim: uncertainty – or more broadly, risk. As Jim said, 'How is someone like me meant to know what to do with fencing wire in my tax return? And if I get it wrong, I could be in a lot of trouble.'

Dealing with risk also takes time and resources. Like complexity, risk is costly.

One manifestation of this cost is the use made of tax agents. Fundamentally, tax agents are engaged by ordinary taxpayers to manage complexity and risk.

In the 2005–06 income year, around 11½ million Australians lodged tax returns. Of these, 73 per cent – some 8½ million returns – were submitted by tax agents. This reliance on professional help is much greater than in other countries: in New Zealand, only 30 per cent of returns are submitted by tax agents. The cost of managing the tax affairs of Australians is significant, and it's growing. We should be reducing that cost as a matter of urgency.

3. The social cost of complexity

Jim was well aware of some of the direct costs to him of complexity in the tax-transfer system. But there are further indirect complexities that affect him as well. These are hidden in the administration and business compliance costs of the tax-transfer system, which find their way into the prices of everything he buys.

Complexity has macro consequences too. These fall into two broad camps. First, an excessive level of complexity wastes resources. It makes it difficult for taxpayers and transfer payment recipients to make optimal decisions. It diverts resources from more

valuable uses; many high-achieving tax agents could be school teachers, for example. It wastes time that people could spend with their family, volunteering in their community, relaxing with friends and – of course – caring for northern hairy nosed wombats.

Second, complexity undermines social goals for the tax-transfer system. It provides opportunities for sharp planning practices that undermine the fairness of the system. But it may do more harm than that. Undue complexity serves to alienate Australians from the tax and transfer system, undermining the trust the system needs to operate successfully. Remember how Jim hoped I wasn't a tax official! A simpler tax system will be a more trusted system that generates greater public support and reduces avoidance.

This system complexity acts like an additional tax, but the worst kind of tax: a tax that provides no revenue, is indiscriminate in whom it affects and serves little social value. So why do we have it?

Ideally, we'd like to reduce this complexity, although it's naive to think that we can remove all of it. Part of the complexity in the tax system reflects complexity in the real world, which is becoming more complicated by the day as globalisation and individual opportunity increase. Complexity is not an intended outcome of greater economic freedom, but it may be an unavoidable consequence. And a complex world constrains how simple a nation's tax system can be.

On the other hand, some of the complexity in real life reflects the efforts of individuals and businesses attempting to escape complexity in the tax system. If governments respond by imposing additional tax complexity, a vicious circle is created.

So what do we do about it?

I think there are two things.

First, governments need to sit back regularly and think about the transaction costs of the system as a whole, with an eye to reforms that can not only simplify the tax system but meet other economic, social and environmental objectives.

And second, we should look at the tax and transfer system from the perspectives of the citizens for whom it has been designed.

I'll return to these points in a moment.

4. The optimal taxation of capital

I've noted that there are dimensions of complexity that are of macro significance. One key example where the Panel is still developing its views is the taxation of income from savings and investment. Capital income taxation affects individuals' decisions to save or defer consumption. And, for workers who save part of their earnings, taxing savings also reduces the return from working. Capital income tax settings also affect our ability to tax other income, notably labour income. They affect resource allocation within the economy, investment levels, risk taking, innovation and entrepreneurialism – all of which drive productivity and long-run growth.

Let's drill down for a moment to the implications of taxing investments.

Ultimately, all of us, not just shareholders, may pay the cost of company and other capital income taxes. In an open economy like Australia's, taxes on investment income can increase the cost of capital and reduce investment, which in turn can reduce the level of capital per worker, affecting labour productivity and, eventually, real wages.

Of course, capital is not perfectly mobile and there are other complications to factor in. The Review Panel needs to understand better the economic incidence and distributional effects of capital taxes. Nevertheless, we do expect that, in an open economy like ours, an increase in taxes on mobile capital will reduce investment and national income in aggregate, affecting wages and jobs.

The Treasury's architecture paper pointed to the fact that company tax rates have been declining worldwide, and that Australia has a relatively high reliance on capital income taxes. Not surprisingly, some of the commentary following the architecture paper's release suggested the Treasury was pointing to the need to cut the statutory company tax rate.

However, the policy options are richer than simply cutting the company tax rate.

The strength in company tax revenues in recent years reflects, at least in part, cyclical factors and the resources boom. There is a good case, relative to other tax bases, to tax super-normal profits – what economists call 'economic rents'. To date, the company income tax has been our primary means of doing so. If it is to continue to play that role, then the case for reducing the company tax rate is weakened.

If we were to adjust business tax arrangements to try to attract a greater share of global investment, we would ensure that firms have minimal incentive or opportunity artificially to shift profits offshore; we would want to recognise the impact of tax on the global location of mobile or marginal investments; and we would want to continue to tax economic rents, as these are, by definition, immobile and unresponsive to tax.

These textbook principles are relatively uncontroversial in academic discourse, but they are hard to implement in practice, mainly because even revenue-neutral changes benefit some while imposing costs on others, with attendant political pain. Australia, like most countries, has a way to go before we achieve perfection.

5. What are the next steps?

Progressing tax system design isn't easy. But I'm optimistic. Certainly, it will be more feasible if we have a sensible discourse. Recognising that, the Review Panel has committed to a few ground rules: first, we must remain open to new ideas; second, the review is both too complex and too important to rush; and third, we cannot make good progress without engaging the community.

The steps in the review process are these. In August, as I have noted, the Treasury released its architecture paper, to seed debate. Next month, the Review Panel will release a consultation paper. That paper will summarise what we've heard so far from the community, identify some key issues, draw out the choices that emerge from our analysis of the issues, and seek views on a range of more specific questions. Following the release of the consultation paper, there will be a second, longer consultation period of perhaps six months. During that time, there will be many opportunities for engagement – public meetings, round table discussions, and a tax policy conference in June.

We're going to see a first in Australia: ordinary Australians like Jim will be given the opportunity to put their commonsense view directly to people like me – and not just at the pub. The tax system is for the benefit of every Australian and it follows that every Australian should be able to debate its design.

In the second half of next year we will be writing up our report, due to the Government by December 2009.

6. Why should people be interested?

If Jim were here today, he would know that I agree with him that our tax-transfer system is simply too complex for users. That complexity is costly. We don't know how costly, but we have good reason to think that what you see is only a small part of it. System complexity also exposes people to risk. And, again, in most cases that level of risk should be regarded as unacceptable.

Back in Jericho, Jim tested me on a few questions that had been bugging him. If Jim were here today, I would want to test him on a few questions that have been bugging me.

First, do you want so many taxes and transfers? Is the added complexity of so many instruments trying to do the same thing worth whatever the benefits may be?

Second, is there a better mix of taxes and transfers that would improve resource allocation?

And third, have we got the right balance of government tax and transfers over a person's lifetime? We don't really know the impact of the tax-transfer system over a person's life-span despite its obvious influence on decisions to work, save, have children, invest and retire. We should know these things.

The Review Panel has been tasked with a 'root and branch' review, not just the 'pruning and shaping', of the tax and transfer system. Its deliberations involve a comprehensive examination of the structure of the system for the long term and its effects on individuals, businesses and Australia's macroeconomic performance.

We will be looking for ideas that address system complexity and deliver superior economic, social and environmental outcomes.

Our goal is to identify enduring reform directions for the tax and transfer system; to craft an architecture that might support multiple reform packages over many years.

If we are going to find that architecture, and give it human scale, we are going to have to be a lot more imaginative, a lot more creative, and we are going to have to get much better at seeing things from the perspectives of people like Jim.

Thank you.

The smarter use of data

David Gruen and Anthony Goldbloom¹

Plenary Address to the NatStats08 Conference Melbourne 20 November 2008

1 David Gruen is the Executive Director, Macroeconomic Group, the Australian Treasury. Anthony Goldbloom is from Macroeconomic Group, the Australian Treasury. This article has benefited from comments provided by Jim Thomson, Jason Allford and David Stephan and background information provided by Treasury's Social Policy Division, Tax Analysis Division, Australia's Future Tax System Review and the Standard Business Reporting Program.

Introduction

I am very pleased to be part of the first ever NatStats conference dealing with a most worthy, though often overlooked, subject.

Much of what is done in public policy is based on statistical insights, making our nation's statistics crucially important. However, it's also true that more of what is done in public policy could be based on statistical insights, making improving the statistical base, which is a goal of this conference, just as important.

Professor Adrian Smith, in his 1996 inaugural address as president of Britain's Royal Statistical Society, outlined his vision for an evidence-based society 'where decisions about matters of substance ... are taken on the basis of the best available evidence'.² At the Treasury, we deal with matters of substance but we don't always have access to the best available evidence.

Today, I will talk about some of the remarkable achievements of statistical analysis over the past 80 years. These serve to illustrate the importance of statistics and show the power of a good evidence base.

I'll then talk briefly about today's trends, which are conspiring to push evidence into more and more of our policy decisions. Both the technology for collecting data and the appreciation of its value have driven almost universal agreement that policy should be based on the 'best available' evidence.

However, as I mentioned, we are still some way from having the 'best available' evidence at hand. I'll spend the remainder of the talk discussing how we might make better use of the masses of data that we currently collect.

Statistics played a vital role in last century

In order to motivate the power of a strong evidence base, I will begin by looking back over the past 80 years; at achievements that are linked to the development of statistics.

2 Smith (1996).

American economist Richard Froyen, from the University of North Carolina, Chapel Hill, refers with despair to

Presidents Hoover and then Roosevelt designing policies to combat the Great Depression ... on the basis of such sketchy data as stock price indices, freight car loadings, and incomplete indices of industrial production.³

At the same time in Australia, former Commonwealth Statistician (and later Treasury Secretary) Sir Roland Wilson had to publish 'tentative' balance of payments statistics with query marks denoting data gaps.⁴ The policymakers trying to steer the economy through the Great Depression were driving with a shattered windscreen and a badly fogged rear view mirror.

Australia's first national accounts were released in 1945 and were followed soon after by the first use of fiscal policy as a stabilisation tool, because for the first time policymakers had a comprehensive picture of macroeconomic conditions. As the century wore on, policymakers and academics could use the national accounts to gauge the effectiveness of different interventions, helping to refine the macroeconomic levers.⁵

This allowed the Australian economy to transition from periods of growth punctuated by depression – which characterised the nature of the macroeconomy before the Second World War – to the much more benign business cycles of recent history.

Today, as we are faced with the worst financial crisis since the Great Depression, it is to our considerable collective benefit that the statistical evidence base has improved so much as to make possible the pre-emptive monetary and fiscal policy actions that we have seen in recent months.

The availability of data has also helped with the design of more effective microeconomic policies. The 1975 Asprey tax review relied on few statistics and consequently gave only limited insight into how the burden of the proposed system might be shared (the review barely mentions the word 'distribution'). During the 1970s the development of the household income survey, which presented the distribution of income in Australia, supported the modelling of the 1985 tax reforms.

3 Froyen (2005).

4 Australian Bureau of Statistics (2005).

5 Romer (1999) and Bernanke (2004) argue that lower amplitude modern business cycles are the result of better macroeconomic management. But without good measures of economic activity (and consumer price inflation), it would not have been possible to develop (or make use of) the necessary macroeconomic policy instruments.

Then in the 1980s the release of confidentialised unit record files, which show individual responses to surveys, boosted the use of microsimulation modelling, allowing analysts to segment the population into much finer cohorts. Analysts could move from examining the impact of tax policy on the average person, to the impact on the average 30-year-old single male earning less than \$60,000 a year.

Unit record files and input-output tables were instrumental in designing The New Tax System in the late 1990s, and distributional analysis using these types of data will also be crucial to the deliberations of the Australia's Future Tax System Review, which was set up by the Federal Government earlier this year.

These data have also allowed Treasury's climate change modellers to tackle calculations such as estimating the least-cost path to our emissions target. And advances in data allow more targeted interventions to be rigorously examined; for example, identifying industries that may be at risk of carbon leakage upon the introduction of an emissions trading scheme.

Various factors are conspiring to push data-driven decision making into more public policy

Let me now turn my attention to the present; to discuss why it is a good time to focus on improving our evidence base.

Given the achievements of statistical analysis over the past 80 years, it's not surprising that evidence-based policy is gaining traction. At the start of last century, the eminent British statistician Karl Pearson studied the effect of alcohol swigging parents on children. Before beginning the study, Pearson was sympathetic to the temperance movement, which supported the prohibition of alcohol. But to the chagrin of his comrades, his study concluded that children's health and intelligence were not affected by boozing parents. He became a pariah in the movement even though few bothered to read his study.⁶

Today, we'd be less likely to blindly dismiss Pearson's study. More and more social science students are exposed to statistical methods, and data-driven decision making is becoming mainstream in public policy circles. Last month, Australian academics and policymakers gathered in Canberra for the inaugural Evidence-Based Policy Development Conference. On the international scene, over 130 countries sent representatives to last year's OECD World Forum on Statistics, Knowledge and Policy, which aims to foster the development of key indicators that measure the progress of societies. (I'm sure Enrico Giovannini, the OECD's chief statistician, will talk more

6 Stigler (1999).

about this in his session later today.) And attendance at this inaugural NatStats conference is testimony to the importance we all place on our nation's statistics.

Importantly, our political leaders are promoting a greater use of evidence. In an address to senior bureaucrats, Prime Minister Kevin Rudd expressed a need for 'facts, not fads'. He went on to say that '[g]overnment must receive the best advice, based on the best available information and evidence'.⁷ Meanwhile, Treasurer Wayne Swan has spoken of 'ways in which public information can lead to real improvements in policy outcomes'.⁸

The enthusiasm for statistics appears to be shared at all levels of government as the Council of Australian Governments (COAG) agreed to link Commonwealth payments to measured performance outcomes. In December last year, COAG outlined several key areas for reform (including Indigenous affairs, health and education, which we will hear more about in the conference sessions that immediately follow this one). Each reform area has a so-called 'OOMS' framework (objectives, outcomes and performance measures), which outlines the benchmarks that should be met and the statistics that should be used to measure performance in the sector.

To support the national reform agenda, the Government has set up bodies with the express purpose of gathering data. The May federal Budget provided for a National Schools Data and Assessment Centre, which will compile comprehensive data on a school-by-school basis. The data will be used to inform parents, identify underachieving schools and recognise and reward the best teachers.

And the National Housing Supply Council (NHSC), also set up in May, is another data gathering body. The NHSC is promoting consistency across councils, making the data on land available for release comparable across localities. Only with a consistent count is it possible to tackle housing affordability and plan for future housing needs.

Moreover, technological developments are supporting a larger evidence base. Today, Amazon.com's two largest databases are said to hold 42,000 gigabytes of data; storage that would have cost over \$30 billion twenty years ago (more than Amazon.com's current market capitalisation).⁹ At the end of 2007, the world stored 281 billion gigabytes of digital data, but even this enormous amount is expected to grow tenfold over the next five years.¹⁰

7 Rudd (2008).

8 Swan (2008).

9 Business Intelligence Lowdown (2007).

10 IDC (2008).

And the proliferation of sensors means that more data can be reliably captured. In the past, retailers had to do a manual count to know what was on their shelves; today's technologies not only mean that they know what is flying out the door in real time, but with smart cart technology, retailers can track their customers as they browse the aisles, helping them to tweak their store layout.

And advances in computer power mean far more data can be crunched. Modelling the impact of a profile of rising carbon prices on the Australian economy over the next 100 years takes up to 10 hours on Treasury's high-end desktops. Two decades ago, such computations would have taken over a year – and would therefore never have been attempted.

We can improve the evidence base by making better use of the data we collect

So history has demonstrated the power of good statistics and we now have almost universal agreement on the importance of a strong evidence base. We also have the technology to support large-scale data collection, storage and analysis. All that remains is to compile the best available evidence base.

I'll spend the rest of the talk discussing five ways that we might make better use of the data that are already collected.

We should prefer data collected as people go about their everyday lives.

First, we should prefer data collected as people go about their everyday lives.

We collect a large amount of data as people go about their daily business, but frequently rely on evidence collected in surveys. While surveys allow us to ask precise questions, this flexibility comes at the cost of potentially inaccurate answers. In responding to official surveys, businesses lack a strong incentive to report accurate figures, while the threat of litigation compels armies of accountants to file accurate Business Activity Statements. Surveys also suffer from the difficulties of putting together a representative sample; they often rely on people accurately recalling past events and it is difficult to frame questions without sometimes subtly prejudicing the answer.

Initiatives such as Standard Business Reporting, championed by Treasury, which is using **eXtensible Business Reporting Language** to establish common reporting definitions, allow us to collect more accurate and useful data. XBRL is a standard reporting format developed by the accounting industry which allows businesses to consistently map their internal financial data to standard reporting definitions. This means that reporting to ASIC, APRA, the ATO, ABS and the Australian Stock Exchange will be based on a common set of definitions. For example, data submitted in

XBRL format could cover 95 per cent of the measures collected by the ABS Quarterly Business Indicators Survey and must be completed accurately.

What's more, policy analysts rarely have the time to understand individual business filings because businesses use subtly different conventions. XBRL standardises conventions in a computer-readable format, allowing policy analysts to examine companies' finances electronically and more rigorously; to analyse the likely impact of a change in tax treatments or R&D grants on a firm, industry or even the macroeconomy.

We need to make sure data have clear definitions

Secondly, I'd like to discuss the need for well-defined data.

A useful evidence base depends heavily on clear and consistent data definitions. Inconsistent data are a big problem, particularly with figures collected across different jurisdictions. Every year since 1996, the Productivity Commission has released the Review of Government Services (RoGs) report that compares the performance of government services across States. And every year since 1996, readers of the RoGs report are overwhelmed by footnotes explaining the differences in data definitions across jurisdictions – we don't even have a consistent definition of an Indigenous person.¹¹

Thankfully, COAG is making progress on standardising the statistics that are used as performance measures. For the first time this year, schools in all Australian States took the same literacy and numeracy test. (This standardised test caused Queensland's year seven students to drop from the best writers in the country when the State administered its own test in 2005, to the worst performing among States this year.) And as mentioned earlier, the National Housing Supply Council is working towards agreed definitions of land supply by sending people from council to council to help with the count.

Data should be shared

Thirdly, I'd like to reflect on the importance of sharing data.

Having clearly defined administrative data is all very well, but it's next to useless if these data are not shared with those best able to build the evidence base. Our universities and research institutes are teeming with people wanting to draw lessons from agencies' statistics. In many cases it's these researchers who have the time and expertise to build the evidence base. But in many cases these same researchers don't

11 In Tasmania, somebody is Indigenous if they feature on the State's pre-existing registry, while in other States people qualify if they identify as Indigenous.

have access to the data. Researchers are often forced to fumble around like the drunk that searches for his keys under a street light – not because his keys are likely to be there, but because it's the only spot where he can see.

A lack of data means that many researchers end up working on international datasets. Microsimulation specialists pour into Nordic countries because of their liberal approach towards sharing statistics. It is only recently, with the advent of the HILDA dataset, that Australia has had longitudinal data, which tracks people through time. This has led to a large increase in research using these Australian data.

Sharing data not only helps build a base of academic evidence, but also helps more directly in policy decisions. During the current financial turmoil, macro policymakers must make decisions on the basis of only limited information on how the financial turmoil is affecting the real economy. The latest intensification of the turmoil followed the collapse of Lehman Brothers on September 15th. However, it's only in the past week – with the release of dismal US retail trade figures for October – that we're beginning to see the impact of Lehman's collapse on the US macroeconomy. In Australia, we won't have GDP figures that pick up the impact of Lehman's bankruptcy until March next year. All the while, data on things like tax collections, unemployment benefit recipients and business registrations are collected in almost real time and could give macro-policymakers a faster read on the real economy.

And data are invaluable when calibrating our policy models. The computable general equilibrium models used to model climate change policies depend heavily on elasticities – which must be estimated using available data. The more accurate the elasticities, the more valuable the model insights.

Sharing data also promotes accountability. In a recent speech, Treasurer Swan referred to the case of the New York State Department of Health, where collecting and reporting information on every heart bypass sent mortality rates for cardiac operations down by 40 per cent.¹² Also in New York, restaurant chains were recently compelled to report the calories of items on their menus. Studies suggest that this reporting prompts the average diner to choose meals with around 50 fewer calories, and induces restaurants to prepare lighter options.¹³ In a similar vein, school-by-school reporting should help parents make informed decisions, while motivating lagging educators.

Unfortunately, many agencies guard their data with puzzling ferocity, ignoring the benefits they might confer. Some fail to release their stats because they're costly to

12 Swan (2008).

13 The Economist (2008).

compile in a usable format. However the cost of releasing data pales in comparison to the potential costs of misdirected policy.

Moreover, we're not maximising the value we get from our researchers. In 2007-08, the Australian Research Council doled out \$600 million worth of grants to support research that benefits the community. But, at the same time, the work of researchers is being constrained by limiting their access to statistics.

The other major reason for withholding data is privacy; made more worrying by misplaced public records in Britain and Japan. Privacy is a valid concern, with a Carnegie Mellon University study showing that 87 per cent of Americans can be identified from data on their gender, birth date and zip code.¹⁴ However, these concerns are surmountable using techniques that obscure the fields that might reveal individual identities; techniques that have been deployed by the Australian Bureau of Statistics in their confidentialised unit record files.

Data becomes exponentially more valuable when they are combined

My fourth suggestion is to combine disparate records.

We can give a big boost to our evidence base by joining separate records. Combining records is the tax office's most powerful weapon against tax evasion and tax avoidance. If somebody's declared income only supports an ascetic life, but a road authority registers their new sports car, and a state revenue office collects stamp duty on their expensive property, these discrepancies are identified by the tax office prompting it to investigate. Linking data might also make it easier to identify disadvantaged children who often have parents on income support, poor school attendance records and a criminal record – but these data reside with different agencies.

Combining data could potentially create one big longitudinal data set, allowing policymakers to track people from enrolment in childcare, to school attendance and results, through to university and work, and the receipt of pensions or use of superannuation. By tracing people's lives through their data footprint, we could see where and why people slip through the gaps. Of course, there are privacy concerns with such a comprehensive data set, and these concerns are reasonable and need to be managed carefully.

14 Quoted from Baker (2008).

A data repository would be useful

And finally, collating data into a central statistical repository would be helpful. Such a repository could carefully categorise and document data, saving analysts and researchers valuable time. It could also facilitate the sharing of data and possibly the linking of disparate records. The repository might form part of a statistics wiki – a suggestion championed by Enrico Giovannini – with organisations posting their statistics to an open access website, just as people post encyclopaedic entries onto Wikipedia.

The repository should also help to overcome some agencies' reservations about releasing their administrative data. The repository could include systems that allow agencies to publish their data cheaply so that setting up the requisite infrastructure doesn't eat into their budgets. And the repository could include a facility that confidentialises data – meaning that agencies don't have to worry about the privacy of the people that use their facilities.

Of course, the funding of these initiatives must be weighed against other spending priorities – and as a Treasury representative you would expect me to remind you that budget constraints must be honoured – but they should nevertheless remain a goal.

Concluding remarks

Let me conclude by saying that I think everyone here will agree that statistics have been an important part of the past eighty years. And that they'll be an even more important part of the next 80 years. However, as I've mentioned, there is still much we can do to make the most of this vital resource.

Thank you.

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The economic costs of reducing greenhouse gas emissions: Understanding the Treasury modelling

David Gruen¹

Presentation to a CEDA National Forum

11 November 2008

1 Executive Director, Macroeconomic Group, the Australian Treasury. I am extremely grateful to Kath Rowley and Robert Ewing for their help with this speech.

Introduction

Thank you for the opportunity to speak to you today about the Treasury modelling on the economics of reducing greenhouse gas emissions. The report, *Australia's Low Pollution Future*, was released by the Treasurer and the Minister for Climate Change and Water on 30 October.

1. The report is a serious analytical piece. It is more comprehensive than any previous Australian study. It deserves to be taken seriously.

Treasury's climate change modelling exercise is the most extensive modelling exercise ever undertaken by the Australian Treasury.

It began 18 months ago, when the Treasury established a climate change modelling team which gradually built to a strength of 18 dedicated staff. We drew on resources from across the public sector, including the Productivity Commission, ABARE, the Reserve Bank and the Department of Climate Change. Much of the work was done in partnership with the Garnaut Climate Change Review, with expert input from Professor Garnaut and his team.

Eight external consultants contributed to the modelling, including national and international experts in economic modelling of climate change policy, such as Professor Warwick McKibbin and Professor Philip Adams. The Treasury also received invaluable input from industry and environmental groups.

The team consulted with and received support from international experts, including in the OECD, International Energy Agency, and the IMF.

The report presents integrated economic modelling of climate change policy across global, national, sectoral and household scales.

This is a first for Australia. Previous studies have generally focused on one dimension in isolation from the others. But the links are crucial.

Australia is a small open economy, so will be significantly affected by what other countries do. Emission and energy-intensive commodities comprise a large share of Australia's exports, so trends in global demand for these commodities have important implications for us. The Government plans to link Australia's Carbon Pollution Reduction Scheme (CPRS) to other emission markets around the world. This will allow

Australia to access mitigation in other countries, reducing the cost of our contribution to the global mitigation effort.²

Whole-of-world and whole-of-economy analysis takes account of the dynamic interactions between supply and demand, and the competition for resources.

Sectoral analysis provides detailed insights into the transformational process, including possible pathways for technological transformation of key emission-intensive sectors.

Household impacts often get much less attention. The Treasury used its own models to examine the potential initial distributional impacts of the CPRS.

With insufficient time to build a completely new Computable General Equilibrium (CGE) model, Treasury drew on a suite of existing models. Through a rigorous quality assurance process, the team worked with the consultants to update databases, restructure and expand the coverage of the models, and incorporate the latest research on mitigation potential across the economy. This investment improved the quality of the study, and will also improve the quality of future analysis.

We are, therefore, confident that the report provides a comprehensive and robust account of the potential impact on the Australian economy of national, global and sectoral action to reduce emissions.

Nevertheless, like most economic analysis of policies to reduce emissions, the Treasury modelling does not incorporate the potential impacts of climate change itself.

None of the scenarios modelled incorporate the costs of climate policy uncertainty, the impacts of climate change, or the costs of adapting to a changing environment. Nor do the policy scenarios incorporate how these costs and impacts might change if emissions are reduced.

2 There has been some critical commentary about our modelling of the timing and extent of mitigation efforts by other countries across the globe. There will always be disagreement about exact details. But, in our view, the assumptions about global action are consistent with current international trends. Emission trading is already operating in 27 European countries, New Zealand is introducing emission trading this year, around 30 States and Provinces in the United States and Canada are introducing emission trading, United States President elect Obama has committed to introducing schemes to reduce emissions, and Japan is trialling emission trading and intends to introduce a full-scale domestic scheme in 2010 or 2011. For developing countries, constraints on emissions in the policy scenarios are imposed gradually over time. In the CPRS policy scenarios, China's allocation of emissions continues to rise until around 2030, and India's until around 2040. [After the speech was delivered, on 16 November 2008, the new New Zealand Government announced that it had put the introduction of the trading scheme on hold, pending a parliamentary review.]

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The report is not a cost-benefit analysis, so it needs to be evaluated in the broader context of all the costs and benefits of reducing greenhouse gas emissions.

2. Based on current scientific understanding, on the balance of probabilities, reducing global emissions will reduce the risk of dangerous climate change.

Let me say a few words about the science of climate change before returning to the economic modelling.

I am not a climate scientist. I do have an honours degree and a PhD in science, so I have some idea of the scientific method and the nature of scientific evidence. And I have taken a keen interest in the debate about the science of climate change in the 18 months I have been involved with the climate modelling exercise within Treasury.

Climate change is clearly a complex and evolving area of scientific enquiry. Given its complexity, as well as the far-reaching implications of alternative possible judgements about the scientific evidence, it is not surprising that there are some significant differences between climate scientists about precisely what we know, and with what level of confidence we know it.

But how should non-experts like you or I assess the scientific evidence on climate change? On this question, I agree wholeheartedly with Ross Garnaut when he says:

The Garnaut Climate Change Review takes as its starting point, on the balance of probabilities and not as a matter of belief, the majority opinion of the Australian and international scientific communities that human activities resulted in substantial global warming from the mid-20th century, and that continued growth in greenhouse gas concentrations caused by human-induced emissions would generate high risks of dangerous climate change.³

I agree with Professor Garnaut that the relevant yardstick with which to assess the scientific evidence on climate change is not what we know for sure, but what we know on the balance of probabilities. And, on the balance of probabilities, continued growth in greenhouse gas concentrations would generate high and rising risks of dangerous and potentially irreversible climate change.

This seems to me the appropriate place to begin the economic analysis.

If we accept the majority scientific opinion as a reasonable starting point, then it seems appropriate to presume that the world will eventually act to decisively slow and then

3 *Garnaut Climate Change Review* (2008) p 23.

reverse the increase in greenhouse gas emissions (although none of us can be sure precisely when the world will act decisively).

To assume otherwise – that is, to presume that the world’s major emitters will not act at any time to decisively reduce greenhouse gas emissions – is to presume that the world will gradually succumb to potentially catastrophic damage to the global environment.⁴ And that is not a presumption with which any of us should feel comfortable.

This line of logic leads to the conclusion that it makes sense to model the economic costs to Australia of reducing greenhouse gas emissions in a world in which there is a global limit, imposed gradually over time, on the concentration of greenhouse gases. And that is precisely the framework in which the Treasury modelling has been conducted.

This framework has important implications for what the modelling tells us about the relative costs of early as opposed to delayed action.

3. Assuming that the world eventually acts on climate change, there are economic advantages to acting early.

Assuming that the world eventually acts on climate change, the modelling shows it makes economic sense for Australia to act early.

Economies that defer action face higher long-term costs. This is because more emission-intensive infrastructure is locked in place in the meantime. As a result, late movers face a greater adjustment task when they do act. Global investment is then redirected to early movers.

In the scenarios modelled, economic costs in 2050 for early movers are around 15 per cent lower than when everyone acts together, while costs for late movers are around 20 per cent higher.⁵

4 The prehistoric peoples of Easter Island took this path, and paid the price (Collapse, Jared Diamond, 2005). We would do well not to follow their lead. Another logical possibility is that majority scientific opinion is simply misguided and will turn out to be a fad. However, to invoke such a possibility as a basis for deciding on public policy seems to me extraordinarily foolhardy.

5 *Australia’s Low Pollution Future*, Box 5.4, p 104. Early action could also bring other benefits not captured in the economic models, like reducing policy uncertainty and allowing a more planned and gradual adjustment for capital and labour. Delay means you need to do more in a shorter time to secure the same environmental outcome.

This finding might come as a surprise to some, who expect that Australia will lose competitiveness and face high costs if it acts ahead of other economies.

But this finding is in fact analogous to Australia's experience with tariff reductions. Imposing an emissions price gradually changes the orientation of the economy towards lower emission sectors. These are the sectors that will provide the basis for Australia's long-term comparative advantage in a world in which an eventual global constraint is imposed on greenhouse gas emissions – just like tariff cuts which move the economy towards its true comparative advantage.

No doubt, we will see a lot of competing analysis released in the coming days, months and years.

We welcome this analysis. Ideas are ultimately contestable. Economic modelling of climate change policy, particularly over the long term, requires concrete assumptions in areas in which there is genuine and profound uncertainty. Expert opinion will vary, and this will be reflected in differences across studies.

This brings me to my next point. Despite different opinions about the timing and nature of global action, the availability and cost of technologies, and the precise details of Australia's CPRS, differences between estimates of the aggregate economic impacts of mitigation policy aren't as great as you might think.

4. Estimates of the economic cost of reducing emissions are not that different across studies. What varies most is not the results, but how they are presented.

There is a lot more consistency across studies – including the Treasury's – than the headlines suggest. Differences are often more to do with presentation than substance. Consider the following example:

- GNP is 4.7 per cent lower at 2050;
- GNP is \$208 billion lower at 2050;
- Annual GNP growth slows by 1/10th of 1 per cent out to 2050;
- GNP is 4.4 times higher than 2000 levels in 2052 instead of 2050, a delay of two years.

These are different ways of presenting the same result.

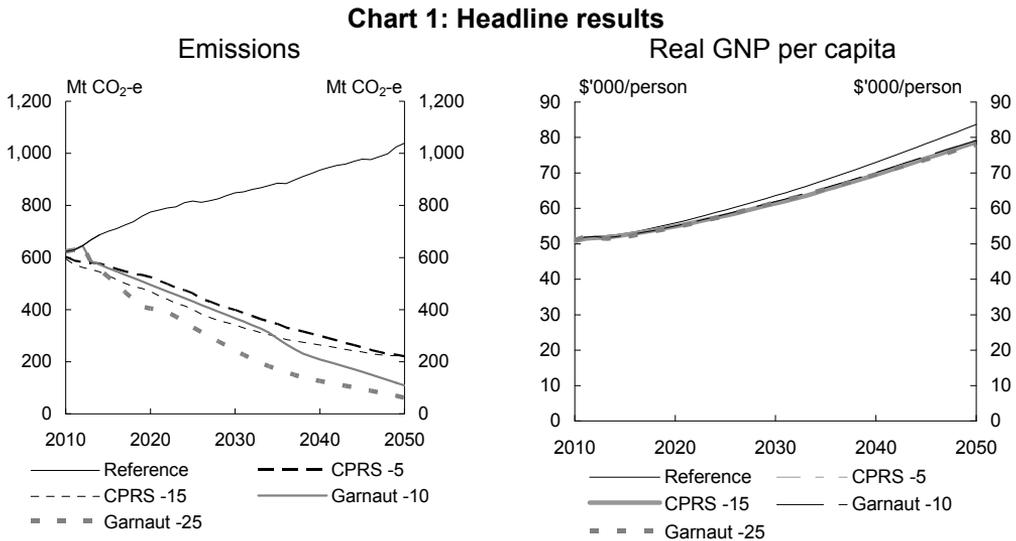
Economic modelling results are often presented as a change relative to a reference case – the '4.7 per cent lower at 2050' measure. This is a sensible approach when

you're interested in how a particular policy could influence the economy in isolation from other events. It indicates the scale of the impact, and allows comparisons across years and across studies.

However, a reduction from the reference case is not the same thing as a reduction from today's levels. Where the reference scenario projects growth, the reduction generally corresponds to slower growth rather than an absolute reduction.

For long-term analysis, differences in growth rates can be more informative, and less prone to misunderstanding.

The report finds that Australia and the world continue to enjoy robust economic growth while making the emission cuts required to reduce the risks of dangerous climate change. Even ambitious emission reduction goals have limited impact on national and global economic growth (Chart 1).



Source: Treasury estimates from MMRF.

GNP per capita grows at an annual rate of 1.1 per cent in the policy scenarios, 1/10th of 1 per cent less than the 1.2 per cent annual growth in the reference scenario.⁶

Gross world output grows at 3.3-3.4 per cent per year in the policy scenarios, compared to 3.5 per cent in the reference scenario.

⁶ To be precise, the annual growth rate of GNP per capita is slightly different across the four policy scenarios but rounds to 1.1 per cent when expressed to one decimal place. Results are rounded to avoid implying a false sense of precision.

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This is wholly consistent with the results of previous studies.⁷

The Treasury report does not examine unilateral action by Australia. Unilateral action is not consistent with the Government's policy, nor with what can already be observed internationally (as was detailed earlier).

How does a decline in annual growth in GNP per capita of 1/10th of 1 per cent compare to other challenges facing the Australian economy?

Treasury's analysis of the likely impact of Australia's ageing population provides an interesting point of comparison. The Intergenerational Report (2007) projected that the big fall in fertility in the 1960s and 1970s, combined with continual increases in life expectancies, will lead to an annual growth rate of GNP (or GDP) per capita over the next 40 years that is ½ per cent slower than over the past 40 years.

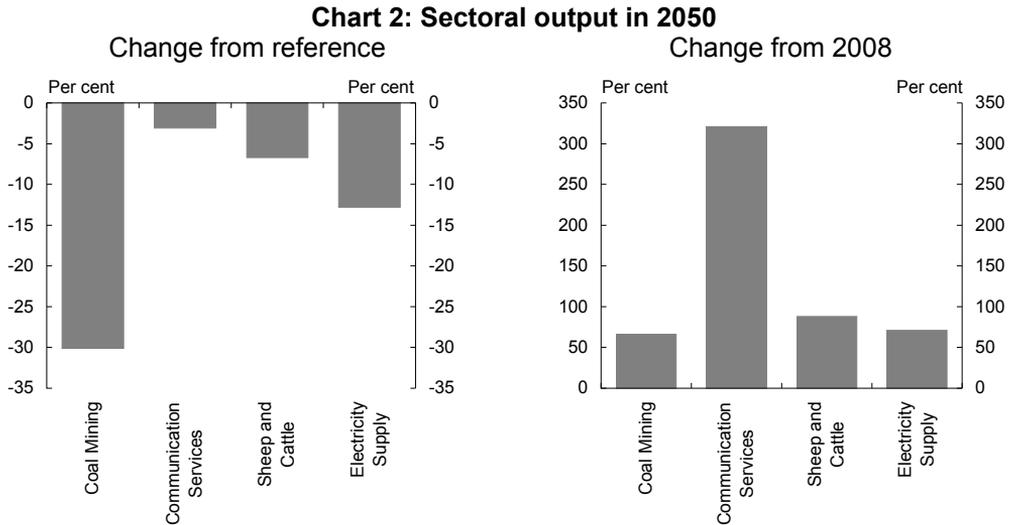
Thus, the effect of changed demographics in the Australian population is projected to lead to a slowdown in annual per capita growth five times larger than the slowdown projected here. As the Intergenerational Report made clear, adjusting to demographic change will require economic and social adjustments in the Australian economy, but these adjustments should prove manageable. Much the same comment applies to the economics of significantly reducing greenhouse gas emissions.

It is important to keep in mind the magnitude of these aggregate economic costs when evaluating the sectoral impacts of mitigation policy, and in particular, structural adjustment needs.

The Australian economy will adjust gradually from its current structure. Mitigation policies introduced in coming years will change the pattern of future economic activity, so the reference scenario economy of 2050 will not eventuate. Today's economy provides a useful reference point from which to evaluate sectoral impacts.

7 Even worst-case scenarios in previous studies indicate deep cuts in emissions are consistent with robust economic growth. In July 2006, ABARE published a study which included a scenario in which Australia unilaterally takes much stronger mitigation action than all other countries (*Economic impact of climate change policy: the role of technology and economic instruments*, ABARE research report 06.7). All of the additional action is done within Australia, rather than through international emissions trading. It also assumes fairly limited mitigation opportunities, and no technology cost reductions stemming from learning-by-doing. The emission price in Australia rises to over A\$600/tCO₂-e in 2005 prices, and Australia's GDP is 10.7 per cent below the reference scenario in 2050. This corresponds to average annual GDP growth of 2¼ per cent over the 2010-2050 period, compared to 2½ per cent in the reference case. In other words, annual GDP growth falls by ¼ of 1 per cent.

For example, the modelling indicates that the gross output of many sectors in the economy falls relative to the reference scenario, but rises significantly relative to current (2008) levels (Chart 2).⁸



Source: Treasury estimates from MMRF.

For these sectors – and for most others that fall relative to the reference scenario – growth continues, albeit at a slower pace than we might expect in a world without emission pricing.

Growth in other sectors – such as iron ore mining, other animals, forestry and renewable electricity generation – accelerates.

Only aluminium production, petroleum refining and coal-fired electricity are projected to contract relative to today’s levels of production, because of emission pricing.⁹

⁸ Results from Table 6.11, *Australia’s Low Pollution Future*, p 164.

⁹ The contraction in aluminium reflects the relatively high emission-intensity of aluminium production in Australia. With an effective global response to climate change, low-emission producers will gain a comparative advantage. Australia is likely to lose competitiveness in aluminium production, so its share of global trade in aluminium declines. The contraction in coal-fired electricity (a domestic rather than trade-exposed sector) reflects the shift to lower emission technologies, such as gas in the medium term and renewables in the longer term.

5. We've taken great care in developing the modelling assumptions. The assumptions used represent the Treasury's best assessment of plausible central estimates within the range of possible values.

Models cannot clear away the fog of ignorance through which we all gaze at the future. They are not crystal balls.

Models need firm assumptions and these assumptions become more difficult the further out we look. Imagine trying to foresee the current state of the world from the perspective of 1908. 1908 saw the beginning of the popular use of cars, with the production of the Model T Ford. The first two-person plane flew in May of that year. Australia's GDP per capita was around the same level as China's is today. Agriculture accounted for over 15 per cent of Australian employment.

In 2008, Australia and the world looks very different from this. Likewise, it is impossible today to foresee the state of the world in 2050 or 2100. But from the perspective of today, economic models, while clearly imperfect, are the best analytical tools available. I sometimes imagine the choices we face like this: You can inform policy decisions by using admittedly fallible economic models, or you can ask your uncle. I, for one, have never hesitated over this choice.¹⁰

Treasury consulted widely with government, industry and other non-government stakeholders to gather information about input assumptions, did extensive research, and drew on domestic and international experts.

Expert opinion on many relevant issues varies widely. The assumptions represent Treasury's best assessment of plausible central estimates within the range of possible values. Where possible, we used sensitivity analysis to explore how different assumptions - including for resource prices, timing and coverage of policy action, and the cost and performance of key technologies - might change the cost estimates.

Our assumptions regarding carbon capture and storage (or CCS) technologies have attracted some attention, and I have included an appendix on this issue.

Clearly, the particular mix of mitigation activities projected in the modelling reflects the assumptions made. Supply-side opportunities to reduce emissions, and demand-side responses to changes in relative prices, are uncertain, particularly over the longer term. As a result, it is impossible to accurately predict how much mitigation will occur in each sector and in each year.

10 With apologies to Alan Blinder, The Lionel Robbins Lecture, 1998.

This is precisely why it is more efficient to create mitigation incentives across the whole economy, rather than target specific emission sources or sectors. Broadly-based market-oriented policies, such as the Carbon Pollution Reduction Scheme, allow the market to respond as new information becomes available.

This brings me to my final point.

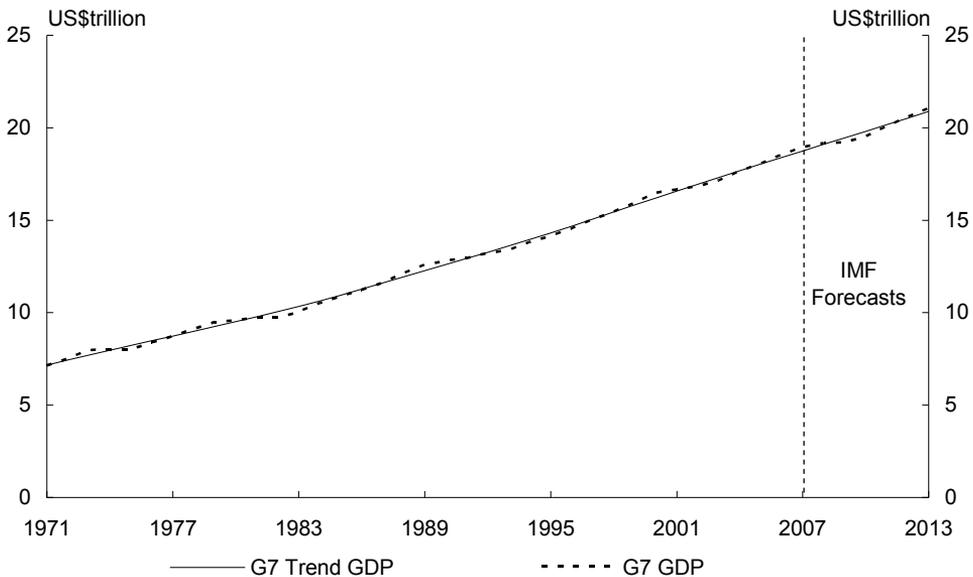
6. The modelling is not diminished by the global financial crisis.

Like much long-term analysis, including that presented in the Intergenerational Report, the modelling focuses on medium to long-term trends in the economy rather than shorter run fluctuations.

The actual path of Australian and global economic growth from now out to 2050 will be affected by a wide range of factors. Business cycles and economic shocks, such as the current global financial crisis, will have significant impacts on the economy in the short term.

However, this should not materially affect the analysis in this report. This is because, over long timeframes, trends provide a reasonable approximation of actual economic growth.

Chart 3: G7 Economic output
Actual and trend



Source: IMF World Economic Outlook October 2008 and Treasury.

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As Chart 3 shows, actual growth in the G7 economies rises and falls as economic shocks – such as the oil shock of the mid-1970s, the global recession of the 1980s, and the dot com boom and bust of the early 2000s – work their way through the economy. On the far right hand side of the chart, you can see the IMF's October 2008 forecasts for the next five years. The global financial crisis means that G7 economic growth is forecast to be clearly below trend – but only for a few years.

But it's the trend, not the wiggles, which is important in assessing climate change mitigation. It is the trend in economic activity over the next four decades, not the next four months or four years, along with a myriad of other detail about the longer-term structure of the Australian and global economies, which is important for assessing what profile for emission prices is required to generate any given environmental outcome. And it is economic analysis over these time scales that is relevant for an assessment of the longer term economic costs of reducing greenhouse gas emissions.

Treasury's climate change modelling exercise represents a major undertaking, with input from a wide range of experts. We have taken great care to use assumptions that represent our best assessment of plausible central estimates within the range of possible values.

No modelling exercise can offer the last word on an issue as complex as the economics of reducing greenhouse gas emissions. But we are confident that the report provides a comprehensive and robust account of the potential impact on the Australian economy of national, global and sectoral action to reduce these emissions.

Thank you for your attention.

Appendix: Carbon Capture and Storage (CCS) Technology Costs

The availability, cost and performance of low-emission technologies are an important determinant of economic costs. For Australia, CCS technologies are particularly important, as they are likely to underpin future global demand for our coal resources.

The Treasury consulted widely in developing its assumptions for this key technology, including with industry, the International Energy Agency, international experts such as the Electric Power Research Institute, and local experts such as the Cooperative Research Centre for Greenhouse Gas Technologies. The Treasury contracted with MMA and ACIL-Tasman to provide specific research, and we also reviewed a wide range of published studies on the topic.

The results of this research are reflected in the modelling assumptions regarding when CCS technologies become available, the performance of those technologies, and the emission price at which they become competitive with other low-emission options.

The modelling finds that CCS for coal in Australia is deployed when the emission price reaches a value in the range \$45-\$80/t CO₂-e (Australian dollars, 2005 prices), growing at 4 per cent per year. (The exact initial price within this range varies by scenario.)

A recent response to Treasury's report asserts that the Treasury modelling assumes 'that coal CCS technology is generally deployed at a carbon price of \$45 per tonne of CO₂-e', and that '[w]ork by Concept Economics suggests a more realistic carbon price spectrum of between \$60-\$90 per tonne before such technology is economically viable.'¹¹

In fact, the Treasury modelling range of \$45-\$80/t CO₂-e (Australian dollars, 2005 prices) is within the range of industry estimates and significantly overlaps the Concept Economics range of \$60-\$90/t.

The Concept Economics' critique also states that:

[t]he International Energy Agency has estimated the cost of carbon capture and storage to be between USD40 (AUD57) and USD90 (AUD128) per tonne of CO₂ captured and stored.

11 Concept Economics, 2008. *Treasury Modelling Assumptions on Climate Change Mitigation Policy: Key Issues*, prepared for the Minerals Council of Australia.

In fact, the cited source states that:

The IEA has noted that the cost of CCS is estimated to be between USD 40 and USD 90 per tonne of CO₂ captured and stored; and that with the most cost-effective technologies, capture costs are as low as USD 20-40 per tonne of CO₂ (IEA, 2006a). Transport would add as much as a further USD 10/tonne. The IEA concluded that the future cost for CCS will depend on which technologies are used, how they are applied and how far costs fall as a result of R&D and learning realised during market uptake.¹²

Given the importance of CCS technologies, and the range of expert views, the Treasury modelling includes sensitivity analysis which explores the possibility of improved performance, and the possibility that CCS might not prove commercially viable. If CCS does not prove commercially viable, other technologies are deployed. Global mitigation costs in 2050 are around 10 per cent higher, and Australia's costs are around 25 per cent higher than under central assumptions.¹³

12 http://www.iea.org/Textbase/work/2008/asean_training_coal/Clean_Coal_CIAB_2008_WEB.PDF

13 *Australia's Low Pollution Future*, Table 6.9, p 158.

Opening statement to the Senate Standing Committee on Economics

David Gruen¹

Canberra, 22 October 2008

1 The author is the Executive Director, Macroeconomic Group, the Australian Treasury.

Thank you for giving me the opportunity to make an opening statement.

Since we last appeared before the Committee in June this year, there have been dramatic developments in global financial markets and, largely as a result of those developments, a significant deterioration in the outlook for the world economy. Governments and central banks around the world have acted to counter the effects of these adverse financial market developments. The scope and speed of their actions is unprecedented in our lifetimes.

Here in Australia, the Government has acted to support economic growth directly through its Economic Security Strategy. The Reserve Bank of Australia has also reduced official interest rates by 1¼ percentage points in the past two months. Both the Government and the Reserve Bank have introduced measures to support liquidity and the smooth operation of debt markets and the banking system.

In this environment, I thought it would assist the Committee if I gave a summary of the most important of these financial market developments and outlined Treasury's view of how they will affect our economy. I will also provide you with some background on the processes that we follow in forming our view.

Let me begin by quickly going back to the last set of forecasts that we published. These were in the 2008-09 Budget brought down in May this year. At that time, we forecast GDP growth to be 2¾ per cent in 2008-09, a noticeable slowing from the estimated 3½ per cent growth in 2007-08. If realised, the 2008-09 forecast would be the lowest growth rate since 2000-01. When those forecasts were published, financial market disruption had already been evident for some time, particularly in the United States and Europe, and the world economy was expected to slow.

Since May, we have presented updated forecasts to the Treasurer on two occasions, the first following the release of the March quarter National Accounts in June and the second following the release of the June quarter National Accounts in September.

Let me focus in particular on the most recent update. As is standard practice, the forecasts were finalised following a meeting of the Joint Economic Forecasting Group, known by the inelegant acronym JIEFG. JIEFG is chaired by Treasury and has representatives from the Reserve Bank of Australia, the Department of the Prime Minister and Cabinet, the Department of Finance and Deregulation and the Australian Bureau of Statistics.

The JIEFG report presents Treasury's forecasts, but these forecasts have been informed by discussions with the other agencies.

JIEFG met on Friday 19 September, a little over two weeks after the release of the June quarter National Accounts on Wednesday 3 September. The JIEFG report and the associated forecasts were sent to the Treasurer in late September. The forecasts covered the 2008-09 and 2009-10 financial years.

Between the Budget and early September, there had been a gradual accumulation of evidence suggesting both that problems in global financial markets were becoming more severe and that the likelihood of a serious economic slowdown in the advanced economies, particularly the United States, was increasing. As a result, our forecasts for economic growth in Australia were also being revised down. As the Prime Minister has told the House of Representatives, the growth forecasts in the September JIEFG report had a '2' in front of them. As a point of comparison, in recent years we would have put Australia's potential growth rate at around 3 to 3½ per cent.

In addition to the forecasts themselves, the JIEFG Report presented to the Treasurer contained a considerable discussion of the risks to the economic outlook stemming from both the financial market disruption that had already occurred and the possibility that more might occur.

There has been no formal update of Treasury forecasts since the September JIEFG report, other than the update we are currently finalising to feed into the Mid-Year Economic and Fiscal Outlook, which will be released within the next few weeks.

I will have more to say about Treasury economic forecasts shortly. But first I want to take you through some of the crucial events that occurred in financial markets and the world economy through September and October.

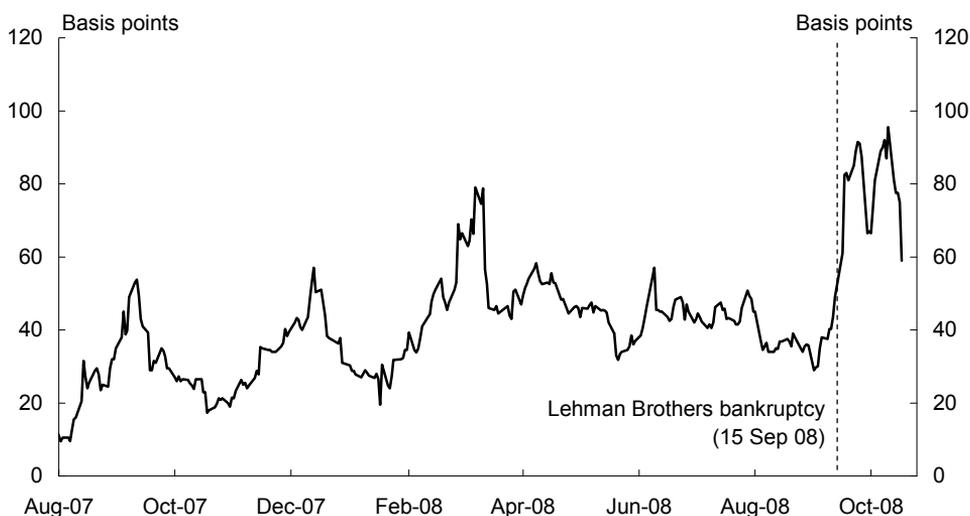
On Friday 5 September, US payrolls data showed that the US unemployment rate jumped 0.4 percentage points to 6.1 per cent in August, a clear indication of significant further deterioration in the US real economy. On Sunday 7 September, the US Treasury and the Federal Housing Finance Agency took steps that effectively nationalised Fannie Mae and Freddie Mac.

Sunday 14 September marked the beginning of a rollercoaster week for the US. Lehman Brothers, the fourth-largest investment bank in the United States, filed for bankruptcy. While it was not entirely evident at the time, the collapse of Lehman led to a serious intensification of the severity of the financial crisis.

There had been an expectation that a deal would be put together to save Lehman. When that did not happen, there was a significant adverse impact on confidence. Financial markets scrambled to unwind counterparty risk and withdraw credit lines, moving instead to invest in the relative safety of government debt.

As you can see from the first of the two charts that I handed around, the result was a significant and sustained increase in financial market strains, as summarised here by the interest rate premium on 90 day bank bills. I should emphasise that the chart is for Australian data, showing how quickly these financial market shocks can be transmitted across the globe.

Chart 1: Australian inter-bank lending spreads (90-day bank bill to 3-month OIS)



Note: Data as at close 20 October 2008. OIS is overnight indexed swap.
Source: Reuters.

On Monday 15 September, Merrill Lynch entered into an agreement to be acquired by Bank of America. Goldman Sachs and Morgan Stanley successfully applied to the Federal Reserve to become commercial banks, widening their potential sources of funding.

At the beginning of 2008, there were five US investment banks. By the middle of September, there were none.

On Tuesday 16 September, data released showed US housing starts falling a further 6.2 per cent in August. The same day, one of the world's largest insurers, American International Group, effectively collapsed. AIG entered into agreements with the Federal Reserve and New York state authorities that would allow it to sell its assets in the most orderly manner possible.

On Wednesday 17 September, Primary Reserve became only the second mutual fund in US history to 'break the buck' – that is, to have its net asset value fall below US\$1 per dollar invested – after it wrote off US\$785 million on Lehman Brothers debt. BNY Institutional Cash Reserves also saw its net asset value fall below US\$1 per dollar invested and Putnam Investments liquidated its Prime Money Market Fund. With net

asset values falling below US\$1 per dollar invested for some of these usually very safe funds, investors began to redeem their money, triggering the distressed sale of securities and causing severe market dislocation.

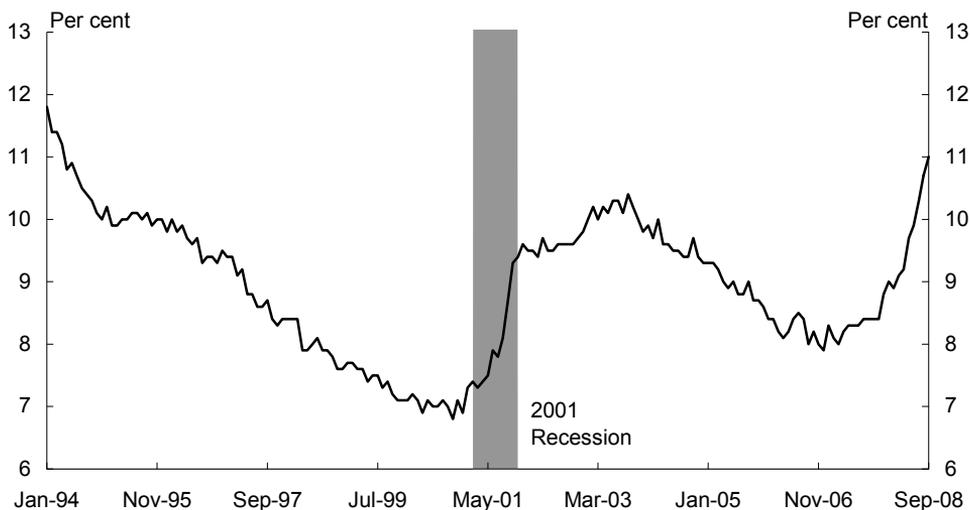
On Thursday 18 September, the Federal Reserve significantly expanded its swap operations with other central banks and, on Friday 19 September, the US Treasury submitted legislation for Congress to approve the US\$700 billion Troubled Asset Relief Program. On Thursday 25 September, Washington Mutual collapsed in the biggest US bank failure in history.

On Monday 29 September, the focus shifted to Europe, with the collapse of three institutions: Fortis, a Belgian financial group; Bradford and Bingley, the UK's largest lender to landlords; and Glitnir Bank, Iceland's third largest lender. The German Government extended emergency support to Hypo Real Estate, Germany's second-largest commercial property lender. On Tuesday, the governments of Belgium, France and Luxembourg combined with existing shareholders to inject €6.4 billion of new capital into financial services group Dexia.

On Friday 3 October, the Emergency Stabilization Act of 2008 – a modified version of the Troubled Asset Relief Program – was eventually passed by Congress. The package provided US\$700 billion for the Treasury to purchase assets, with US\$250 billion available immediately.

Data released the same day showed US non-farm payroll employment falling by 159,000 in September, although the unemployment rate remained at 6.1 per cent. What was more troubling, however, were the recent outcomes for a broader measure of underemployment in the US. This broader measure includes both the unemployed and those who want to work longer hours but are unable to find such work. It is shown in the second chart that I have circulated to you.

Chart 2: US Underemployment



Source: US Bureau of Labor Statistics.

This broader measure of US underemployment is not one we would normally look at. It came to our attention because Paul Krugman posted it on his *New York Times* blog. As the chart shows, US underemployment in September 2008 was already higher than at any time during, or after, the 2001 recession, and was continuing to rise rapidly. And this was happening before the mid-September intensification of the financial crisis had had time to have any material impact on the US real economy.

It seemed that the US economy was weakening at a disturbing pace, and that the recent intensification of the financial crisis was only going to make matters worse.

Also on Friday 3 October, we participated in a phone hook-up with other G-20 countries. During that call, an official from the International Monetary Fund advised that, even at that late stage, the IMF was further reducing its forecasts for world economic growth in 2009 to be published on Wednesday of the following week. The IMF forecasts had already been reduced a couple of times from their initial estimates. In total, from July to October, the IMF reduced its forecast for advanced economy growth in 2009 from 1.4 per cent to 0.5 per cent, with much of this downward revision occurring in the weeks before the forecasts were finalised.

On Monday 13 October, European nations agreed to a package of measures to support the financial system, including the guarantee of interbank loans and the purchase of equity in banks. Later that week, the United States announced a plan to stand by all key financial institutions by purchasing equity from financial institutions and guaranteeing all senior unsecured debt issued by eligible financial institutions, as well as guaranteeing non-interest bearing transaction deposit accounts. Measures similar in nature to these had also been announced by a number of other countries.

Throughout these events, financial markets were extremely volatile, with swings in share market indices and exchange rates of 5 per cent or more on a number of days. In Australia, from mid-September to mid-October, the ASX200 fell from above 5,000 points to around 4,000 points, and the Australian dollar fell from above 80 to below 70 US cents.

Let me, at this point, return to the issue of forecasts.

In principle, it is possible to put together a set of economic forecasts in half an hour and I imagine there are people who do just that. All you need do is jot down a couple of growth numbers and come up with a plausible story to justify them. But forecasts like these add little to our understanding of the world.

A coherent and useful set of forecasts requires a more careful specification of the assumptions you are using – for interest rates, for exchange rates, for share prices, for commodity prices, etc – and a clear analysis of the mechanisms by which you think these factors might affect the economy. The narrative around the forecasts comes out of this analysis. You also need to be clear about what you don't know, and about the nature of the major risks to the outlook.

In Treasury's case, preparing a set of economic forecasts in this way from a standing start would take us about a week; longer if we consulted extensively with our colleagues in other economic departments and agencies.

In the current situation – that is, if we were to have updated our forecasts in late September or early October – we would not have been working from a standing start. We already had a prepared set of forecasts in mid-September. We could have locked ourselves in a room with our September forecasts and the new information that had accumulated since they were finalised and spent two or three days coming up with a coherent set of new forecasts.

Had we done so, however, it is clear that international events were moving so rapidly that, when we emerged from that hypothetical room after a couple of days, we would have wanted to rip the forecasts up and start again.

We did not think that this was a particularly useful exercise. You can, I suspect, appreciate the difficulties of putting together a coherent set of forecasts in a period of such extraordinary volatility.

What we did think would be useful was to carefully track developments in financial markets and the world economy and to analyse their implications for Australia. We were constantly updating the Treasurer and his staff, and through them the

Government, on events as they unfolded and their likely implications for the Australian economy.

In such circumstances, the central forecast of what might happen to the economy is probably less valuable than a careful assessment of the balance of risks. And, for the most part, the accumulating evidence was suggesting that the balance of risks around our September forecasts for Australian economic growth were shifting decisively to the downside.

In situations like this, macroeconomic policy must be ready to respond quickly and substantively to developments as they occur.

On this point, let me quote from the minutes of the October monetary policy meeting of the Reserve Bank Board that were published by the Reserve Bank yesterday: 'The paper prepared for the Board recommended a large reduction in the cash rate, of at least 50 basis points, with the amount to be subject to review in light of any events occurring between the preparation of the paper and the time of the meeting. In the event, the recommendation put to the Board at the meeting was for a reduction of 100 basis points, to 6.0 per cent.'

This is an example of the speed with which the risks around the outlook were changing. As the Governor said in his statement following the meeting, '... the Board judged that a material change to the balance of risks surrounding the outlook had occurred, requiring a significantly less restrictive stance of monetary policy'.

The same 'material change to the balance of risks surrounding the outlook' was also central to the decision about whether or not to introduce a short-term fiscal stimulus package. When confronted with such a decision, the right question to ask is: what is the policy of 'least regret'?

And when deciding on the policy of 'least regret', it is important to remember the extremely unusual circumstances that have confronted the Australian economy over recent weeks. It is rare to get such a strong signal over such a short time period – I am referring to the three weeks following the collapse of Lehman Brothers – that the outlook for the world economy has deteriorated so significantly. The shock is unusual in terms of both its size and the speed of its transmission through the world economy. Furthermore, even before the recent intensification of the global financial crisis became evident, the Australian economy was growing at a below-trend pace and was expected to slow further.

In these circumstances, the Government decided that the 'least regret' policy was to introduce a significant short-term fiscal stimulus package to support economic activity at the end of 2008 and into early 2009. The stimulus is specifically targeted at household consumption and dwelling investment, areas of spending that recent data confirm as being particularly weak.

It is rare for macroeconomic policy to be called upon to move so quickly. When that happens, it is because big and potentially destructive forces are at play in the economy.

I am sure that Committee members will have many questions for us and we are happy to take them now.

The macroeconomic implications of financial ‘deleveraging’

Will Devlin and Huw McKay¹

Financial ‘deleveraging’ is inimical to the health of the world economy. This article examines the theoretical and practical mechanics of deleveraging, surveys the historical record of prior deleveraging phases and describes the circumstances that distinguish the current episode. The macroeconomic implications of deleveraging are then considered.

The conclusion is that the first stage of the deleveraging process, which is driven by the decline in both asset values and lending to borrowers at the riskier end of the spectrum, is currently well advanced. The second phase, where the decline in credit availability begat by the initial phase hurts the value of more prosaic asset classes, and less marginal borrowers, is significantly less advanced. This dynamic will place significant stress on the world economy in 2009. For emerging markets the impact will differ depending upon a number of factors, with the single most important among them being pre-crisis external financing arrangements.

On an optimistic note, policy makers are well aware that the magnitude of the challenge presented demands a forthright global response from the public sphere. The multi-dimensional global policy response provides needed insurance against downside risks to growth next year, and lays the foundation for recovery in the period beyond.

1 The authors are from Macroeconomic Group, the Australian Treasury. Huw McKay is on secondment from Westpac Economics. This article has benefited from comments and suggestions provided by David Gruen, Bill Brummitt, Jyoti Rahman and Tony McDonald. The views in this article are those of the authors and not necessarily those of the Australian Treasury or the Westpac Bank.

Introduction

It has often been noted that the finance industry has a remarkable ability to corrupt the use of the English language. Financial innovation is not limited to the creation of financial instruments: it is on constant display in the flow of neologisms emanating from the sector. A quick search of the *Macquarie Dictionary* reveals no matches for the term 'deleveraging'. Idiomatic arguments aside, however, the process it seeks to describe is currently an important feature of the global financial system and is likely to be so for a considerable period of time. In fact, financial deleveraging is a malignant force in the world economy.

The circumstances that can lead an individual financial institution to deleverage its balance sheet are readily understandable. However, the aggregate consequences of such behaviour can be inimical to economic growth. The auto-catalysing and self-perpetuating negative feedback loop between bank balance sheets, asset prices, credit supply and the real economy, once it catches hold, can do significant damage and can be extremely difficult to arrest.

The article proceeds as follows. First, the theoretical and practical mechanics of the deleveraging process are laid out. Second, the avenues whereby financial stresses are transmitted to the real economy are enunciated. Third, the current situation is outlined with reference to historical precedent. This section also addresses the impact of the deleveraging process upon the world economy in the coming period.

The broad conclusion is that the first stage of the deleveraging process, which is driven by the decline in both asset values, and lending to borrowers at the riskier end of the spectrum, is currently well advanced. The second phase, where the decline in credit availability engendered by the initial phase hurts the value of more prosaic asset classes, and less marginal borrowers, is significantly less advanced. This dynamic will place significant stress on the world economy in 2009.

What is financial deleveraging?

In a general sense 'leverage' is the degree to which an individual, firm or financial company (or nation for that matter) has accumulated debt, and is best understood when scaled by a metric relevant to the party concerned. It follows that 'deleveraging' refers to the reversal, or unwinding, of previously accumulated leverage.

To understand the mechanics behind the deleveraging process it is useful to begin with some basic balance sheet accounting. Before looking at the balance sheets of financial institutions, first consider the balance sheet of a representative household. The household owns a house financed by a mortgage (assume that this is the only asset the household owns). The balance sheet looks as follows.

Assets	Liabilities and net worth
House (\$100,000)	Mortgage (\$90,000)
	Net worth (equity) (\$10,000)

Leverage is defined as the ratio of total assets to net worth, and is given by:

$$100,000 / (100,000 - 90,000) = 10.$$

Now suppose the value of the house falls to \$95,000. The leverage ratio becomes

$$95,000 / (95,000 - 90,000) = 19.$$

As the value of the house declines, the household’s net worth also declines and its leverage ratio increases. For most households, such fluctuations in net worth and leverage would not ordinarily solicit a response – in other words households do not actively manage their balance sheet. There are multiple historical examples of households suffering through a phase of ‘negative equity’ during a house price bust.

Leverage and the bank balance sheet

If banks did not adjust their balance sheets in the face of fluctuating asset prices, then their leverage ratios would also vary inversely with the value of the asset side of their balance sheets. However, banks actively manage their balance sheets to maintain a targeted leverage ratio. They do this for two main reasons.

Firstly, banks manage their key balance sheet ratios in order to maintain their credit rating targets and thus their cost of capital (Adrian and Shin 2008). A bank whose leverage ratio rises significantly above its targeted level – due, for example, to an unanticipated decline in the value of its assets – risks having its credit rating downgraded, which is likely to increase the price at which it is able to access capital.² In such circumstances, the bank must ‘deleverage’ its balance sheet if it is to return to its target leverage ratio.

Secondly, banks are governed by prudential regulations which set minimum requirements on the amount of equity (or ‘capital’) they must hold against their assets. These minimum requirements are set with the aim of ensuring that banks have a sufficient capital buffer to absorb unanticipated losses.

2 Another way of saying this is that a bank’s optimal capital-asset ratio is *implicitly* determined by the market.

Box 1: A simple example of bank balance sheet deleveraging

To understand how financial institutions manage their balance sheets, it is useful to examine the structure of a basic bank balance sheet. A bank balance sheet differs from that of a typical household or firm in important ways. In a financial sense, the primary activity of a bank is to manipulate its balance sheet by 'creating' assets and liabilities, which it does by making loans.

Each loan the bank makes involves the creation of an asset on one side of the balance sheet (the loan) which is balanced by a liability (usually a deposit or funding sourced from wholesale markets). The (simplified) balance sheet looks as follows:

Assets	Liabilities and net worth
Loans	Deposits
Securities	Borrowings
	Net worth (equity capital)

Equality of both sides of the balance sheet is achieved via net worth, which is the difference between the bank's assets and liabilities. Net worth is what is claimed by, or owed to, the owners of the bank. In the case of a bank, net worth is typically referred to as 'equity capital' or, more simply, 'capital'. A widely used measure of a bank's financial health is its capital-to-asset ratio (hereafter CAR) which, in simple terms, is equivalent to the inverse of the leverage ratio described above.

Drawing from Adrian and Shin (2008), consider a bank that actively manages its balance sheet so as to maintain a constant CAR of 10 per cent. Assume the bank has assets of \$100,000 and liabilities of \$90,000. Its initial CAR is:

$$\text{CAR} = (100,000 - 90,000) / 100,000 = 10 \text{ per cent.}$$

Now suppose that the market value of the bank's assets falls by \$1,000. The CAR decreases to:

$$\text{CAR} = (99,000 - 90,000) / 99,000 = 9 \text{ per cent.}$$

The bank targets a CAR of 10, implying that its leverage is now too high. Another way of saying this is that its capital base has become too small relative to its assets. The bank can adjust down its leverage – 'deleverage' – by cutting back on its lending (or by selling securities) and using the proceeds to reduce liabilities by the required amount.

Suppose that it decides to reduce its lending by \$9,000 and use the proceeds to pay down \$9,000 worth of debt. Its CAR would then increase to:

$$\text{CAR} = (90,000 - 81,000) / 90,000 = 10 \text{ per cent.}$$

The key point to note is that because the creation of an asset necessarily involves the creation of a matching liability, the only way for the bank to get back to its targeted CAR in this simplified example is by *shrinking* the size of its balance sheet. Deleveraging reduces the value of the denominator, which increases the CAR.

Highly leveraged financial institutions and pro-cyclicality

The process of deleveraging can also extend beyond the traditional banking system to other financial institutions, such as investment banks and hedge funds. For these highly leveraged financial institutions, the imperative to deleverage during times of financial market stress can be far stronger than is the case for more traditional commercial banks.

There is a wealth of empirical evidence suggesting that the target leverage ratios of investment banks rise and fall with the business cycle. Adrian and Shin (2008), for example, present evidence that leverage is strongly pro-cyclical for the major US securities dealers and brokers. More specifically, there appears to be a strongly *positive* relationship between changes in total assets and changes in leverage, such that at times when the value of their assets is increasing, investment banks tend to increase their target leverage ratios, and vice versa.³ By implication, the deleveraging process for investment banks when asset prices are decreasing entails sales of assets above and beyond what would be required to keep leverage ratios constant.

The empirical literature points to the existence of a range of factors that explain why leverage tends to be pro-cyclical amongst some financial institutions. The theory of a 'financial accelerator' (Bernanke, Gertler and Gilchrist 1996) suggests that the ease with which financial institutions are able to access finance from external sources is inversely related to their net worth or, more generally, the value of the assets (less liabilities) they are able to offer as collateral.⁴ To the extent that financial institutions' net worth is positively related to the business cycle and asset prices – a reasonable assumption – financial institutions will tend to lever up their balance sheet when economic activity and asset prices are increasing, and vice versa.

Another strand of the literature emphasises the role that limitations in risk perceptions play in explaining the pro-cyclical behaviour of financial system participants. Borio, Furfine and Lowe (2001) argue that inappropriate responses of financial market participants to changes in risk over time provide an additional source of pro-cyclicality over and above what could reasonably be ascribed to financial accelerator-type effects. They argue that these inappropriate responses stem mainly from difficulties in

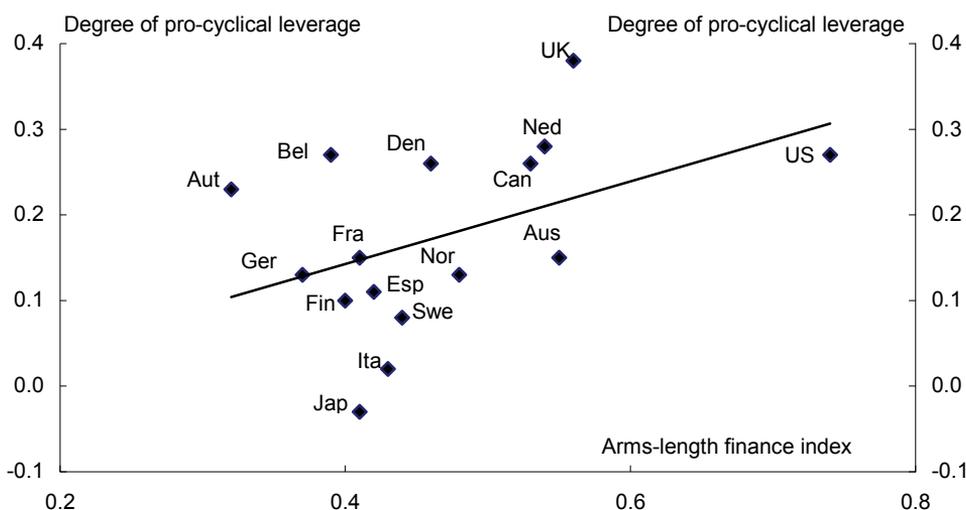
3 Pro-cyclical leverage is not a term that financial firms are likely to associate themselves with, preferring such terms as balance sheet optimisation. In practice, financial firms take balance sheet decisions based on their value-at-risk (VaR), which defines the required capital to efficiently underscore an asset holding scaled by the appropriate probability of loss.

4 This inverse relationship arises because when borrowers have little or no wealth to commit to project financing, the potential divergence of interests between the borrower and the suppliers of external funds is greater – as compensation for the additional risk, lenders will demand a larger premium (or may not be willing to lend to the borrower at all).

measuring the time dimension of risk, but also from market participants having perverse incentives to react to risk.

There is also evidence that the degree of pro-cyclicality within an individual financial system is strongly related to the importance of disintermediation in the supply of credit. Put another way, the more 'arm's length' are financing arrangements, the greater is the balance sheet dependence of financial firms on the performance of the securities markets. In Chart 1, the IMF's index of arm's length behaviour in financial systems is mapped against its measure of pro-cyclical leverage. There is a clear and far from surprising positive relationship between the two.

Chart 1: Pro-cyclical leverage and arms-length finance



Source: IMF.

Another highly leveraged type of financial firm, the hedge fund, is also extremely susceptible to adverse moves in securities markets.⁵ The pressure to deleverage their balance sheets in a phase of falling asset prices can come via several channels.

Firstly, if the returns on a hedge fund's investment portfolio (its funds under management multiplied by its leverage ratio) fall, it may be issued with margin calls from its creditors and redemption demands from its investors. If these demands exceed the fund's expectations, it will have to liquidate a portion of its portfolio to

5 Hedge funds are a heterogeneous group that can be broadly classified by investment strategy into 'long only' or 'macro'; 'long-short'; 'relative value'; 'event driven'; and mixed strategies. A good summary of the relative size of the different fund types is available in Blundell-Wignall (2007). Note that the predominance of strategies that are non-directional implies that hedge funds do not necessarily need to deleverage just because conventional returns in the major asset classes are falling.

accommodate them. A hedge fund's creditors may also require it to significantly increase the cash collateral (colloquially, 'the haircut') that it must deposit as a capital buffer against the possibility that it encounters difficulties and is unable to repay its loans.

Hedge funds typically establish lock-in periods of a year or more with investors, in addition to defining specific redemption windows. This gives the funds flexibility to pursue slow-maturing investments or positions in illiquid asset classes, but it also enables them to predict and allow for redemption demands on a known timetable. Under normal circumstances these rules imposed on investors are sufficient to prevent large bouts of forced selling due to unanticipated cash demands around redemption windows.

In recent history though, hedge funds have been under significant stress. Redemptions and margin calls have been occurring en masse as the industry's performance has been underwhelming and investors eschew risk. Amplifying the difficulties of dealing with these issues has been the failure of key 'prime brokers' – the underwriters of hedge funds – in Bear Stearns and Lehman Brothers, and the deleveraging imperative at other embattled investment banks.

As lending to hedge funds is a material element in the overall exposures of the banking system, particularly for investment banks (Blundell-Wignall 2008, tables 6 and 7), the accelerator effects of the failure of hedge funds on the one hand and prime brokers on the other might reasonably be expected to be substantial. The spike in volatility post the Lehman Brothers failure is a stark illustration of this.

Hedge funds have become a major source of liquidity across a number of asset classes (Blundell-Wignall 2007). As a group, hedge funds reportedly comprised between 30 and 60 per cent of turnover in a number of important securities markets at the end of 2007 despite a relatively small share of total assets under management.⁶ Ergo, if hedge funds deleverage as a group, formerly liquid markets – credit derivatives, non-deliverable foreign exchange forwards and emerging market debt spring to mind – could become seriously disjointed.

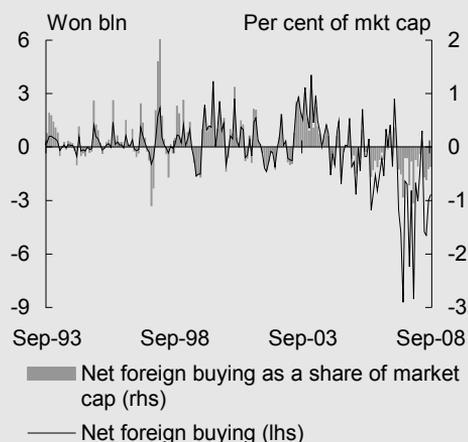
⁶ Hedge funds reportedly managed just US\$1.9 trillion globally at the end of 2007 versus approximately US\$29 trillion in pension funds and US\$27 trillion in mutual funds (Aizenman and Glick 2008).

Box 2: Emerging markets and global deleveraging

The emerging markets have seen extremely large withdrawals of foreign capital as the global deleveraging process has accelerated in the second half of 2008. That is despite the fact that emerging market balance sheets are sound on the whole, as proxied by the extraordinary accumulation of foreign reserves over the course of the current decade. The stock of foreign investment in the emerging markets rose substantially in the easy credit era. This was evident in a narrowing of bond spreads, an appreciation of exchange rates and a sharp rise in equity market valuations.

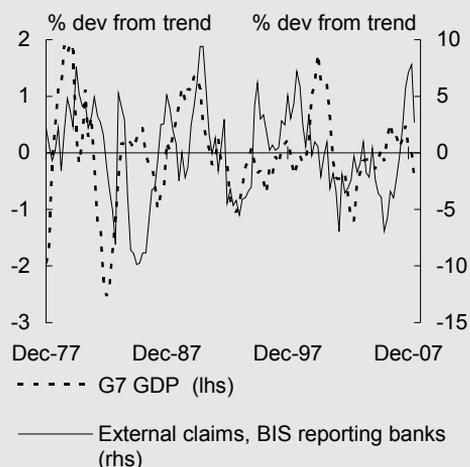
The liquidation and repatriation of a material portion of this stock as part of the deleveraging process saw an abrupt reversal of fortunes for emerging market asset prices. This impact was most pronounced in countries where portfolio capital flows are substantially liberalised, such as Korea (Chart 2). The pro-cyclical nature of cross-border lending activities is illustrated by Chart 3. Note that it is conditions in the home economies of financial firms with global operations that informs their decisions: hence the choice to map external banking claims against G7 activity rather than a measure of emerging market activity.

Chart 2: Foreign activity in the Korean equity market



Source: CEIC, Westpac Economics.

Chart 3: Pro-cyclicity of cross-border claims^{(a)(b)}



(a) Trend and seasonal adjustment calculations by the authors.

(b) Correlation coefficient between the two series is 0.2.

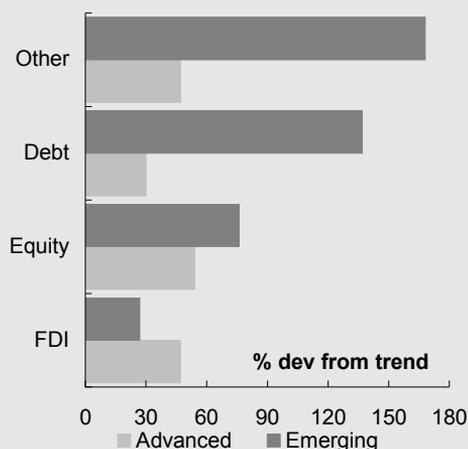
Source: BIS, Treasury calculations.

The wealth effect from asset prices to consumption is less pronounced in emerging markets than in advanced countries (International Monetary Fund 2008b: chapter 4). The relevance of the wealth effect will vary based upon the relative importance of equities as a share of overall financial assets, and the breadth and sectoral breakdown of this holding. In some cases banks and non-financial firms have significant holdings of direct equity, indicating that a wealth effect on investment could emerge, in tandem with an impact on consumption. It is worth noting that the most volatile segments of emerging market capital inflow are debt and bank lending, while equity and direct investment are more stable. That indicates that the structure of emerging market capital flows is precisely opposite to that of the developed economies (Chart 4).

Box 2: Emerging markets and global deleveraging (continued)

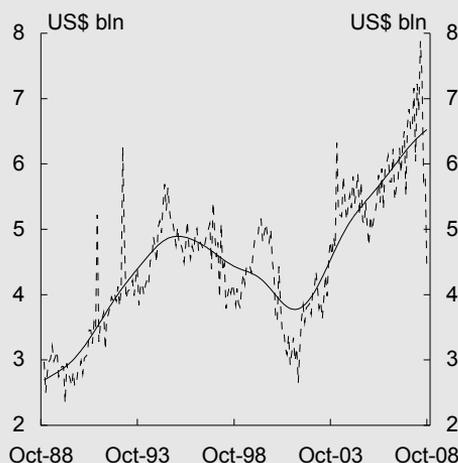
The direct trade channel, with export volumes to the major advanced economies in decline as their economies contract, is a serious concern for many emerging markets, particularly in Asia. Anecdotal evidence suggests that a lack of trade finance is leading to the cancellation of existing orders as well as preventing new business from being conducted. While timely data on the provision of trade credit is not available for a broad sample of countries, evidence from global business surveys and trade finance data where available indicates that international trade was severely curtailed in October (Chart 5).

Chart 4: Volatility of capital flow by type



Source: McKinsey Global Institute.

Chart 5: Letters of credit for trade extended in Taiwan (sa)^(a)



(a) Trend and seasonal adjustment calculations by the authors.

Source: CEIC, Westpac.

A further avenue whereby deleveraging is impacting the emerging market economies is through commodity prices. Professional investors initially sold their commodity holdings to raise cash and meet redemptions. That imperative has given way to a fundamental decision that with world growth deteriorating, commodities are not an attractive asset class. This affects the various regions in differential fashion due to diverse resource endowments. Most simply, it will redistribute income away from the resource-rich (Latin America, Russia, Middle East, Africa) and towards the resource-poor (Asia).

One area that warrants particularly careful watching is the withdrawal of bank capital from regions where loans are a major form of external financing. The economies of emerging Europe look particularly vulnerable on this score. There is evidence that emerging Europe has benefited from the recycling of petrodollars through the European banking system, driving domestic credit booms and rapid asset price appreciation. The reversal of this flow as European financials deleverage and oil revenues slow could be extremely damaging for growth in emerging Europe.

Deleveraging of the financial system as a whole

From the point of view of an individual financial institution the motivations for deleveraging are readily understandable. However, there are aggregate consequences of such behaviour for the financial system as a whole that are not taken into consideration by individual financial institutions. In a way, this is a further illustration of David Hume's 'tragedy of the commons', where the incentive of the individual is out of sympathy with the encompassing interest. This issue is generally illustrated in terms of the provision of public goods (Olson 1965). Where deleveraging is concerned, the issue at hand is the avoidance of a public 'bad'.

The deleveraging of one financial institution can lead to pressures for other financial institutions to do likewise. Forced asset sales, particularly during periods of market illiquidity, establish new benchmark prices to which remaining assets are marked down, potentially affecting large portions of the financial system and reinforcing the need to deleverage. The use of 'fair value accounting', that requires banks to value tradable assets on their balance sheet at a price at which they might reasonably expect to transact, amplifies the pro-cyclicality of the deleveraging imperative (International Monetary Fund 2008, chapter 3). Moreover, a common shock to bank capital, which forces a large proportion of banks to deleverage at the same time, will have self-reinforcing effects. These pressures can be particularly intense amongst highly leveraged institutions for whom leverage tends to be most pro-cyclical, such as investment banks.

Suppose, for example, that an investment bank suffers a decline in the value of its securities holdings which leads it to lower its target leverage. As discussed above, this entails sales of assets that are larger than those required for leverage to remain constant. All else being equal, this puts downward pressure on the value of those assets, potentially leading other institutions to deleverage.

In the presence of such feedback effects, the adjustment of leverage and price changes will tend to reinforce each other in an amplification of the system-wide deleveraging process (Adrian and Shin 2008).

Even in the absence of forced selling, the process of writing down asset values on balance sheets has system-wide repercussions. In markets that are not transacting, the announcement of a writedown of securities essentially sets the new mark-to-market valuation benchmark. For instance, if all banks have written down their sub-prime mortgage-linked securities to 40 cents in the dollar in a particular earnings round, and the first reporting institution in the subsequent round writes its holding down to 20 cents, there is pressure for all other firms to do the same.

The incentives of individual executives come into play in the writedown process. A new executive has the incentive to 'slash and burn' early in their tenure, with all immediate losses (and declines in the share price) attributable to the previous administration. These losses also establish flattering base effects for achieving strong earnings growth in the future. An incumbent executive has the reverse incentive. They are more likely to be conservative with their decisions on writedowns in the hope that they can smooth earnings in the short run.

How can financial deleveraging affect economic growth?

The means by which financial institutions choose to reduce their leverage ratio can have quite different implications for the financial system, and the economy as a whole. In practice, a bank whose capital base falls below its targeted level or regulatory minimums can:

- raise new capital from investors, usually by issuing new shares in order to restore its capital base⁷;
- retain earnings and reduce dividend payouts, so that capital is rebuilt internally; or
- reduce the size of its balance sheet by cutting back on lending, calling in existing loans or selling other assets, so that the smaller capital base is consistent with asset size and capital requirements.⁸

The aggregate consequences of deleveraging via raising new capital, or reducing dividend payouts, are generally small. Raising new capital from investors, while likely to dilute the value of existing shareholders, can allow a bank to quickly restore its CAR with little or no disruption to its normal operations of providing credit to businesses and households. However, at times of extreme risk aversion, or investor dissatisfaction with the financial system itself in the case of a uniform shock to capital, attracting new external funds can be difficult and prohibitively costly for existing shareholders.

Similarly, rebuilding capital by retaining more earnings and cutting dividend payouts is likely to result in little disruption to a bank's normal operations, but this process can take considerable time — a luxury that banks may not have at times of financial stress.

7 In practice, rather than diluting the ownership rights of the existing shareholders, an issue of preference shares (dividend-attracting but without voting rights) is often pursued to replenish capital.

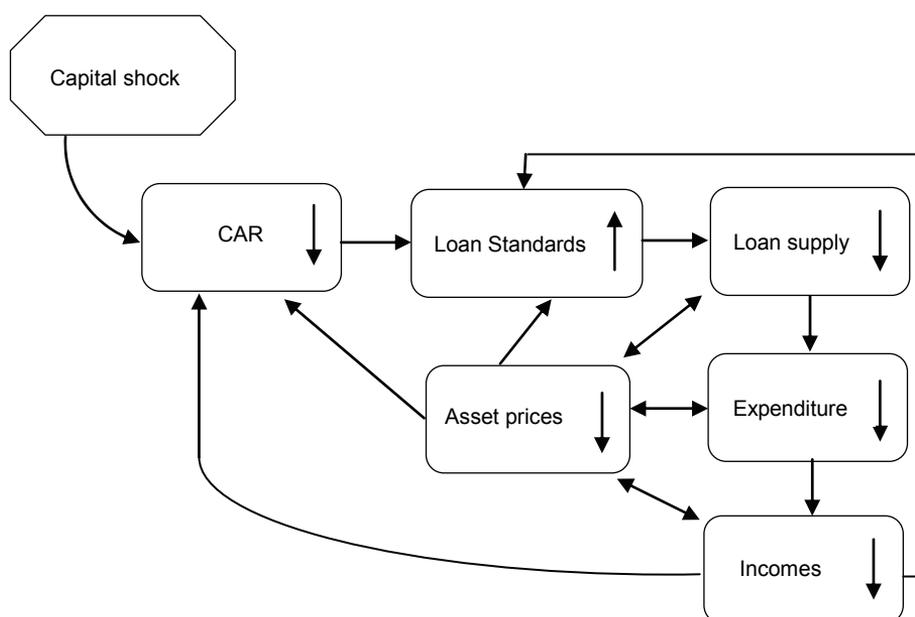
8 Another way for a bank to increase its (risk-weighted) capital-asset ratio is to substitute relatively safe securities — which have a smaller risk weighting — for riskier assets such as business loans.

The bank capital channel

By contrast, the macroeconomic implications of deleveraging via a reduction in bank lending growth can be significant. There is a large and growing body of empirical evidence to suggest that shocks to bank CARs which lead to a contraction in the availability of credit within an economy – the so-called ‘bank capital channel’ – can have large and long-lasting economic effects.⁹

Figure 1 presents a stylised representation of the processes via which financial system deleveraging can affect the real economy. Consider a common shock to the asset side of bank balance sheets caused by, for example, losses on sub-prime mortgage assets. This causes a decline in bank CARs (or an increase in leverage).

Figure 1: Financial deleveraging and the macroeconomy

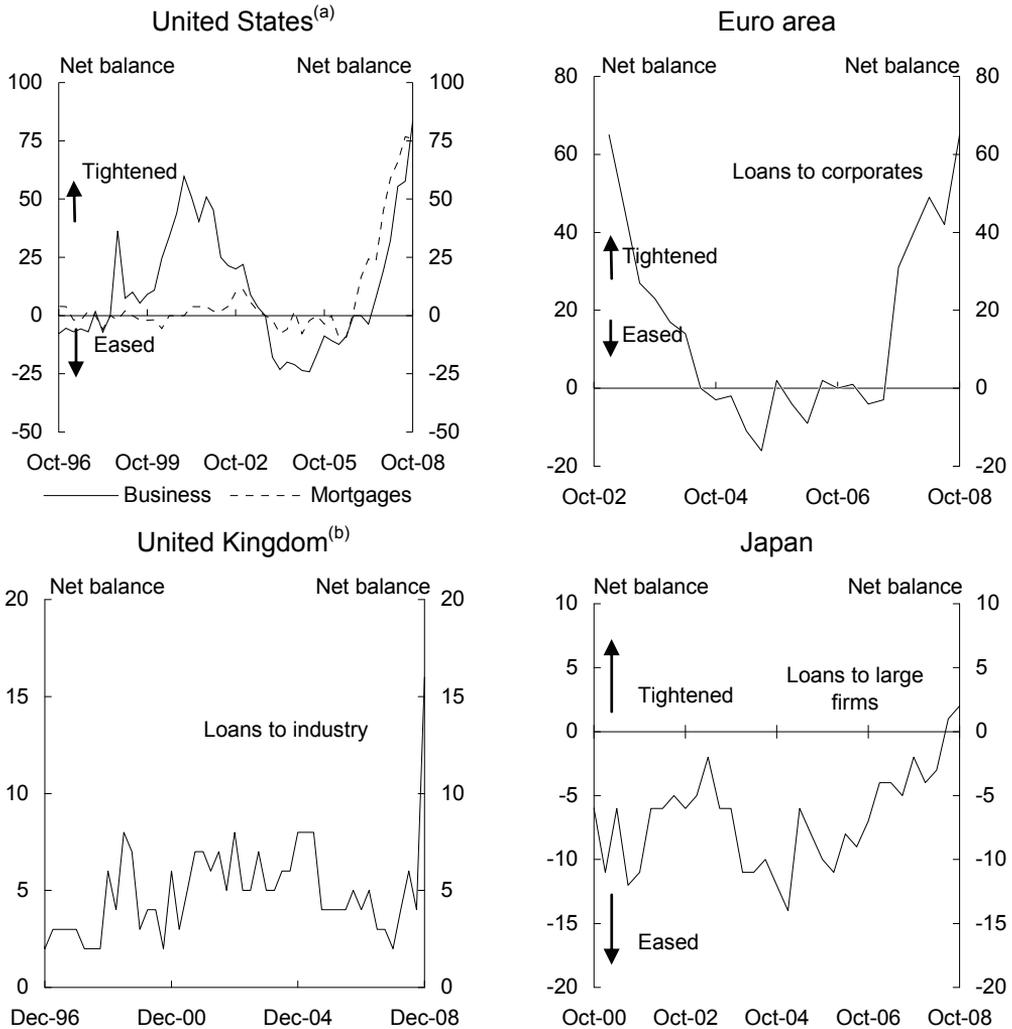


Source: Augmented version of Bayoumi and Melander (2008).

In order to restore CARs to their targeted or mandated levels, assume that banks deleverage by reducing lending growth. Banks reduce lending growth by tightening their loan standards. Loan standards are simply non-price loan terms which reflect credit availability – a tightening in loan standards is associated with a decline in the supply of loans. Time series evidence on the evolution of lending standards in four major countries is presented in the charts below.

⁹ Bayoumi and Melander (2008); Kashyap, Rajan and Stein (2008); Swiston (2008); Greenlaw et al (2008); Bernanke, Lown and Friedman (1991); Kashyap and Stein (1995); Peek and Rosengren (1995); and Altunbas, Gambacorta and Marques (2007).

Chart 6: Loan standards



(a) The series of lending standards on mortgages to individuals for the US is a weighted composite of standards on prime, sub-prime and non-traditional mortgages.

(b) Series is the net balance of surveyed firms citing the inability to raise external finance as a factor likely to limit capital expenditure (12-month forecast).

Source: Thomson Reuters, CEIC, US Federal Reserve, European Central Bank, Confederation of British Industry, Bank of Japan.

When credit availability falls, there is a direct effect on consumption and investment expenditure within an economy and asset prices come under pressure. In turn, a reduction in consumption and investment spending and asset prices leads to a reduction in incomes (household income, GDP and business profits) through standard economic multiplier effects and wealth effects.¹⁰ These negative impacts then redound

¹⁰ Moreover, to the extent that declining asset prices signal slower growth of future real incomes, this can also have a deleterious impact on consumption spending.

upon loan quality, leading to further losses for the banking system, and sparking a further round of deleveraging. Thus, the final effect of a negative shock to bank CARs on aggregate economic activity can be significantly larger than the initial direct effect. This is the negative feedback loop of dubious renown.

These negative feedback effects are closely related to the theory of a 'financial accelerator' raised earlier, which can similarly explain the process by which a shock that affects the creditworthiness of borrowers more generally reduces the willingness of the financial system to provide credit to the economy and thus amplifies the effect of the initial shock on the economy.¹¹ The precipitous declines in asset prices commonly associated with major deleveraging episodes – by reducing collateral values – can also reduce the willingness of the financial sector to provide credit to the economy.

Equally, significant asset price declines can affect the strength of business investment. Investment spending on plant and equipment, for example, is likely to be negatively affected by a decline in equity prices, which increase the cost of equity capital, thus reducing the incentive to expand productive capacity.¹²

Fluctuations in asset prices can also provide entrepreneurs with information about market expectations of future demand, thus potentially influencing investment decisions. Empirical studies have found that private fixed investment spending is well explained by expected future output growth – to the extent that movements in asset prices (particularly equity prices) contain information about the strength and direction of future GDP growth, they will thus influence current and planned investment (see, for example, Barro 1990).

11 See, for example: Bernanke, Gertler and Gilchrist (1996); Bernanke and Gertler (1995); and Kiyotaki and Moore (1997).

12 The cost of equity finance is the real rate of return required by shareholders, typically measured by the ratio of corporate earnings (dividends plus retained profits) to equity prices. A fall in equity prices without a corresponding decline in earnings reflects a higher required rate of return, a higher cost of finance and, hence, a higher cost of capital.

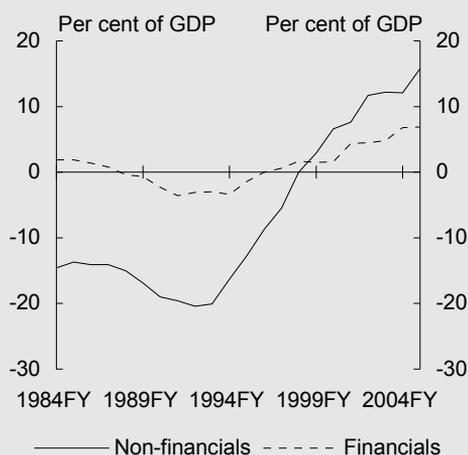
Box 3: The Japanese experience of deleveraging

Japan's economy suffered from an extremely protracted period of deleveraging that extended for most of the 1990s and deep into the current decade. The *ex ante* imbalances that begat the period of deleveraging were most visible in the extraordinary rise in asset prices observed across the economy.

A favourite media sound bite of the time was that the Imperial Palace gardens in Tokyo had a market value exceeding that of the state of California. Pro-cyclical credit extension, driven by ever-rising collateral values, accommodative bankers and acquisitive corporations, was in full evidence.

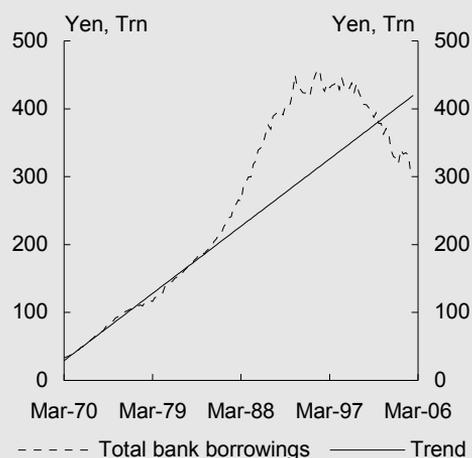
The Japanese deleveraging phase is best seen using a flow of funds framework. Both the financial and non-financial sector spent the duration of the 1990s reducing leverage ratios in line with the ongoing collapse in asset prices. This resulted in both sectors transitioning from large net borrowers in the early 1990s to large net lenders by the late 1990s (Charts 7 and 8).

Chart 7: Net lending by sector



Source: Nomura, BoJ, Cabinet Office, Westpac Economics. Data smoothed. Japanese fiscal years begin on April 1.

Chart 8: Bank credit to incorporated non-financial firms^{(a)(b)}

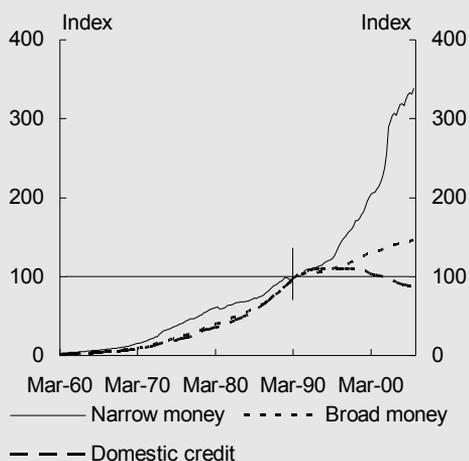


(a) Bank borrowing of non-financial corporations as reported in the Financial Statement Statistics of Corporations by Industry.
 (b) Linear trend estimated for 1970 to 1985 period.
 Source: Japanese Ministry of Finance, Westpac.

Monetary policy became truly impotent in this environment. Banks were reducing their asset bases and firms were not demanding finance. Despite the Bank of Japan's eventual move to a zero per cent overnight policy interest rate and a quantitative easing policy that produced steep increases in base money, credit outstanding continued to contract (Chart 9). Further, the futility of monetary policy was amplified by the combination of the zero nominal interest rate bound and deflation of the overall price level. This combination resulted in positive real rates — an inappropriate stance to say the least.

Box 3: The Japanese experience of deleveraging (continued)

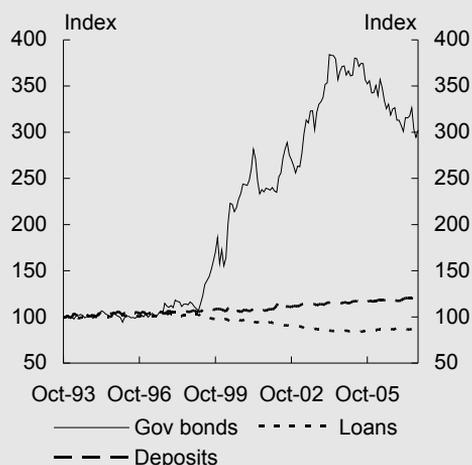
Chart 9: Japanese monetary policy rendered impotent^(a)



(a) Raw data is indexed to the average balances for calendar year 1990.

Source: OECD, Westpac Economics, Nomura Research Institute.

Chart 10: Under 0% regime: Government bond holdings up, loans down^(a)



(a) Balance sheet holdings of domestically licensed banks. Indices based at 1993 Q4.

Source: Bank of Japan, CEIC, Westpac Economics.

Indeed, the banking system spent much of the zero interest rate era borrowing cheap overnight funds and purchasing Japanese government bonds with the proceeds: essentially shuffling money from the Bank of Japan to the Finance Ministry and back again (Chart 10).

In contrast to the current situation in the US, at the time Japanese banks valued assets on their balance sheet at acquisition cost. If they had been forced to mark-to-market, writedowns would have been early and vicious and they would have been forced to deleverage in dramatic fashion. As it was, they deleveraged in slow motion over a decade and a half and non-financial corporations did the same. Japan suffered through three separate downturns in the 1990s and another in 2001. The extreme fragility of bank and corporate balance sheets left the economy unable to resist adverse cyclical developments.

A crucial lesson from the Japanese experience is that decisive policy action to recapitalise banks at an early stage is vital to repair the functioning of monetary policy. Furthermore, leaving bad assets on bank balance sheets and hoping to grow out of the problem is fraught with danger.

However, neither policy addresses the fundamental issue of asset price deflation. Any agent in the process of deleveraging is a forced seller, and forced sellers are poison for asset prices. Declining collateral values trigger the fearsome non-linear dynamics of the financial accelerator, a powerful deflationary force.

The real effects of deleveraging — empirical estimates

A number of recent empirical studies have attempted to quantify the real economic effects of shocks to bank capital and a reduction in credit provision. Such exercises are inherently subject to great uncertainty, although they provide some foundation upon which to gauge the real effects of financial deleveraging.

Using a macro model to account for potential feedback effects from the real economy to banks' capital and credit, Bayoumi and Melander (2008) analyse the effects on the United States economy of a negative shock to banks' capital asset ratios of 1 percentage point. They find that this leads to a fall in overall credit provision of 2.5 per cent of GDP and a peak reduction in the level of GDP of 1.4 per cent relative to baseline after three years. The level of GDP remains constrained for around six years, suggesting that the effects of the initial capital shock can prove quite protracted.

In a regression-based analysis Swiston (2008) finds strong evidence of a causal relationship between credit availability and economic activity, and discredits the notion that lending standards merely tighten as a precaution when an economic slowdown is foreseen. Using the US Federal Reserve's senior loan officer survey to proxy for credit availability, he finds that a net tightening in lending standards to business of 20 percentage points is associated with a decline in GDP of $\frac{3}{4}$ per cent over one year and $1\frac{1}{4}$ per cent over two years (again, relative to baseline).

In its April 2008 *Global Financial Stability Report*, the International Monetary Fund (IMF) presents a simple vector autoregression model to gauge the impact of a negative shock to lending growth on US GDP growth. Two scenarios for lending growth are modelled: a 'credit squeeze', in which annual lending growth slows from around 8 per cent of the total stock of US private sector debt to 4 per cent; and a 'credit crunch', in which annual lending growth slows to just 1 per cent of total debt outstanding. A credit squeeze and a credit crunch, spread evenly over three quarters, are found to reduce annual GDP growth by around 0.8 and 1.4 percentage points respectively, assuming no other shocks to the system.

It is worth noting that all such studies are necessarily conducted on an 'all else being equal' basis and can only model the 'average' response of financial institutions to a negative capital shock. They do not, for instance, take into account any monetary or fiscal policy response that could ordinarily be expected in the face of significant financial shocks.

A significant easing in monetary policy can directly strengthen bank balance sheets in important ways: by lowering interest costs on their outstanding short-term debt; by steepening the yield curve, thereby creating a profitable opportunity for banks to 'borrow short and lend long' (Blundell-Wignall 2008); and, since declining interest

rates are typically associated with rising asset values, by increasing the value of the bank's assets.

Similarly, a more determined effort by banks to shrink their balance sheets through the sale of non-core assets could significantly alter the aggregate consequences of a negative capital shock. A greater-than-usual willingness among investors to subscribe to fresh capital for banks might allow more assets to be rolled over rather than to mature, and, thus, limit the associated impact on credit provision. Direct injections of public capital into distressed banks could also reduce pressures on banks to preserve capital by reducing their lending (International Monetary Fund 2008b).

Deleveraging and the economic outlook

The direct macroeconomic impacts of the current financial crisis are beginning to intensify. When the first signs of financial disruption began in August 2007, the initial prognoses of both public and private sector analysts were generally sanguine about the flow-on effects to the real economy.

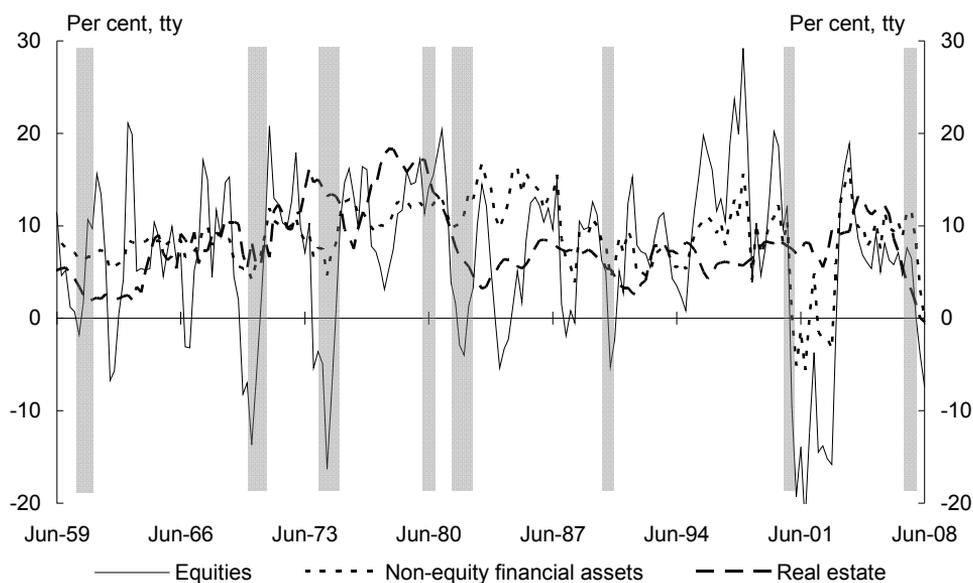
Indeed, outside the United States, world growth continued to out-strip forecasters' expectations right up until the March quarter of 2008. The IMF, for instance, revised up its world growth forecasts for 2008 *and* 2009 in July, reflecting resilient March quarter growth in a broad range of jurisdictions, plus a firmer June quarter in the United States due to the tax rebate package.

The forecasting community has been in downgrade mode ever since, with growth prospects weakening seemingly by the day through the final months of 2008.

The epicentre of the original negative impulse, the US housing market, is still exhibiting wretched fundamentals. The wealth of US households is under attack from all sides. According to the flow of funds accounts, the value of all three major asset classes on household balance sheets – real estate, equities and non-equity financial assets – fell below year-ago levels in the June quarter of 2008 (Chart 11). This is the first instance in the history of this report – going back to the 1950s – that all asset classes have been in simultaneous retreat. It is also the first ever recorded decline in the value of the housing stock.¹³ In an environment of rising unemployment, these factors are placing unprecedented stress on household balance sheets.

13 This concept of housing wealth precludes a decline in all but the most diabolical of circumstances. Even if measured house prices are falling, increases in the dwelling stock usually allow aggregate housing wealth to grow.

Chart 11: US household assets are declining in value^(a)



(a) Shaded bars represent US recessions, as defined by the US National Bureau of Economic Research. Note that the recent pronouncement is included, even though the full period of contraction is yet to be defined.

Source: Factset, Westpac, NBER, US Flow of Funds account.

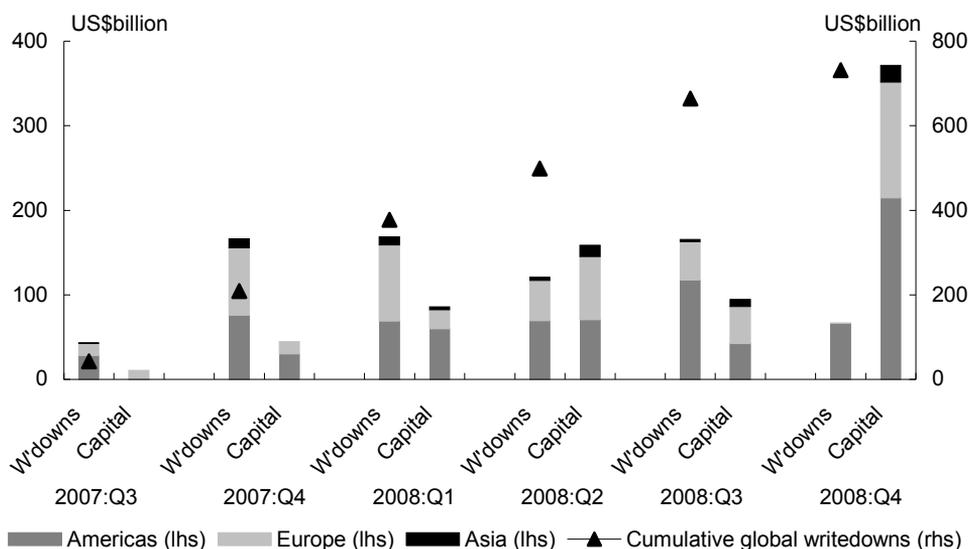
With household balance sheets stretched to extremes, delinquency rates on prime loans seem certain to rise above current levels. This is generally expected to result in a further round of provisioning, writedowns on asset valuations and, predictably, another round of deleveraging. The propagation of writedowns from sub-prime to prime loans is the second phase in the pernicious process of a financial system-led downturn. The delinquency rate of 2007-vintage prime mortgages has risen notably in comparison to the 2006 vintage.

It is difficult to avoid the conclusion that the US economy will contract in the coming year. Elsewhere, while the situation is not as extreme, it is likely that the majority of countries in the OECD will experience negative domestic demand growth in at least one quarter in the period ahead. Almost half of the 30 member nations have already done so, including all of the G7.

The month of October saw an apparently synchronised decline in global business activity. Survey respondents reported sharp rises in the difficulty of accessing credit to the extent that securing letters of credit for international trade was not assured; consumer and business sentiment took a further adverse turn and real activity indicators, leading, lagging and coincident, were unambiguously weak. Commodity prices and freight indices fell precipitately. Financial market volatility measures spiked to spectacular levels. Reflecting this dramatic confluence of events, the IMF downgraded its world growth forecast for 2009 before it was a month old.

The concerted transmission of financial distress to the real economy comes at a time when the writedowns emanating directly from sub-prime related securities are slowing and public capital injections have reached a significant scale. The balance between writedowns and capital raisings is depicted in Chart 12. The current sources of balance sheet deterioration are more varied, including bringing special investment vehicles back onto balance sheets at impaired values, exposures to failed firms, valuation impacts on prime loans, rising costs of capital and higher provisioning.

Chart 12: Global bank writedowns and capital raised^{(a)(b)}



(a) Note, a significant proportion of the capital raised in the fourth quarter of 2008 comprises injections of capital from public authorities.

(b) Data for fourth quarter are as at 1 December 2008.

Source: IMF and Bloomberg LP.

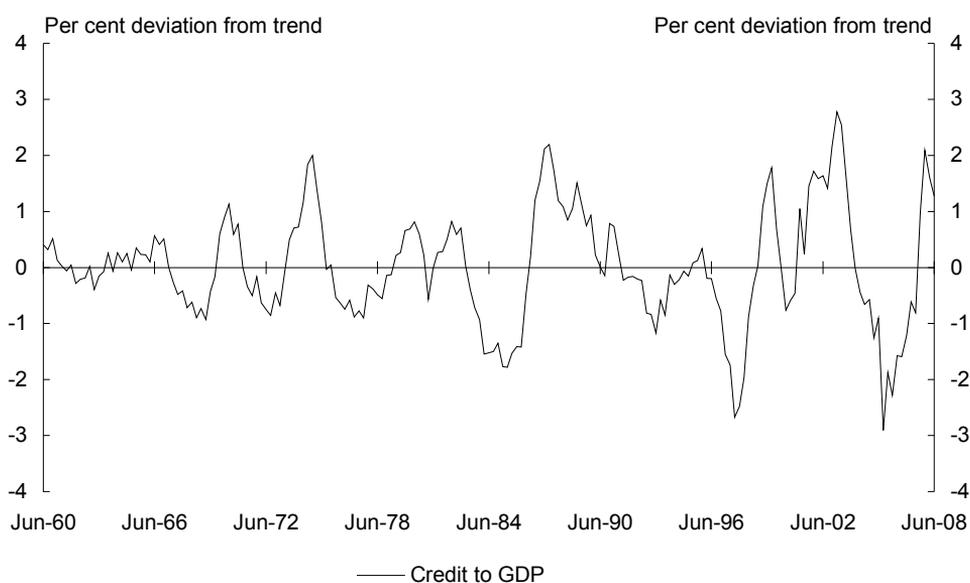
Providing some offset to this tide of depressing news is the fiscal and monetary policy responses that have emerged over the course of the crisis. Importantly, governments have been relatively quick to realise that the recapitalisation of the banking system is integral to any solution. As argued above, deleveraging is one possible response to an adverse change in the CAR of a financial firm. A relatively benign alternative is the raising of fresh capital. In practice financial firms undertake a combination of measures.

Recapitalisation is crucial to not only maintain prudential ratios: it is central to the dynamics of recovery. If a financial system is short of capital, balance sheets must contract. But to fund the recovery, and act as the transmission mechanism for monetary policy easing, they must expand their balance sheets. A deleveraging financial system may be willing to pass on cuts in policy rates only in conjunction with a quantum adjustment in the amount of new business they write. Therefore it is

important that policy makers monitor both price and non-price elements of pass through. In the extreme situation, where neither price nor lending standards are eased in response to policy changes, monetary policy can be rendered impotent (see Box 3). In the US and the UK, monetary easing has been relatively ineffective in bringing down the lending rates faced by households and businesses and loan standards are becoming increasingly restrictive (Chart 6).

Although there are some aspects of this financial crisis that are without precedent, historical experience suggests that the current deleveraging cycle could continue for some time. As a crude approximation of US leverage cycles, Chart 13 below plots the deviation from trend of the ratio of US bank credit outstanding to nominal GDP.

Chart 13: Leverage cycles of the US financial system^(a)



(a) Series is the ratio of bank assets to nominal GDP, relative to its trend rate, calculated using a Hodrick Prescott (HP) filter. End point problems with this filtering technique infer that the results for the current cycle should be treated with some caution.

Source: Thomson Reuters, US Flow of Funds Accounts.

US leverage cycles have clearly become more pronounced over the past two decades. Chart 13 would also seem to suggest that the current deleveraging cycle to date has been mild relative to previous episodes, and that the cycle may only be in its early stages. However, much of the leverage that built up in the years prior to this episode occurred off balance sheet and outside of the regulated banking system. As such, it is very difficult to gauge the degree to which leverage built up over the preceding years and the degree to which leverage will need to be, and has already been, unwound. An effort to benchmark the current situation against a historical sample of bank-centred crises is presented in Box 4.

Producing a precise estimate of the potential scale and duration of the required deleveraging process is a seemingly impossible task. However, it is possible to define a range of outcomes under differing assumption sets and methodologies, to inform an educated discussion on the matter by circumscribing a frontier of possibilities. Two such exercises deserve attention.

The IMF (2008b chapter 1) has estimated that financial sector mark-to-market losses on US-originated and -securitised debt instruments will rise to US\$1.4 trillion. At the time of publication, public writedowns were only 55 per cent of this estimate. Taking these estimates as a starting point and using models driven by macroeconomic fundamentals (taken from the forecasts finalised in October), survey information on bank lending standards, known tax changes and a set of exogenous assumptions on desired future CARs, capital raising, asset sales and maturities and dividend payouts, the IMF estimates that the deleveraging process could continue into the next decade. Under this scenario, world GDP growth would remain below its 2003 to 2007 average of 4.7 per cent until 2011. Of course, there is the problem of circularity with this process, and we know that the macroeconomic baseline has since been revised lower.

The OECD (Blundell-Wignall 2008) focuses on ultimate losses (rather than writedowns) while rejecting a mark-to-market based framework for estimating them. This methodology requires an additional set of assumptions on ultimate cash recovery rates. The OECD's fundamental model is admirably parsimonious and free of autoregressive componentry. Even so, as is to be expected, the final results on deleveraging and prospects for recapitalising from within are extremely sensitive to the exogeneous assumptions. The range of outcomes presented in the OECD study are wide, both in terms of time and scale, reflecting the difficulties of reaching strong conclusions when conducting such complex forward-looking exercises.

Both of these exercises are informative and valuable. There is no reason to elevate one over the other. It is sufficient to say that the research indicates that it is most unlikely that a short-term resolution or 'circuit breaker' will emerge from the private sphere to cleanse financial system balance sheets, calm asset markets and restore risk appetite.

With that as a fundamental working assumption, it follows that the 2009 global downturn will certainly be more protracted than the 2001 experience and will possibly exceed the duration of the 1991 global recession. The Business Cycle Dating Committee of the National Bureau of Economic Research (2008) recently determined that the US economy hit a cycle peak in December of 2007 and has been in recession since. While the committee is yet to define a trough, given that activity has been in an accelerated

decline in the second half of 2008, the duration of the current contraction should comfortably exceed the post-1945 average of ten months.¹⁴

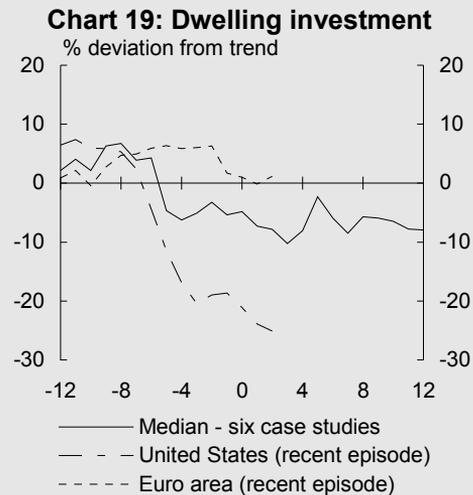
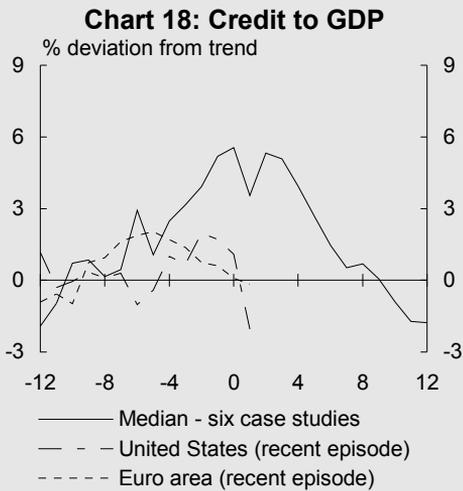
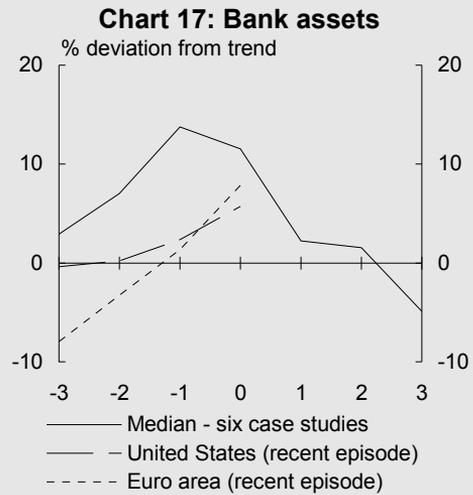
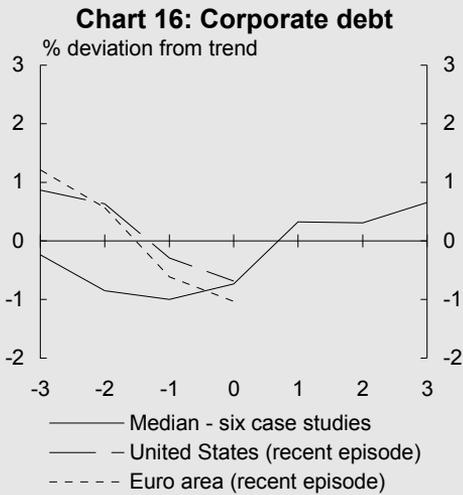
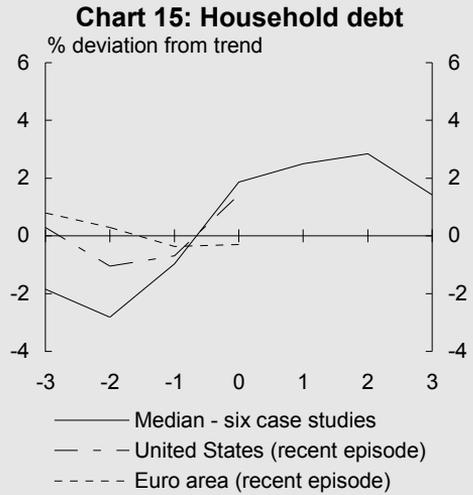
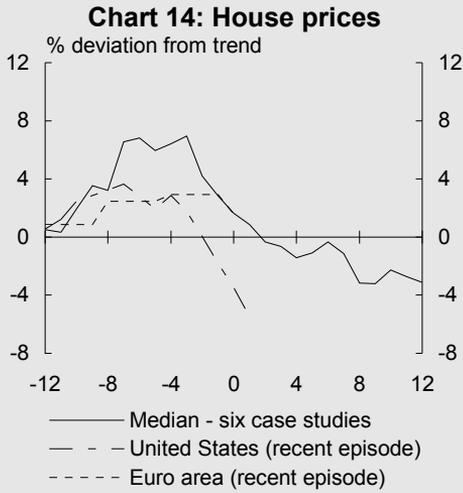
Box 4: Bank-centred financial crises — now and in history

A recent IMF study (2008c chapter 4) consolidated information from six relatively recent historical episodes where a bank-centred financial crisis drove a major downturn in the real economy. The episodes come from Japan (see Box 3), the UK, the US (its savings and loan crisis) and three Scandinavian countries. The median of these episodes is mapped against the current experience of the US and the EU, with the zero year or quarter on the horizontal axes marking the onset of financial stress. A number of observations spring from the comparative analysis.

1. The US housing market stands out as particularly weak so early in the downturn. In the case studies, house prices did not begin to fall below trend until some quarters after the onset of financial stress, whereas prices are already significantly below trend in the US. As for dwelling investment, the US experience looks extraordinarily brutal.
2. The expansion of bank assets relative to trend was greater in the case studies. However, the decline in the credit-to-GDP ratio is already well advanced in the US. The cautionary note here is that the expansion of bank assets will not capture the full extent of leverage across the financial system in the current episode, with the growth of unregulated financial firms such as hedge funds playing a larger role.
3. Non-financial corporate balance sheets in the US are reasonably lean, while household balance sheets are in a very similar position to the case studies (as measured by household debt relative to trend). This point is noteworthy as historical episodes of financial stress that do not evolve into downturns have all been characterised by resilient consumption expenditures.
4. The Euro area is in a significantly less extended position than the US entering the prospective deleveraging phase.

14 This average is calculated by the NBER and is available from www.nber.org.

The macroeconomic implications of financial 'deleveraging'



Source: IMF.

Concluding remarks

Financial deleveraging is inimical to the health of the world economy. This article has examined the theoretical and practical mechanics of deleveraging, drawn on relevant aspects of the historical record and placed the current episode in context. The broad conclusion is that the first stage of the deleveraging process, which is driven by the decline in both asset values and lending to borrowers at the riskier end of the spectrum, is currently well advanced. The second phase, where the decline in credit availability engendered by the initial phase hurts the value of more prosaic asset classes, and less marginal borrowers, is significantly less advanced. This dynamic will place significant stress on the world economy in 2009.

On a more optimistic note, policy makers are well aware that the magnitude of the challenge presented demands a forthright global public policy response. The mistakes of previous cycles, such as delaying bank recapitalisation, have been duly noted in word and deed. Furthermore, the global fiscal and monetary policy responses provide needed insurance against downside risks to growth next year, and lay the foundation for recovery in the period beyond.

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Household saving in Australia

Susie Thorne and Jill Cropp¹

After falling steadily from the mid-1970s, the share of disposable income that Australian households devote to saving has picked up in recent years. This paper explores a number of possible explanations for this development and their implications for household saving into the future.

Rapid income growth associated with the terms of trade boom is proposed as one of the key factors contributing to the rise in the household saving ratio over the past few years. Other factors which may also have contributed include: a moderation in capital gains growth; an increase in households' perception of risk around high leveraging; changes to Australia's tax mix in the early part of this decade; and a sustained increase in real interest rates until very recently.

In the future, the household saving ratio is expected to be influenced by conflicting forces. On the one hand, anticipated falls in Australia's terms of trade and a rapid easing of monetary policy are likely to exert downward pressure on the household saving ratio. On the other hand, heightened uncertainty surrounding the economic outlook and global financial markets can be expected to encourage saving.

1 The authors are from Domestic Economy Division, the Australian Treasury. This article has benefited from comments and suggestions provided by Jason Allford, Matt Crooke, Alicia Da Costa, Phil Garton, David Gruen and Jim Thomson. The views in this article are those of the authors and not necessarily those of the Australian Treasury.

Introduction

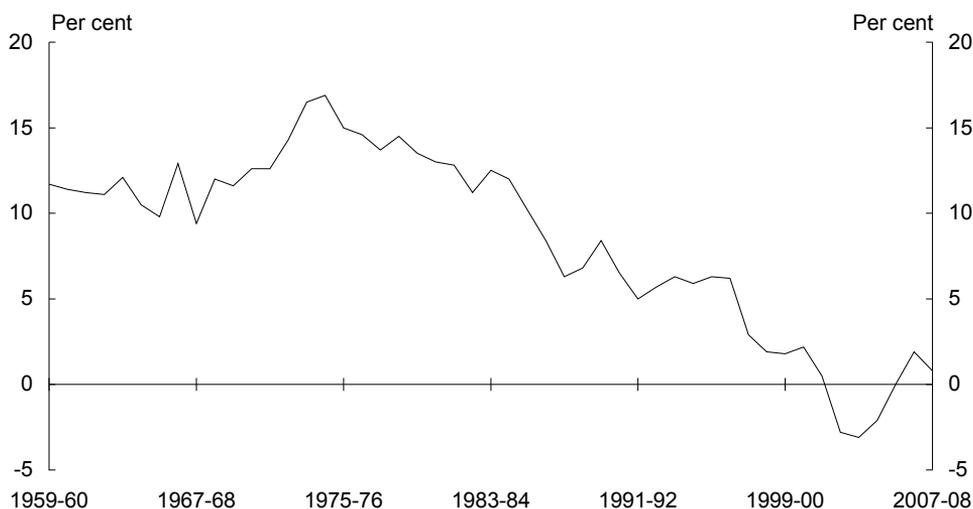
For around 30 years from the mid-1970s, household saving in Australia declined steadily as a share of disposable income, eventually becoming negative around the early part of this decade. However, over the past few years, we have witnessed a reversal in this trend, with the fraction of households' income devoted to saving rising (Chart 1).

The reasons behind the trend decline have been the subject of considerable research and are well documented, if not universally agreed upon (see for instance Hiebert, 2006; Edey and Gower, 2000). By contrast, there has been little exploration of what has been driving the rise in Australia's saving ratio in more recent years.

The first section of this paper briefly reviews the concept of the household saving ratio, the reasons behind its 30 year decline and the economic theory of saving. The second section explores a number of possible explanations for the turnaround over the past few years and their implications for the future of household saving in Australia.

We consider the most compelling of these arguments to be that households have reacted to what they perceive as a transitory boost to their incomes from the terms of trade boom, by putting aside a higher share of this additional income for future consumption. Nonetheless, a number of other factors appear to have also contributed to the rise in the household saving ratio in Australia over the past few years.

Chart 1: Household saving ratio



Source: Australian Bureau of Statistics (ABS), *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008.

Box 1: What is household saving?

The Australian Bureau of Statistics defines household saving as the part of current after-tax income that is not directly used up or transferred as part of household consumption.

It is calculated as a residual item, by deducting household final consumption expenditure from household disposable income. As these two aggregates are large, and the difference between them is small, household saving is hard to measure accurately and is prone to significant revisions.

The published household saving ratio is calculated net of depreciation, that is:

$$\text{Saving ratio} = \frac{(\text{Gross disposable income} - \text{Depreciation}) - \text{Consumption}}{(\text{Gross disposable income} - \text{Depreciation})}$$

The household sector in Australia's National Accounts includes not only households, but also unincorporated enterprises (including family farms) and non-profit institutions serving households.

While earnings on capital (such as dividends) are counted as income from a National Accounts perspective, capital gains and losses are not. The Australian Bureau of Statistics publishes an analytical measure of household saving in the Annual System of National Accounts which includes other changes in real net wealth.

The decline of household saving in Australia

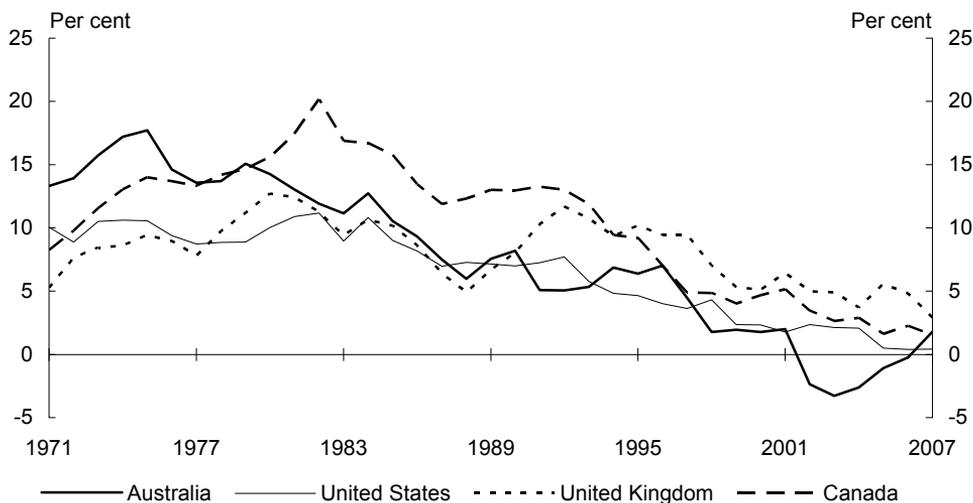
Household saving in Australia declined from a peak of 18.0 per cent of household gross disposable income (less depreciation) in the March quarter 1975 to a trough of -4.4 per cent in the June quarter 2002.² Australia is not alone in having experienced persistent falls in household saving over this period; the same trend has been witnessed in a number of countries with similar institutional features, in particular the United States, the United Kingdom and Canada (Chart 2).

Literature surrounding this issue tends to attribute much of the decline in the household saving ratio to strong capital gains over the period (see for instance Hiebert, 2006). Real net wealth per capita has approximately doubled over the past 15 years, mostly due to growth in the value of housing and equity assets. Since capital gains tend to stimulate consumption, but are not counted as income from a National

2 Certain technical modifications can be made to the saving ratio to account for measurement and classification problems. These have the effect of flattening, but not eliminating, the decline in household saving from the mid-1970s. For a comprehensive summary of these modifications, see Treasury, 1999 and Edey and Gower, 2000.

Accounts perspective, this has put downward pressure on the saving ratio. Compounding this, asset price growth increases capital gains tax, reducing disposable income and thus the household saving ratio.

Chart 2: International comparison of household saving rates
(Per cent of household disposable income)



Note: Saving rates for all countries except the United Kingdom are net of depreciation.
Source: OECD, Economic Outlook Database.

Another key explanation for the decline in the household saving ratio since the 1970s relates to the rapid financial deregulation and innovation which took place over this period. Economic theory suggests that individuals tend to prefer a smooth consumption profile over their lifetime (Box 2), and the extent to which they are able to achieve this depends crucially on their ability to borrow and save. Financial deregulation and innovation have afforded households easier access to credit, enabling more efficient consumption smoothing and a reduction in the rate of saving out of income.

Hiebert (2006) notes that a relaxation of borrowing constraints will tend to reduce aggregate saving, although the impact will be transitory and may be offset by increased opportunities for, and returns to, saving induced by financial system developments.

A statistical explanation for the decline in household saving since the 1970s relates to the increased corporatisation of unincorporated enterprises. As these enterprises have increasingly moved into the corporate sector, some of the saving that previously accrued to the household sector is now measured as corporate saving instead (Treasury 1999).

Box 2: What motivates people to save?

There are a number of reasons why households choose to save. One of the most well-known theoretical frameworks for consumption and saving is the Permanent Income Hypothesis (Friedman 1957). This hypothesis contends that consumption is determined not by current income, but by permanent income, a measure of income over a longer period of time than just a year or two.

A related theory, the Life Cycle Hypothesis (Modigliani and Brumberg 1954), emphasises the relationship between income, consumption and wealth at each stage of life. It posits that individuals tend to dissave when young, save and pay off debt in peak earning years around middle age and draw down on accumulated saving in retirement.

According to these theories, individuals seek to maintain a smooth consumption profile over their lifetime. Hence, they increase saving in times of strong income growth, in particular if this income is unexpected or is perceived to be temporary, and draw down on accumulated savings when times are lean.

Another reason why individuals might save is the precautionary motive. This theory suggests that individuals put money aside as a buffer against unforeseen events.

Households may also save due to liquidity constraints. In the presence of credit restrictions, individuals must save in order to purchase large expenditure items, such as consumer durables or vacations.

Finally, households may choose to save in order to leave assets behind to heirs. This is known, unsurprisingly, as the bequest motive.

What has caused the turnaround in the saving ratio?

Over the past few years, we have witnessed a reversal of the trend decline in Australia's household saving ratio. This development has not been apparent in the countries to which we are most directly comparable (Chart 2), although it should be borne in mind that Australia's household saving ratio fell more rapidly and further than its comparators (becoming negative in the early part of this decade, which indicates that spending was outstripping disposable income not including capital gains).

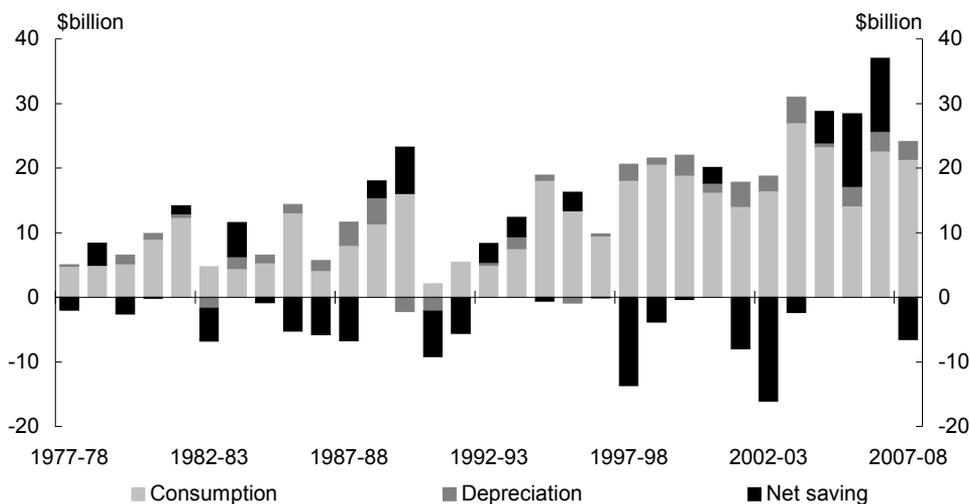
The following sections explore several possible explanations for the turnaround in the saving ratio.

Strong income growth flowing from the terms of trade

The turnaround in Australia’s household saving ratio has occurred at a time of particularly strong growth in disposable incomes, largely driven by the terms of trade boom. Australia’s terms of trade increased by around 10 per cent per annum over the five years to the September quarter 2008, significantly higher than average annual growth over the previous five years (around 2 per cent). Consistent with this, household gross disposable income grew by an average of around 5 per cent per annum over the past five years in real terms (accounting for inflation), considerably higher than the long-term average of around 3 per cent per annum.

While households have taken advantage of strength in incomes to lift consumption, growth in consumption has not been commensurate with growth in incomes. This is reflected in an increase in the share of disposable income being devoted to saving over the past few years (though not in 2007-08) (Chart 3).

Chart 3: Uses of real gross disposable income
(Change in financial year)

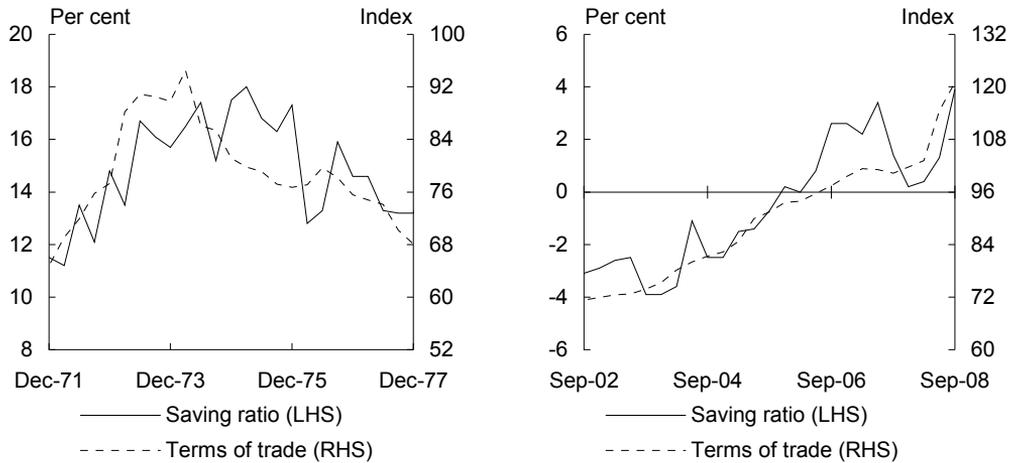


Source: ABS, *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008.

This pattern of behaviour is not unprecedented; for instance, during the 1970s terms of trade boom, the household saving ratio rose and subsequently fell concurrently with the terms of trade (Chart 4).

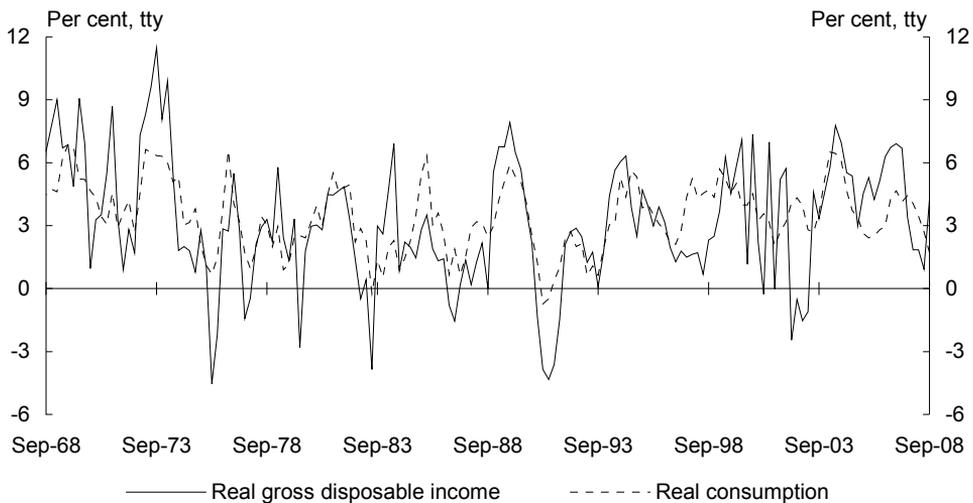
One possible explanation for this behaviour is that the rapid income growth flowing from the terms of trade boom is perceived as temporary and, consistent with the permanent income and life cycle hypotheses (Box 2), households have increased saving in order to facilitate a smooth consumption profile over time. Consistent with this, consumption growth is generally less variable than income growth (Chart 5).

Chart 4: The household saving ratio and the terms of trade – 1970s and today



Source: ABS, *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008.

Chart 5: Growth in real gross disposable income and real consumption



Source: ABS, *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008.

Global spot prices for Australia's major non-rural commodity exports have fallen significantly in recent months, with iron ore prices down more than 60 per cent and thermal coal prices down around 50 per cent since July 2008 (in US dollar terms). Despite this, Australia's terms of trade are expected to remain strong in 2008-09, reflecting high contract prices which are locked in until the end of March 2009 (Treasury 2008). This could be expected to provide support to incomes and thereby household saving in the short term. However beyond that, slower global growth is expected to trigger sizeable falls in Australia's terms of trade (Treasury 2008). The

consequent slowing in income growth can be expected to reduce some of the additional saving that has been undertaken as a reaction to temporarily higher incomes.

Modifications to the taxation mix

The structure of a country's taxation system impacts on household saving by changing the price of present consumption vis-à-vis future consumption. There may be reason to believe that the alteration of the tax mix brought about by the introduction of a consumption tax (and associated reductions in other taxes in July 2000) has contributed to the rise in household saving over the past few years.

Intertemporal consumption theory suggests that compensating individuals for the imposition of a consumption tax with reductions in income taxes will tend to encourage an increase in saving. This is because income taxes distort intertemporal consumption choices by decreasing the post-tax interest rate, thus taxing future consumption more heavily than current consumption. Conversely, consumption taxes are intertemporally neutral. Hence, a shift from income taxes to consumption taxes will increase the opportunity cost of consuming today, encouraging households to substitute away from consumption toward saving.

Another way of looking at this is to consider that a utility-maximising individual will choose to consume at the point where their rate of time preference (preference for current over future consumption) is equal to the real interest rate. By effectively increasing the real interest rate, an alteration of the tax mix in favour of consumption taxes will create a gap between the real interest rate and an individual's rate of time preference, encouraging that individual to increase saving at the expense of current consumption. An important caveat to this is that if households are liquidity constrained, they are less likely to be able to respond to a change in the relative return on saving, reducing the potential impact of a change in the tax mix (Freebairn 1991).

Based on saving and tax revenue data from OECD countries over a period of 25 years, Tanzi and Zee (1998) provide empirical evidence that income taxes negatively affect the household saving rate much more than consumption taxes. However, other empirical estimates suggest that the impact on saving of switching from an income tax to a consumption tax is likely to be small (for instance Freebairn 1991). The lengthy delay between the alteration of Australia's tax mix and the point at which the saving ratio began to turn around would tend to support the theory that the change to the tax mix played only a minor role in increasing the household saving ratio.

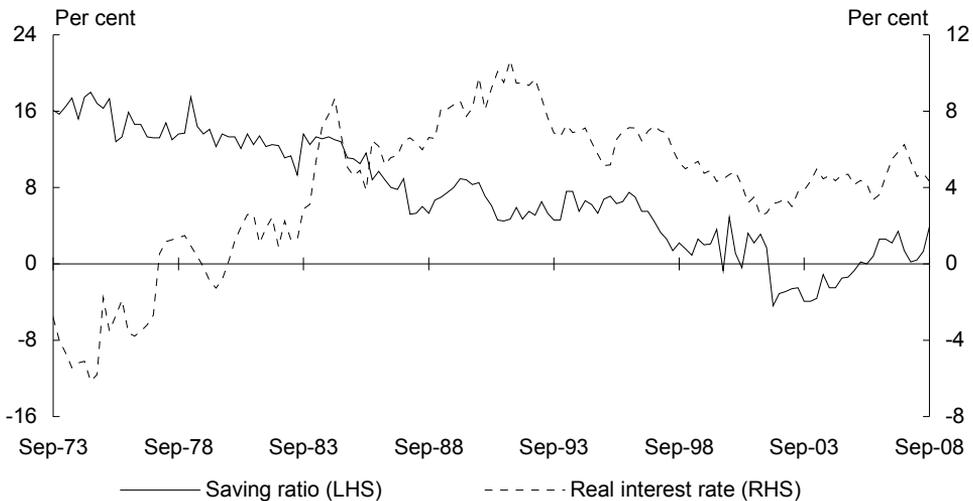
Rising real interest rates

Recent increases in the household saving ratio have occurred against the backdrop of upward trending real interest rates. The impact of changes in the real interest rate

depends on the direction and relative magnitudes of: the *substitution effect*, which alters the price of current and future consumption; the *income effect*, which changes the level of income; and the *wealth effect*, which affects the value of capital holdings. While the substitution and wealth effects unambiguously encourage an increase in saving when interest rates rise, the income effect will depend on whether the individual in question is a net lender or a net borrower.

Whether the relationship between the real interest rate and the saving ratio is positive or negative is unresolved in the empirical literature. Ouliaris (1981) finds a negative relationship between post-tax real interest rates and the saving ratio. Chart 6 indicates that there does appear to be a negative relationship between the saving ratio and real interest rates prior to the late 1980s.

Chart 6: Household saving ratio and the real interest rate



Note: The interest rate is the standard variable mortgage rate. It has been deflated by a measure of headline inflation which has been adjusted to exclude the effects of the introduction of The New Tax System.

Source: ABS, *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008; ABS *Consumer Price Index*, cat. no. 6401.0, Canberra, 2008; and Reserve Bank of Australia.

However, more recent empirical results are either ambiguous or find a weak positive relationship between interest rates and the saving ratio (Callen and Thimann 1997; Edey and Britten-Jones 1990; Elmendorf 1996). Chart 6 shows that these two variables have tended to move in the same direction as one another since the late 1980s. It is plausible that the relationship between interest rates and the saving ratio should have changed around this time as, among other things, the 1990s was a decade characterised by rapid financial deregulation and innovation, substantial declines in inflation and a switch in the financial position of households from net lenders to net borrowers.

In response to turmoil on international financial markets, and a deterioration in the global economic outlook, the Reserve Bank of Australia has cut the official cash rate by

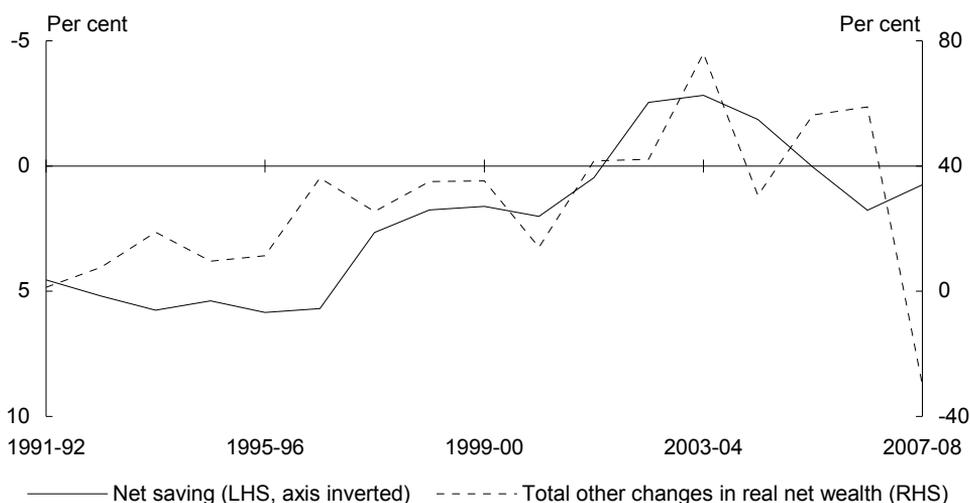
300 basis points since the beginning of September 2008. If a weak positive relationship does indeed exist between interest rates and the household saving ratio, then recent large interest rate cuts could be expected to be accompanied by some reduction in the household saving ratio. However, this is likely to be small compared to the effect of an economic slowdown, which will also tend to reduce saving.

Capital gains

As discussed in the first section of this paper, one of the most oft-cited explanations for the decline in household saving since the 1970s is that increasing capital gains over the period acted as a substitute for traditional saving. In seeking to explain the turnaround in the saving ratio in recent years, it is pertinent to assess whether the inverse is true over the more recent period. Girouard et al (2006) note, with reference to the United States, that the possibility of cooling asset markets and higher borrowing costs may tend to raise the saving ratio.

In Australia, the period since the saving ratio began to rise has been characterised by some moderation in capital gains, particularly when compared to the strong growth witnessed in the previous years (Chart 7). It could be argued that, by slowing growth in the net worth of households, moderating asset price growth has contributed to the rise in household saving in recent years. However, the slowdown in capital gains has not been remarkable (abstracting from the past year) and it is therefore difficult to draw firm conclusions as to the import of this explanation.

Chart 7: Household net saving and capital gains
(Per cent of household gross disposable income)



Note: 'Total other changes in real net wealth' includes real holding gains and losses, net capital transfers and other changes in volume.

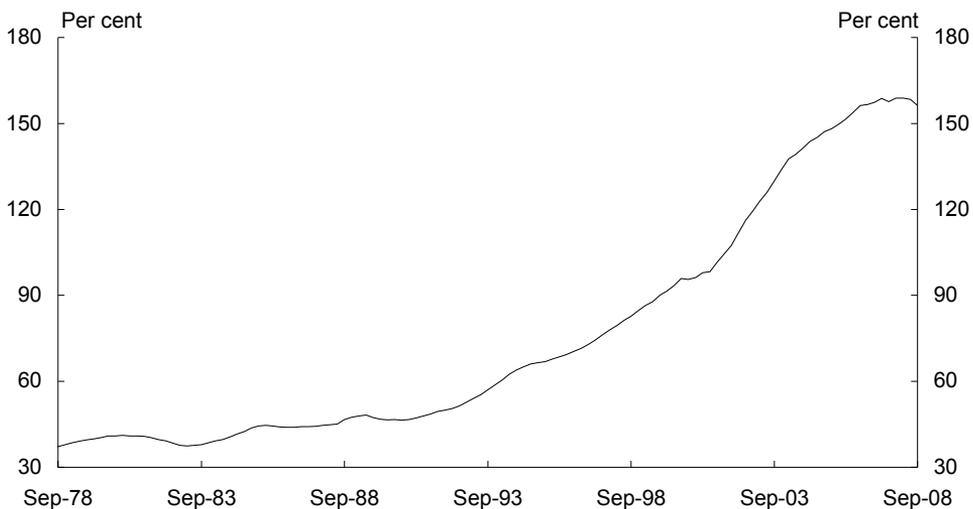
Source: ABS, *Australian System of National Accounts*, cat. no. 5204.0, Canberra, 2008 and ABS, *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008.

Household wealth has dropped significantly over the course of 2008, as deteriorating global economic conditions and large falls in international stock markets have flowed through to Australian households. The ASX 200 is down by more than 40 per cent since its peak in late 2007 and established house prices have fallen in the June and September quarters 2008. If capital losses do in fact encourage households to increase the share of income that they devote to saving, then we could expect this to provide support to the household saving ratio in the near future. This does not appear to have been the case in 2007-08 (Chart 7). However, the global financial crisis has caused sudden changes in structural relationships, meaning that data may not yet fully reflect the impact of these changes (ABS, 2008b).

Precautionary saving

Another possible explanation for the increase in saving by Australian households over the past few years relates to the precautionary motive to save. Over the past 15 years or so, Australian households have become increasingly indebted. The ratio of household debt to annual household disposable income has more than tripled since the early 1990s, to around 160 per cent (Chart 8).³

Chart 8: Household debt-to-income ratio



Source: Reserve Bank of Australia and Treasury.

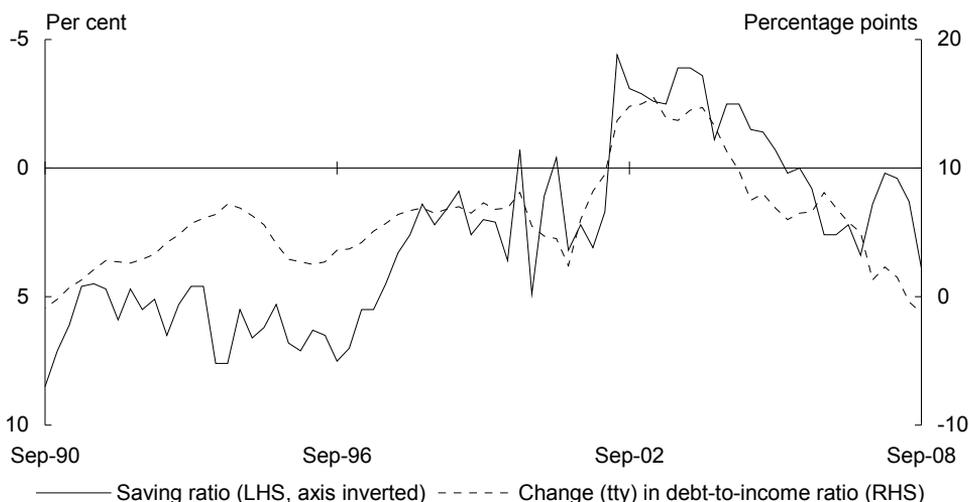
This expansion in holdings of debt has been driven by a number of factors, such as financial innovation and deregulation, declining inflation, relatively low global interest

³ The debt-to-income ratio is useful in providing a measure of household leverage; however some economists take issue with it, since it compares a stock with a flow (RBA 2003). A more appropriate measure is the household gearing ratio (debt-to-assets), which has also almost doubled since the early 1990s. The less rapid increase in the gearing ratio compared to the debt-to-income ratio reflects strong growth in asset prices over this period.

rates, growth in wealth outstripping growth in incomes and a desire by households to devote a higher share of income to housing (Stevens 2008).

This is likely to have made households more sensitive to house price and interest rate developments (Girouard et al 2006). The same could be said for Australian households' exposure to movements in the share market, since equities have increasingly been embraced as a form of investment. Given this, the increase in the saving ratio over the past few years may be reflective of households increasing precautionary saving in order to buffer against a perceived increase in risk. This can also be seen in slower growth in the debt-to-income ratio (Chart 9).

Chart 9: Saving ratio and change in the household debt-to-income ratio



Note: The debt-to-income ratio is calculated using gross disposable income for households only, before net interest payments, while gross disposable income in the (published) saving ratio includes unincorporated enterprises and interest.

Source: ABS, *Australian National Accounts*, cat. no. 5206.0, Canberra, 2008; Reserve Bank of Australia and Treasury.

Related to this, some analysts suggest that households have been going through an adjustment phase for some time and are now stabilising at a new equilibrium. The Reserve Bank of Australia Governor has hypothesised that the long period of 'gearing up' may be coming to an end and that, in future, households may consolidate their balance sheets and align spending more closely with incomes (Stevens, 2008). Indeed, over the past few years there has been a marked slowdown in the rate at which households have been accumulating debt relative to income, with the ratio of debt to household disposable income rising by an estimated 15 percentage points over the past four years, compared to an increase of around 45 percentage points in the previous four years (Chart 8).

Recent turmoil on international financial markets, combined with a deterioration in the outlook for global and domestic economic growth, has heightened uncertainty for Australian households. This is likely to encourage households to increase precautionary saving. Combined with expected weaker income growth, this would tend to increase the household saving ratio.

Conclusion

This paper has considered a number of theories regarding what may have been driving the rise in Australia's household saving ratio over recent years. Of course, there may be other factors not explored here which have played a role in the turnaround in the household saving ratio. Of particular interest for further research are demographic issues such as the distribution of income and wealth across age cohorts, immigration and the role of superannuation.

It seems likely that several of the factors explored in this paper have contributed to the recent rise in the saving ratio. However, the factor which seems to most adequately explain the rise is that households perceive strength in incomes from the terms of trade boom to be transitory and, consistent with what economic theory would predict, have increased saving over the period with a view to better smoothing consumption over the life cycle.

In the future, we expect the saving ratio to be subject to conflicting forces.

An anticipated weakening in Australia's terms of trade is likely to curtail that part of saving which has been spurred by temporarily higher incomes. Recent monetary policy easing would tend to reinforce this effect if the positive relationship between real interest rates and the household saving ratio which appears to have existed over the past twenty years continues to hold.

However, heightened uncertainty surrounding international financial market turmoil and the economic outlook could be expected to encourage households to increase precautionary saving. Similarly, falls in wealth resulting from the global equity market crisis and weaker house prices may encourage households (which almost certainly consider capital gains as a form of implicit saving) to increase traditional forms of saving.

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Harnessing the demand side: Australian consumer policy

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This paper provides a brief overview of the history of consumer policy in Australia, in order to analyse the economic and other policy influences on the development of Australian consumer laws. The historical narrative illustrates the significance of economic principles to national and state consumer regulations. The paper also discusses the movement of consumer policy through various national policy institutions, and the emergence of consumer policy as an economic policy issue. Finally, the paper turns to the current consumer policy landscape, including opportunities for reform, and discusses the appropriateness of Treasury's wellbeing framework for analysing consumer policy issues in an economic context, in a way which recognises the ultimate goal of improving the wellbeing of consumers.

1 The authors are from Competition and Consumer Policy Division, the Australian Treasury. This article has benefited from comments and suggestions provided by Jim Murphy, David Martine, James Chisholm, and the Consumer Policy Framework Unit. The views in this article are those of the authors and not necessarily those of the Australian Treasury.

Introduction

In May 2008, the Productivity Commission published a comprehensive review of Australia's consumer policy framework. In conducting its review, the Commission applied an economic framework to considering whether current and alternative consumer policy settings meet the objective of improving the wellbeing of the community as a whole. The Commission's report was positively received by both consumer and business representatives, and the subsequent debate has not been about whether the Commission applied the right analysis but on how its recommendations should be implemented.

For much of Australia's history the economic implications of consumer policy have played a subsidiary role, despite the manifest importance of consumers in markets. In 1998, consumer policy became part of the Treasurer's portfolio, along with competition policy, and formed part of an economic policy function that was concerned with improving the functioning of Australia's markets. Since then, some have questioned the appropriateness of locating consumer affairs within an economic portfolio.²

This paper examines the emergence of consumer policy as a national economic issue, in which consumer policy uses appropriate regulation to empower consumers to drive competition and make Australian product and service markets function well, to benefit consumers collectively and individually. In doing this, the paper looks at the development of Australian consumer laws from the earliest years of European settlement to the national approach represented by the *Trade Practices Act 1974* (TPA). It also looks at factors influencing the development of Australia's consumer laws, including conditions in the colonial economy, developments in the law in Britain and elsewhere, and the emergence of the consumer movement.

The paper then considers the shaping of Australia's consumer policy framework as it stands today, by charting the movement of consumer policy within government and the emergence of consumer policy as an economic policy issue. It highlights current reform opportunities in the world of consumer policy, and identifies the economic underpinnings of the policy analysis currently driving reform. The paper concludes by discussing how consumer policy fits within Treasury's broader policy framework, and how well-functioning markets operate to the benefit of consumers.

The evolution of Australia's consumer laws

Consumer laws have existed since the beginnings of settled human civilisation. One of the earliest and commonly cited examples is the Code of the Babylonian ruler

2 See, for example, Wood (2000), p 42; Lenders (2004), p 5.

Hammurabi, written almost four thousand years ago, which sets out a series of laws regulating consumer transactions. Hammurabi's 108th law, for example, protects tavern-goers from paying too much for their drinks:

If the mistress of a beer-shop has not received corn as the price of beer or has demanded silver on an excessive scale, and has made the measure of beer less than the measure of corn, that beer-seller shall be prosecuted and drowned.³

While attitudes to the appropriate punishments for consumer law breaches may have changed, the concern of those laws to secure fair and efficient outcomes for consumers and ensure the harmonious operation of markets remains.

Consumer regulation as a blunt instrument

The early development of Australian consumer laws reflects similar motivations to those apparent in Hammurabi's Code, including ensuring fair weights, basic quality standards and fair prices. The approach taken by early Australian governments was often prescriptive in nature, and tended to focus on short-term concepts of fairness that did not take into account the longer term impacts on economic efficiency.

Regulation of markets in an infant colony necessarily involved meeting challenges rarely encountered by modern policy makers. Extreme scarcity, such as that faced by early colonial New South Wales, invited exploitation on a grand scale at the hands of the officers of the Rum Corps, who had obtained lucrative rights to import goods, process produce and hold agricultural land. Though such intervention would be controversial today, the obvious response to this exploitation in a tiny, developing market was to control prices, regulate quality and license suppliers, especially with respect to staples like bread and liquor.

An example of this dual concern with protecting consumers and developing a well-functioning market is the regulation of bread in early Australia. In 1797 NSW Governor John Hunter commissioned a review of the colony's bread-making industry. In response to this, Hunter's successor, Captain Philip Gidley King, regulated the composition of bread in 1800, with penalties of up to £5 applying to bakers breaching the regulations, and by 1804 bakers were licensed. Bread prices and quantities were directly regulated by 1825, and in 1835 legislation was enacted to regulate the production and sale of bread and to prevent adulteration.⁴ The comprehensive nature of bread regulation meant that it became a standardised product, with regulation in a

³ Johns (1904), p 52.

⁴ See Kingston (1994), pp 102-3; Miley (1987), p 2.

similar form persisting until the end of the twentieth century.⁵ The effect of regulation initially intended to protect consumer interests was to minimise product variation and severely limit consumer choice.

Developing a more sophisticated approach to market regulation

The regulation of bread in colonial New South Wales shows the many, and often conflicting, motivations for governments to intervene in consumer transactions in ways that may now be regarded as perverse and unduly intrusive. This reflects the changing emphasis of consumer regulation on social outcomes, legal rights and economic development. While it is easy to dismiss such regulation as paternalist and unsophisticated, this ignores the other motivations for governments to regulate in such a way.

Government policy and regulation in the very early years of the Australian colonies was driven by the need to secure what were seen to be the necessities of British life and commerce, in an environment not immediately suited to providing them. The first governors of New South Wales were tasked with establishing a 'bridgehead' economy, and faced serious shortages of food and other supplies from the very beginning. For several decades 'the colony remained incapable of feeding itself or of surviving without continued large-scale support from the British government'.⁶ It was a battle against often harsh local conditions which, it must have seemed, could only be won by controlling the resources arriving from Britain and elsewhere.

The motivations of government regulation of consumer transactions in early Australia can be seen as fundamentally economic. They were concerned with allowing product markets to develop that did not exploit small and vulnerable localised consumer bases through monopolistic conduct and adulteration. The economic impact of such practices had been disastrous, leading the new colony to near ruin in the 1790s and again in the early 1800s. However, government farms could produce only 'miserable quantities of food'⁷, leading early administrators to the conclusion that regulated private enterprise was a much better hope for a sustainable colony than a completely controlled economy or an unregulated one with little trade between regions.

Regulation was also intended to go beyond immediate concerns, and allow for the development of domestic self-sufficiency for basic staples and also the eventual development of export markets for Australian agricultural commodities. This was a

5 In NSW the *Bread Act 1969* continued to license bakers and regulate – to some extent – times for baking and delivering bread, until its repeal in 1996 as part of the implementation of the National Competition Policy.

6 Boot (1998), p 78.

7 *ibid.*

particular concern in Australia in contrast with the pioneer experience in North America, where climatic conditions were much more conducive to a self-sufficient agricultural sector.⁸ Australian conditions made mixed farming difficult, and the consequent specialisation in production meant that, for the needs of the colony as a whole to be met, efficient trading markets had to be developed. The British colonists were able to transfer to Australia their capacity to operate within markets having specialised their production; a capacity they were developing over the course of the Industrial Revolution.⁹

Just as producers and consumers learned about specialisation during this period, so too did governments learn what regulatory concerns arise in such circumstances. Key concerns of early Australian consumer regulation were in breaking the power of monopolist cliques and in ensuring ongoing economic viability. In doing this, the concerns of the early governors went beyond the political, to embrace the maintenance of consumer confidence, by ensuring public order and public health. This meant that laws designed with a specific political purpose also served social and economic needs. For example, in an economy where barter played a significant role in the absence of any fixed currency, ensuring the quality of tradeable goods such as wheat and rum provided compelling incentives for anti-adulteration laws.

Of course, the development of Australia's early consumer laws also took account of wider economic concerns. In the first half of the nineteenth century, colonial economies expanded and export industries developed; and these were considered 'an enterprise which would convert ... paupers into customers'.¹⁰ This was reflected in a desire to ensure better regulation of basic economic transactions. In doing this, colonial administrations had the benefit of drawing on British law and policy, which was increasingly interested in guaranteeing the effectiveness of daily transactions. For example, the Weights and Measures Act 1795 (UK) provided consumers and traders with much greater certainty about the quantity and quality of goods they were buying and selling, and NSW adopted legislation along the lines of the evolving British model in 1832.¹¹ While the standardisation of trade measurements has occurred throughout history, the 1832 Act marked a concerted attempt to give NSW consumers the confidence necessary for their effective participation in markets, both within NSW and as part of the British Empire.

8 Butlin (1994), p 108.

9 *ibid*, pp 106-9.

10 *Edinburgh Review*, January 1850, p 60, quoted in White (1981), p 32.

11 For a comprehensive history of weights and measures in Australia see Todd (2004).

Consumer regulation and the fairness of markets

While a trader dishonestly tipping his scales has always been regarded as a fraud, the attitude underlying most consumer regulation concerning supplier conduct remained, until reasonably recently, the adage of *caveat emptor*. Businesses were, in a sense, free to be unfair, and it was up to the discernment of the buyer to keep traders honest and accountable. The development of consumer regulation in Australia from the starting point of 'buyer beware' shows an increasing recognition that, as markets become more complex, the asymmetries of information between buyers and sellers increase. Efforts to standardise units of measurement are an early example of colonial governments addressing asymmetries of information. This, in turn, leads to a greater regulatory concern with the fairness of markets.

If fairness in the marketplace was a legitimate goal of government policy, perhaps the natural response of colonial governments was simply to keep unfair traders out of the market. Prohibiting undesirables from entering into various trades and professions was a way to limit less scrupulous behaviour toward consumers. Consequently, the nineteenth and early twentieth centuries saw legislation setting minimum qualifications for a wide range of trades and professions. In most cases, particularly in relation to trades, these standards were determined by governments directly, but in other fields, generally those engaged in by 'gentlemen' (like the law, medicine, accountancy, architecture, engineering and surveying), the profession was permitted to regulate itself.¹² Of course, this emphasis on broad fairness in the market had other consequences reflective of an imperfect appreciation of the economic impact of regulation, which could disadvantage consumers by stifling competition and limiting choice.

While regulation was commonly applied to aspects of consumer transactions concerning price, the quality of goods or the character of the supplier, these laws did not concern themselves with the fairness of specific consumer transactions and stopped short of specifying how a consumer contract should operate. The principle of *caveat emptor* remained true, and other than a limited range of formal requirements for certain types of contract, like those set out in the Statute of Frauds 1677, consumer contracts remained largely a matter of negotiation between consumer and supplier.

In the late nineteenth century, a concern developed in Britain to ensure that all contracts adhered to certain basic principles of fairness.¹³ This led to the Australian colonies adopting legislation along the lines of the Sale of Goods Act 1893 (UK), which

12 Wood (2000), p 32.

13 For a brief history of judicial implication of terms into contracts on the basis of fairness see Seddon and Ellinghaus (2002), pp 1102-4. The Sale of Goods Acts essentially codified a number of earlier developments in the common law governing implied terms in contracts.

allowed consumers to expect certain elements of fairness when concluding contracts with businesses. The Sale of Goods Acts implied into consumer contracts conditions, for example, that goods supplied would be of merchantable quality, that goods delivered would correspond in quality with the sample or description provided to the purchaser, and that buyers had a right to inspect goods before accepting delivery. Their influence can still be felt in the implied warranties and conditions set out in the modern *Trade Practices Act 1974*.

While principles-based regulation focusing on fairness in consumer transactions had emerged, the blunt regulatory instruments of price control, quality regulation and occupational licensing did not disappear. They developed, in many cases, an explicit social policy justification intended to protect vulnerable consumers through economy-wide interventions. They are still with us today in many sectors, in one guise or another. That said, the introduction of explicit sale of goods legislation marked a shift from regulation focused on the identities of the parties to a contract or the subject matter of the contract, to a new emphasis on the contract itself and the process by which it was agreed. In this respect, regulation had found a new way to ensure consumers got what they paid for, without the need for explicit control over the specifics of business conduct. Regulation could offer consumers protection from unscrupulous business activities while preserving their freedom of choice, without the need for a huge number of specific interventions in markets.

A demanding demand-side: the emergence of the consumer movement

The development of Australian consumer law until the middle of the twentieth century occurred in the absence of any coherent or conscious advocacy of the consumer interest. Reforms were conditioned by external political considerations, such as breaking the power of specific vested interests, or a benign concern with ensuring that the form of consumer transactions met a specific standard. By the 1950s things changed, in keeping with the economic phenomenon of consumerism, driven by increases in the volume of world trade and the onset of cheap manufacturing. This led to a growing movement of consumers aware of their emerging rights, eager to see those rights extended, and ever vigilant of the challenges — physical and financial — facing them in a rapidly changing market.

Domestic concerns and consumer empowerment

The Australian 'consumer movement', as popularly understood, has its origins in various women's and housewives' associations formed in the 1900s. Australian women won the vote federally in 1902, and the Housewives Association of New South Wales, for example, encouraged them to use their right to effect positive changes for households as consumers. The goals of the Association included bringing

the producer and consumer closer together, so that the full food-value will be in the goods, and the price charged reasonable ... we believe the woman has the power to find the solution as far as her own home is concerned, by using her power as an intelligent citizen at voting time and demanding these reforms.¹⁴

These associations were concerned primarily with issues affecting their members in the day-to-day operation of their homes. On the one hand, they attempted a form of collective bargaining: negotiating with retailers for discounts for members. On the other, they actively engaged governments and producers on issues like food packaging and handling, and the purity or presence of additives in food products. They were interested in the nutrition of their members and their families, and used their significant numbers and buying power to influence governments on those questions. By 1935 the Federated Housewives Association of Australia (FHAA) had over 100,000 members.

Unsurprisingly for the times, the activities of these women's groups met with mixed responses from governments and society. While the Victorian Government held the FHAA president, Eleanor Glencross, in sufficiently high regard to appoint her to a Royal Commission into the high cost of living in 1925, other segments of society derided their ideas. The Retail Traders' Association of NSW complained regularly of the '[p]leas, demands, and sometimes threats from mushroom societies, associations, leagues and companies for special discounts for their members'.¹⁵ Popular derision for fledgling consumer groups probably arose because the serious consumer issues raised by these bodies 'tended to get lost among calls for less embarrassing underwear advertisements ... and demands for blinds on shop windows so that the dummies could be dressed in private'.¹⁶

Building on the early work of women's organisations, the consumer movement evolved quickly, with its focus expanding from food products and nutrition to textiles, manufactures, and the electrical household goods newly arrived on the market. Where the regulatory approach of governments might previously have been to demand all

14 Extracted in Kingston (1994), pp 104-5.

15 RTA (1932), p 5.

16 Kingston (1994), p 105.

garments be made of wool or leather rather than polyester or vinyl, consumer groups instead simply asked for informative labelling to allow household purchasing decisions to be made with the best information to hand.

New choices and new concerns: quality and safety

A keenly felt concern of early consumer advocates was ensuring product safety and quality. New and wonderful consumer products increasingly became available, which presented consumers with new choices, but also exposed them to new risks. In the post-war period, Australian manufacturing increased dramatically, and products that before the Second World War were regarded as luxuries became everyday household items.¹⁷ A wide choice poses a range of challenges for consumers: confusion about which to choose, concern about whether products are safe or fit for purpose. All of this serves to reduce consumer confidence and leaves consumers unwilling to participate in the market.

The *caveat emptor* principle only works when buyers have sufficient knowledge about the product to exercise proper caution, and in new product markets that knowledge can be difficult to obtain. Concern about product and manufacturing uniformity, safety and fitness for purpose of products available to both consumers and industry led to the formation in 1922 of the Australian Commonwealth Engineering Standards Association (ACESA, now Standards Australia). Voluntary and industry-based standards developed by ACESA and other groups were an effective and flexible alternative to direct government regulation, ensuring consumers knew what they could expect when purchasing products of certain types.

The early twentieth century also saw the liability of manufacturers for the safety and suitability of their products gain legal recognition. In the landmark American case of *MacPherson v Buick Motor Co*¹⁸, *caveat emptor* gave way to *caveat venditor* when Buick was found liable for an injury suffered by a driver of one of its (faulty) cars. In jurisdictions which looked to Britain for jurisprudential leadership, *Donoghue v Stevenson*¹⁹ in 1932 established the tort of negligence, and manufacturers around the world were put on notice that they had to have a care for the basic safety of their goods or else consumers could enforce their rights against them.

The privations imposed by the Second World War demanded tight regulation and rationing in most consumer markets. Consumer choice disappeared, but so too did the

17 White (1981), p 164.

18 *MacPherson v Buick Motor Co.* 217 N.Y. 382, 111 N.E. 1050 (1916).

19 *Donoghue v Stevenson* [1932] A.C. 56, the famous case of the Paisley snail in the ginger beer, was applied in Australia by the High Court in *Australian Knitting Mills Ltd v Grant* (1933) 49 CLR 114 and then by the Privy Council in *Grant v Australian Knitting Mills Limited* (1935) 54 CLR 49.

most excessive instances of consumer exploitation, as governments cracked down on any practice that diverted resources from the war effort, including profiteering. As the war neared its end, it was considered possible 'that after the war, when rationing was lifted, consumers would be too inexperienced and gullible to see through the smart operators who had been excessively constrained for too long'.²⁰ This no doubt raised the spectre of a long era of heavy government regulation to protect consumers from the ravages of free enterprise. As it happened, the consumer-conscious lessons of the Great Depression had not been forgotten during the war. It was the generation of new consumers immediately following the war, the first to relish the peacetime prosperity and make the most of a greater and increasingly inexpensive variety of consumer goods, which gave the consumer movement new momentum.

Developing the consumer voice

In 1959, the West Australian parliamentarian the Hon Ruby Hutchison MLC addressed a public meeting at Sydney Town Hall, which led to the foundation of the Australian Consumers' Association (ACA).²¹ The ACA was a different creature to the women's associations of the early twentieth century and was inspired by similar bodies overseas, including the British Consumers Association, founded in 1957, and the American Consumers Union. While housewives were well represented among the ACA's membership, the early members 'were mainly educated men and women, middle-class professionals, scientists, lawyers, [and] artists'.²² Its first chairman was Professor Roland Thorp, a pharmacologist at the University of Sydney who, inspired by the UK's *Which?* magazine, led the ACA into the field of product testing and published the results in the ACA's magazine *Choice*.

The 1960s were an exciting time for the consumer movement, in Australia and abroad. The ACA had 30,000 members by February 1962²³, and through *Choice* Australians became savvier consumers, aware of pitfalls in the marketplace, and conscious of trends in marketing and other corporate behaviour. *Choice* also, at a time when economics was by no means at the forefront of consumer advocacy, brought attention to the work of Australian economist Dr Persia Campbell who had been working on consumer issues in the United States for some decades. Dr Campbell's 1949 text, *The Consumer Interest*, while concentrating primarily on the American economy, emphasises the importance of facilitating 'wise choice at the market' to achieving beneficial market outcomes and higher standards of living for consumers.²⁴ Facilitating

20 Kingston (1994), p 106.

21 Wood (2000), p 35.

22 Kingston (1994), p 107.

23 *ibid.*

24 Campbell (1949), p 646.

informed consumer choice was – and remains – very much the objective of the consumer movement.

The ACA also brought a greater appreciation of consumer developments in other countries. In 1960, the ACA was a founding member of the International Organisation of Consumer Unions. In the United States, the consumer movement won the support of President Kennedy who, on 15 March 1962 (now Consumer Rights Day), spelled out to the US Congress four basic consumer rights: the right to safety; the right to choice; the right to information; and the right to be heard.²⁵ This so-called ‘Consumer Bill of Rights’ was later expanded and adopted by the United Nations General Assembly²⁶, and continues to enjoy wide support among consumer groups as the basis for consumer advocacy. In 1965, Ralph Nader published his famous exposé of known safety defects in American motor vehicles, *Unsafe at Any Speed*. Two future Commonwealth Ministers responsible for consumer affairs, Barry Jones and Barry Cohen, helped bring Nader to Australia in 1969²⁷, and with Nader came a new consciousness of consumer product safety issues. The combined effect of books such as this and the complaints of increasingly vociferous grassroots consumer organisations was to provide an impetus for a new wave of consumer protection legislation.

Consumer policy comes of age

Australian governments in the mid-1960s began to respond to the concerns of the consumer movement, particularly to concerns surrounding product safety and manufacturing defects. Victoria set up a Consumer Protection Council in 1965, advising the Attorney-General on consumer policy issues.²⁸ The Council was tasked with investigating matters of interest to consumers, ranging from the question of how often goat’s milk should be supplied to co-operative shops to more mainstream topics, and its inquiries were directed largely by those issues referred to it by the Attorney-General.

Four years later NSW enacted the more substantial *Consumer Protection Act 1969*, which Victoria drew upon heavily the following year, as did other jurisdictions shortly thereafter. The NSW Act established both a Council and a Consumer Protection Bureau, which acted in the role of ‘watchdog’ for the interests of consumers.²⁹ The Act also introduced consumer protection provisions such as a prohibition on false advertising, established minimum safety standards for the design and construction of certain goods, and prohibited collusion in tendering and bidding.

25 Marsden (1996), p 15.

26 UN General Assembly Resolution 39/248.

27 Wood (2000), p 39.

28 Consumer Affairs Victoria (2005).

29 Sutton (1971), p 44.

At the Commonwealth level, attention was still very much on the supply side of the marketplace. Sir Garfield Barwick QC, when Attorney-General, pushed for the regulation of competition, given the immense detriment anti-competitive practices caused to the Australian economy.³⁰ The Menzies Government introduced the *Trade Practices Act 1965*, which contained limited provisions dealing with collusion, and the McMahon Government introduced a broader *Restrictive Trade Practices Act 1971*³¹, but the notion that safeguarding the interests of consumers could also assist the operation of the market had not yet been reflected in national regulation.

A comprehensive new approach: the *Trade Practices Act 1974*

The election of the Whitlam Government in 1972 brought new impetus to the recognition of the role of consumers in ensuring effective markets. Under the guidance of the Attorney-General, Senator the Hon Lionel Murphy, it enacted consumer legislation, along similar lines to the state fair trading legislation but with a more ambitious scope, and emphatically linked the interests of consumers with the competitive operation of markets by combining consumer protections with competition law in the *Trade Practices Act 1974*.

In presenting the Trade Practices Bill to Parliament, Senator Murphy declared the *caveat emptor* principle dead. So great was the imbalance between buyer and seller, so sophisticated were new marketing techniques, so intricate were business transactions that 'the consumer needs protection by the law and this Bill will provide such protection'.³² Though framed as an appeal against large businesses taking advantage of individual consumers, this justification for protection engages with the nature of transactions in which consumers take part and recognises the asymmetries inherent in many of those transactions. Attorney-General Murphy also drew the link between anti-competitive practices and the consequent harm that these cause to the interests of consumers, showing the close connection between consumer and competition policies so as to secure efficient market outcomes.

The Government considered federal legislation necessary because of the limitations of a series of inconsistent state laws, which had limited operation. State laws do not easily apply to businesses operating across jurisdictions, are subordinate to any valid inconsistent Commonwealth legislation, and are not suitable for ensuring nation-wide uniformity of legislation. By the same token, the TPA is subject to constitutional limitations on the Commonwealth's legislative power, and is framed only to apply to

30 ACCC (2004), p 7.

31 For a brief overview of the development of competition policy during this period, see Kenwood (1995), pp 88-91.

32 Australian Senate, Debates, 1973, vol. 57, p 1014.

corporations in trade or commerce, or non-incorporated entities operating across jurisdictions.

By the early 1970s there was an increasing tendency to national markets, particularly as competition laws challenged the prevalence of anti-competitive state-based marketing arrangements. In this environment, the TPA introduced new and far-reaching consumer protections, including the widely applicable prohibition on 'misleading and deceptive conduct' found in section 52. This was a clear statement of the primacy of a new kind of regulation, not concerned with just the form of consumer transactions, but with their substance.

Innovation and excitement: consumer affairs in the 1970s

The introduction of national legislation also meant the appointment of a responsible minister. The Hon Bill Morrison MP was appointed the first federal Minister for Consumer Affairs in 1975. With a national profile, there came an increased interest from the press and the public on consumer issues. Consequently, with a split in responsibilities between state and Commonwealth governments, in the period after the introduction of the TPA there developed 'a sporadic competition ... to have the most progressive consumer affairs agenda'.³³ An early example of this desire to be different was the creation of the first stand-alone Department of Consumer Affairs in NSW in 1976, distinct from the NSW Government's legal and economic policy agencies.³⁴

The introduction of the TPA, in an environment where national product and service markets were becoming increasingly common, might have led to pressure for uniform national laws. The opposite occurred. Policy competition between States and also with the Commonwealth led to divergence in the nature and extent of consumer protection from jurisdiction to jurisdiction. Increased uniformity, including in areas related to consumer affairs such as food quality, was one of the principal drivers behind the Federation in the late nineteenth century³⁵, yet by the end of the 1970s the Australian consumer policy landscape was as fragmented as imaginable. Though the Trade Practices Commission (TPC, the forerunner of the Australian Competition and Consumer Commission (ACCC)) was achieving national consumer protection outcomes unknown in the pre-TPA era³⁶, there was still no effective framework guiding uniform consumer policy across Australia.

33 Wood (2000), p 37.

34 Miley (1987), p 22.

35 Wood (2000), at p 39, attributes an 1852 call for uniformity in the food sector to Sir Henry Parkes.

36 For example, the \$100,000 fine imposed on Sharp Corporation for misleading and deceptive conduct in *Hartnell v Sharp Corp of Australia Pty Ltd* (1975) 5 ALR 493.

With the election of the Hawke Government in 1983 came renewed efforts to unify competing consumer laws. The Commonwealth enacted major amendments to the TPA, increased funding to the Australian Federation of Consumer Organisations, and established the Federal Bureau of Consumer Affairs.³⁷ The 1980s also saw the establishment of the Standing Committee of Consumer Affairs Ministers (SCOCAM; now the Ministerial Council on Consumer Affairs), whose regular meetings were designed to encourage uniformity in consumer law across jurisdictions. Despite this renewed enthusiasm, uniformity was not achieved.

Ever-changing markets

Just as the advent of electrical consumer goods and increasingly exotic manufactures created momentum for safety and quality regulation in the 1920s and 30s, the rapidly changing nature of Australian markets in the latter half of the twentieth century continued to influence consumer policy thinking. The pace of technological and industrial development has not slowed, and regularly introduces consumers to complex markets where effective choices are not as easily made.

Not only are markets becoming more complex, they are becoming more national in scope. Businesses trading within only one jurisdiction are increasingly rare, as are consumers with little interaction with jurisdictions outside their own. Today, almost half of all goods and services are supplied by businesses operating in more than one State or Territory, and the number of businesses operating in all Australian States and Territories has increased rapidly even over the last five years.³⁸

The Australian marketplace is sufficiently accessible for firms, as a rule, to achieve the sorts of economies of scale that make a national operation viable. Australian consumers' needs and access to information do not vary significantly from one State to another. Consumers also have access to an increasing variety of imported consumer products which are unlikely to find markets in only one State, as well as to the suite of consumption opportunities afforded by the development of the Internet.

Consequently, the last decades of the twentieth century saw national efforts at reform and deregulation to deal more appropriately with what is recognised to be a single, national economy. Significant progress was made in areas such as corporations and financial services laws, and the National Competition Policy ensured the supply side of the national economy was subject to uniform regulation. By 1987 the national nature of the Australian marketplace was sufficiently well recognised for an advisory committee to the Constitutional Commission to recommend the States hand over their

37 Wood (2000), p 39.

38 The Productivity Commission (2008) reports an increase in the number of businesses operating in all jurisdictions of over 70 per cent since 2003 (pp 51-2).

consumer protection powers to the Commonwealth.³⁹ However, despite this recommendation and subsequent competition policy reform, the consumer's role in the national marketplace remained subject to regulations varying between jurisdictions.

Consumer policy in national public policy institutions

Changing perspectives: finding a home for consumer policy 1974-1998

While many States have had departments dedicated to consumer policy and enforcement for forty years, the public administration of consumer policy at the Commonwealth level has shifted over time. This reflects, in part, differing ideas about how consumer policy issues should be approached, and from what perspectives these issues are best viewed.

A concern for social justice and for basic legal rights has long formed part of the consumer movement's perspective on consumer policy issues.⁴⁰ This view is primarily concerned with the protection of consumer's rights and balancing the respective powers of consumers and businesses. In this respect, it was a response to the growing sophistication of the way in which businesses operated and dealt with consumers in an increasingly national market for consumer products and services. However, other policy perspectives have had a significant impact on the development of consumer policy over time, with social, legal, business and economic concerns all having a greater or lesser influence on governments. This changing policy perspective has influenced governments in how they have located consumer policy within the wider policymaking environment, and the institutions they have created to administer the consumer law.

The Whitlam Government established the TPC to administer and enforce the TPA in 1974. Prior to the establishment of the TPC, and the similar bodies at state level, the consumer law was enforceable primarily by consumers themselves, often through the Sale of Goods Acts, which had simply extended the civil remedies available under the law of contract. This new regime involved the state in safeguarding the interests of consumers, through a framework which considered it necessary to apply penal sanctions to unfair behaviour rather than merely provide avenues for consumer redress. One early 1970s commentator contended,

If a choice has to be made between imposing penal sanctions or providing civil remedies ... the former must prevail, for the fact is that if the enforcement of the

³⁹ Wood (2000), p 42.

⁴⁰ See Brown and Panetta (2000).

law is left to the individual, most of the evils which the legislation is aimed at would go unchecked.⁴¹

Allowing the TPC to act in the interests of consumers recognised that the costs of private action may outweigh the benefits for individual consumers, and that the state can play a role in coordinating private interests to secure efficient outcomes. While it is not clear that criminal action is always to be preferred over achieving timely redress for wronged consumers, it remains an important aspect of the consumer policy framework that the consumer law can be enforced not just through private action but by regulators.

Ministerial responsibility

When the TPA was enacted in 1974, ministerial responsibility for consumer policy rested with the Attorney-General. This reflected Attorney-General Murphy's role in the development and enactment of the TPA, as well as the continuity of administration of the previous trade practices legislation. In 1975 the Whitlam Government created the post of Minister for Science and Consumer Affairs responsible for the development of consumer policy, with his own department. Nevertheless, the Attorney-General retained primary responsibility for the administration and amendment of the TPA, which in no small part was due to his department's expertise in the development of trade practices law.

In 1976 the Fraser Government appointed the Hon John Howard MP as Minister for Business and Consumer Affairs, with his own department, and he took over full responsibility for the TPA. The creation of a new department, which considered the needs of both business and consumers, reflected a view that consumers and businesses had common interests and raised similar policy issues for governments to address. At the time, consumer groups were critical of this coupling on the basis that business interests would always prevail under this sort of arrangement.⁴²

Still, the question of what might be the best location for consumer policy within the Commonwealth bureaucracy was not yet settled. In 1982 the Fraser Government returned responsibility for consumer affairs to the Attorney-General. On coming to office in 1983 the Hawke Government appointed a Minister for Home Affairs and the Environment, the Hon Barry Cohen MP, whose portfolio responsibilities included consumer affairs. However, by 1984 consumer policy was once again the responsibility of the Attorney-General, now Senator the Hon Gareth Evans, and this is where consumer policy remained until 1996.

41 Sutton (1971), p 65.

42 Brown and Panetta (2000), p 14.

In 1996, the Howard Government included consumer policy within the responsibilities of the Minister for Industry, Science and Tourism, who was assisted by a designated Minister for Small Business and Consumer Affairs, the Hon Geoff Prosser MP. This back and forth between various government departments reflected the difficulty governments had in pin-pointing the exact role of consumer policy, not to mention the shifting public prominence of the issue. In 1998, consumer policy was moved again to form part of the responsibilities of the Treasurer, the Hon Peter Costello MP, along with competition policy. In this regard, the Treasurer was generally assisted in this matter by a minister outside of Cabinet. This transfer provided opportunities for improved coordination in the development of policy advice on issues impacting on consumers and helped ensure that the competition and consumer policy provisions were more closely aligned.⁴³

The emergence of consumer policy as an economic policy issue

In the 1990s Australian governments became increasingly concerned with the importance of well-functioning markets for improving productivity and economic growth. Governments both pursued supply-side reform to improve market efficiency – most notably as a consequence of the Hilmer Report⁴⁴ – and had regard for the potential interaction between consumer laws, broader market regulation and consumer welfare. Indeed, the ultimate objective of the National Competition Policy reforms was not simply achieving structural reform, but enhancing consumer welfare through more efficient markets and improved competition.

At the time, the decision to move consumer affairs to Treasury was the subject of criticism from some consumer advocates on the basis that ‘the culture’ of an economic policy department would not favour consumer interests.⁴⁵ However, in considering the placement of consumer policy within government, an important factor is the analytical framework adopted by the agency, and the alignment of consumer policy with other areas of policy affecting the operation of markets. Economic policy is fundamentally concerned with consumer wellbeing.

From a policy perspective, consumer affairs is concerned with the way in which consumers operate in markets and the degree to which governments will, or will not, intervene to protect their interests. This is, essentially, an economic issue. This is not to say that other issues have a greater or lesser role to play in the policy development process, but it is a recognition that poorly designed consumer protections may ultimately do more harm to consumers than good. Treasury’s central involvement in

43 Treasury Annual Report, 1998-99.

44 Report by the Independent Committee of Inquiry into a National Competition Policy for Australia, August 1993.

45 Wood (2000), p 42.

developing the new national consumer law, agreed by the Council of Australian Governments (COAG) on 2 October 2008 and which will include a provision addressing unfair contract terms, highlights the fact that an economic policy agency is not by its nature opposed to increasing protections for consumers. Rather, entrusting consumer affairs to an economic agency such as Treasury ensures that consumer issues are analysed within a context which recognises the broad economic consequences of consumer protection measures. For this reason, we avoid rushing 'to employ consumer protection tools, because these often lessen consumer autonomy and power, and that would obviously run counter to [the] broader goal of consumer empowerment'.⁴⁶

On its election in 2007, the Rudd Government retained consumer and competition policy as a Treasury portfolio responsibility, and appointed the Hon Chris Bowen MP as Minister for Competition Policy and Consumer Affairs. Since that time, consumer and competition issues have assumed an increased profile, driven in large part by the impact of current economic circumstances on consumers, which have given consumer issues a greater prominence than they have had in the recent past.

The future of Australian consumer policy

In 2005, the Howard Government received the report of the Taskforce on Reducing Regulatory Burdens on Business (the Banks Taskforce), which was set up to identify and recommend solutions to deal with the problems associated with imperfectly designed and applied regulation in the Australian economy. The Banks Taskforce concluded that there was duplication of consumer regulation across Australian jurisdictions and regulation was inconsistent across States, making compliance difficult for businesses trading nationally. With this in mind, it recommended that the Council of Australian Governments, through the Ministerial Council on Consumer Affairs, undertake a comprehensive review of the Australian consumer policy framework.

The Productivity Commission's Review of Australia's Consumer Policy Framework

In April 2008, the Productivity Commission presented its *Review of Australia's Consumer Policy Framework* to the Australian Government. The Commission concluded that Australia's consumer policy framework has considerable strengths, but also that there is considerable room for improvement. Many of the inefficiencies and problems associated with Australia's consumer laws are derived from the split between national and state and territory responsibilities. This causes a range of problems in terms of creating regulatory duplication in some areas, gaps in others and policy inertia, all of which lead to inconsistencies in policy and enforcement, and weaknesses in the redress

⁴⁶ Henry (2007), p 16.

options available to consumers. The Commission also recognised that rapidly changing markets meant policy and enforcement agencies would struggle to address consumer problems, and that the costs of doing nothing would increase.

The Commission recommended an ambitious reform agenda to harmonise generic consumer laws and better coordinate enforcement, which also recognised the ongoing interest, expertise and capability of Australia's States and Territories in consumer policy and enforcement. To this end, the Commission recommended the development and implementation of a new national consumer law, based on the TPA, which draws on the Commission's recommendations and, where there is general agreement that the TPA is not adequate, relevant state and territory laws. To support this new law, the Commission also recognised the need for a wider range of enforcement powers, to allow for more proportionate responses to consumer law breaches and also greater coordination of enforcement between the ACCC and the state and territory consumer law enforcement agencies. The Commission also highlighted the importance of improving the ways in which consumers can access information, advice and assistance with consumer issues, through greater institutional coordination and improvements to dispute resolution mechanisms.

Australia's new consumer policy framework

On 2 October 2008, COAG agreed to a comprehensive consumer policy framework reform program based on the Productivity Commission's recommendations. This package of reforms will address a range of systemic consumer policy issues, including:

- the need for a **coherent objective for consumer policy**, with all Australian governments agreeing to the following common objective for consumer policy: 'To improve consumer wellbeing through consumer empowerment and protection, fostering effective competition and enabling the confident participation of consumers in markets in which both consumers and suppliers trade fairly';
- the need for **national legislative consistency** in generic consumer law, to be achieved by means of a new national consumer law, which will be based on the current consumer protection provisions of the *Trade Practices Act 1974* (TPA) and will also incorporate appropriate amendments reflecting the Commission's recommendations and best practice in state and territory legislation. The new law will also be consistent across all industries, to the extent practical;
- the need for **effective policy development and decision making frameworks**, which will be achieved through the adoption of a cooperative application law scheme, to be amended by agreement of the Commonwealth plus four State and Territory governments (of which at least three must be States), and greater COAG supervision of the implementation of reforms;

- the need for **more effective and consistent enforcement**, to be achieved through a range of proportionate enforcement powers, and a greater commitment to cooperation and communication by enforcement agencies; and
- the need for **enhanced engagement with consumers**, which will be progressed by a more coherent approach to providing consumers with useful and timely information and improved dispute resolution procedures.

The Productivity Commission calculated that these reforms could provide significant economic benefits to the Australian community.⁴⁷ In addition, they will provide considerable administrative benefits and savings, providing a more streamlined policy process and more effectively coordinated consumer law enforcement. In developing the reforms – which have been widely welcomed – an economic policy framework has been applied, with the nature of the reforms, their impacts and their costs and benefits assessed in an economic context, but also with regard to the wide range of other relevant political, social and other factors.

Economic analytical frameworks for consumer policy

Adam Smith in the *Wealth of Nations* (Book IV, Chapter VIII) noted that:

Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident that it would be absurd to attempt to prove it.

More recently, Sir John Vickers (2003) has pointed out that ‘uninformed [consumer] choice is not effective choice, and without that there will not be effective competition’.⁴⁸ While the role played by competition laws in contributing to the efficient operation of markets is well recognised, ‘consumers also need policy protection to ensure they can exercise effective choice. Such interventions empower consumers to drive the market and activate competition’.⁴⁹

This link between consumer wellbeing and well-functioning markets is now uncontroversial, and the link in policy terms between supply-side regulation, in the form of competition policy, and demand-side interventions, in the form of consumer policy, is commonly accepted as a valid framework within which to develop policy, where previously it was regarded as groundbreaking when the TPA was enacted.

47 The Productivity Commission estimated its ‘reform package could provide a net gain to the community of between \$1.5 billion and \$4.5 billion a year’. Review of Australia’s Consumer Policy Framework, Volume I, p 3.

48 Vickers (2003), p 5.

49 Henry (2007), p 13.

The economic paradigm simplifies how markets work into the following proposition: a market is an efficient means of allocating resources if it is highly competitive, information is symmetric, there are no public goods, transaction costs are nil and there are no externalities in consumption or production. This is a perfect market, and any deviation from this proposition results in a market failure.

The problem is that no market is perfect, and in all markets there is likely to exist one or more of these failures. Most markets are not highly competitive, information is often asymmetric, public goods exist, transaction costs are usually positive (and associated with imbalances in bargaining power) and there are significant externalities in both consumption and production. The function of consumer policy in an economic context is to provide insight on the issues surrounding the purchase and use of consumer goods and services.

Effective economic analysis is characterised by an ability to take a multidisciplinary approach, so as to consider the economic paradigm in the context of the prevailing legal and social framework. For example, governments are increasingly looking at the implications of psychological factors on consumer decision making. Behavioural economics draws on insights from psychology to better understand the behaviour of individuals, firms and regulators in an economic system.

A more sophisticated approach to consumer policy making also allows policy makers to design policies more accurately, to respond in a more focused way to the needs of consumers actually suffering some form of detriment, rather than applying crude solutions to entire markets. This has been a common regulatory problem, and has led to considerable distortions in markets that ultimately serve to harm the wider interests of consumers.

Of course, simply applying specific solutions to specific groups of consumers can also lead to problems. For example, consumer policies designed to benefit disadvantaged consumers may not be effective in achieving that end, as businesses will often pass on the costs of regulation to all consumers. By applying a framework that takes into consideration economic, social and behavioural effects, and which endeavours to quantify those effects, policy makers are in a better position to implement effective policy solutions which avoid these common problems.

All consumer policy tools affect how markets function. Depending on how they are designed and implemented, these regulations can improve the economic efficiency of markets, or place considerable restrictions on market interactions. Generally speaking, overly restrictive consumer policy can discourage new entrants from entering into the market and reduce the overall level of competition and consumer choice. However, in some cases, the public policy imperatives driving regulation permit governments to impose considerable distortions in markets, for example the regulation of food and

product safety. However, analysis of the impacts of consumer regulation on economic efficiency (which necessarily includes an assessment of the impact on consumers both individually and collectively) is an important discipline on consumer policy makers, so as to ensure that policies are well understood in both their application and their impacts, even if the primary drivers of policy are non-economic.⁵⁰

Treasury's approach to consumer policy thinking

As an economic policy agency, Treasury's mission is to improve the wellbeing of the Australian people by providing sound and timely advice to the government, based on objective and thorough analysis of options, and by assisting Treasury ministers in the administration of their responsibilities and the implementation of government decisions.⁵¹ In doing this, Treasury seeks to apply a series of basic principles to policy making called the Wellbeing Framework. The Wellbeing Framework is drawn from widely recognised economic principles, but also allows for a consideration of non-economic concerns and issues in the policy development process. It 'is a grassroots statement of [Treasury's] mission, encompassing market, non-market, material and intangible components'.⁵²

50 Price (1977), p 100.

51 Treasury (2008)

52 Henry (2007), p 3.

Treasury's Wellbeing Framework

The Wellbeing Framework comprises five elements against which public policy issues can be assessed:

- the opportunity and freedom that allows individuals to lead lives of real value to them;
- the level of consumption possibilities available to the community over time. This includes both market and non-market goods and services such as voluntary and community work, the quality of the physical environment, health and leisure;
- the distribution of these consumption possibilities, including among different groups within society, across geographical regions and across generations;
- the overall level and allocation of risk borne by individuals and, in aggregate, by the community; and
- the level of complexity confronting Australians in making decision about their lives.

Source: Treasury, *Who we are and what we do* (2008).

In common with other significant public policy issues, effective consumer policies impact on all elements of the Wellbeing Framework. Often, these impacts imply trade-offs. While much government regulation will impact directly or indirectly on consumers, 'consumer policy' consists primarily of the suite of government policies that deal with the purchase and use of consumer goods and services. At the Commonwealth level these are largely regulated through the consumer protection provisions of the *Trade Practices Act 1974* and the mirror provisions of the *Australian Securities and Investments Commission Act 2001* (in respect of financial services). In addition, sector-specific consumer regulation and government information/education campaigns also exist.

The first element of Treasury's Wellbeing Framework, which invites the policy maker to consider the level of opportunity and freedom that people enjoy, is central to good consumer policy. From July 2007 to June 2008, Australian households spent \$591.9 billion on consumer goods (excluding dwellings)⁵³, and they funded this, in

⁵³ Australian Bureau of Statistics (2008), Series ID A2304081W – Households Final Consumption Expenditure, 5206.0 – Australian National Accounts: National Income, Expenditure and Product.

part, with \$83 billion in consumer borrowing.⁵⁴ Household consumption currently represents 57.7 per cent of annual GDP. As such, policies directed at facilitating consumer interactions are significant for most people, both in terms of their ability to consume material goods and services, but also in terms of empowering individuals to make choices.

Consumer policies have an indirect, but important, impact on the second element of the Wellbeing Framework: the level of consumption possibilities. The market is most effective at providing the consumption possibilities demanded by consumers when consumers are confident in engaging in markets, businesses have clear signals about consumer preferences and consumers understand the range of offerings in the market. Effective consumer policy can improve the functioning of competition by promoting transparent transactions and deterring illegitimate operators from the market. Many of the consumer protection provisions of the TPA (and equivalent state and territory legislation) are concerned with mitigating the potential for traders to distort and then take advantage of consumers' expectations about the price, quality and availability of goods and services on offer.

Consumer policies also have an indirect influence on the third element of the Wellbeing Framework: the distribution of consumption possibilities. Certain groups in society face special disadvantages as consumers due to social, economic and other factors. The nature and extent of that disadvantage will determine whether it is best addressed through consumer policies or through non-market social policies. For example, the Ministerial Council on Consumer Affairs endorsed the introduction of a National Indigenous Consumer Strategy (www.nics.org.au) in 2005, with a view to improving Indigenous Australian consumers' knowledge of their rights and obligations and reducing detriment experienced by vulnerable or disadvantaged Indigenous consumers.

Consumer policy has a more obvious link with the fourth and fifth elements of the Wellbeing Framework. In relation to the level and incidence of risk, for centuries the rule of *caveat emptor* assigned all risk associated with a transaction to the consumer alone. This rule relies on the understanding that consumers are discerning and can ascertain the quality of goods and services. But over time this principle has worked against consumer interests, particularly with the widespread use of pre-packaging. Governments recognised that in addition to equipping consumers with more information, one of the most effective means of rectifying this information asymmetry was by placing the cost of product failure onto the producers whenever they are in the best position to identify and rectify product deficiencies. Division 2, Part V of the TPA

54 Australian Bureau of Statistics (2008), Series ID A2413439V – Personal Finance Commitments, 5671.0 – Lending Finance, Australia.

implies into all consumer contracts certain non-excludable conditions and warranties (including that goods are fit for purpose and consumers can enjoy quiet possession). Most of these implied conditions and warranties cannot be removed by sellers even if consumers have provided consent.

Finally, the Wellbeing Framework places an emphasis on policy making taking into account the level of complexity confronting Australians. When markets change rapidly (for example, through new technology or changes in preferences), there may be incentives for traders to exacerbate the complexity associated with those markets. There are two broad ways governments can address complexity: by reducing complexity (through regulation directed at the way businesses deal with consumers); and by helping people to better deal with complexity (through dispute resolution arrangements and educational initiatives). In addition, the non-government sector is able to provide intermediary services to assist consumers to deal with complexity. Financial services and consumer credit are particularly complex areas for many consumers. In response, Australian Securities and Investments Commission's Understanding Money website (formerly managed by the Financial Literacy Foundation) is an educational tool designed to assist consumers in understanding basic and moderately complex financial issues, such as investing and superannuation.

All five elements of the Wellbeing Framework shed light on consumer policy issues, and the framework as a whole provides a firm basis for developing good consumer policy.

A demand side harnessed, but champing at the bit

From its beginnings, Australian consumer policy has addressed fundamentally economic problems and provided economic solutions to them, even if they were not clearly recognised as such at the time. The challenge of consumer law has always been to harness the demand side of markets, in order to drive those markets to efficient outcomes that will benefit consumers. But since the demand side is given much rein, it heads constantly in new directions, engaging with new markets and encountering new snares. In order to ensure consumer wellbeing, effective consumer policy requires an analytical framework which considers the economic implications of any policy on the choices available to consumers, and on the risks to which they are exposed. It is also necessary, for truly effective policy development, to recognise the importance of non-economic perspectives. For these reasons, Treasury uses the Wellbeing Framework as the foundation of its policy development. It allows for active and responsive policy on consumer issues, within a context that ensures consumer policy will continue to form an important element of Australia's national economic policy.

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Harnessing the demand side: Australian consumer policy

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Key themes from Treasury's Business Liaison Program

As part of Treasury's Business Liaison Program, staff met with around 50 businesses and some industry and government organisations, in Sydney, Melbourne, Brisbane and Perth during September, October and November 2008.¹

Treasury greatly appreciates the commitment of time and effort by the businesses, industry associations and government agencies that participate in the program.²

In general, the discussions revealed operating conditions to be somewhat more robust than current readings of consumer sentiment and business confidence would suggest. That said many businesses are anticipating more difficult conditions in the first half of 2009 before a turnaround in the second half.³

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- 1 A detailed explanation of the Treasury Business Liaison Program is provided in the Treasury *Economic Roundup*, Spring 2001.
 - 2 This summary reflects the views and opinions of participants in the liaison program, which are not necessarily shared by Treasury. While Treasury's evaluation of the economic outlook is informed by findings from business liaison, a much wider range of information and data is used to develop a more rigorous assessment of the Australian economy.
 - 3 This summary focuses in more detail on the construction, mining and retail sectors. Additional meetings were held with representatives from the banking and finance, manufacturing, wholesale trade, accommodation, transport, real estate and employment services sectors and the general themes arising are reported. The program encompasses the full range of sectors and Treasury aims to meet with a broad cross-section of the business community over time.

Business credit

Overall, firms reported that credit conditions had tightened over the past year, particularly in recent months. While lending standards have become more restrictive in recent months, contacts advised that in general the business case for new borrowing had also become unfavourable, suppressing demand for credit.

As might be expected, the smaller organisations were generally finding it more difficult to secure funds than the larger organisations – larger parent firms can more easily secure credit for their subsidiaries. Firms also reported that the cost of credit had increased significantly over 2008, due to higher interest rates on borrowings and more onerous fee structures.

Construction firms reported that credit for prospective building projects (residential and non-residential) had diminished significantly – from both domestic and foreign sources. This was also the case for some mining firms. In particular, small and mid sized firms (particularly base metal producers) were finding it difficult to secure credit for new mining projects. Larger miners were also becoming increasingly sensitive to credit market conditions. Retailers and distributors noted a general tightening of credit but no significant deterioration in accounts receivable.

Sectoral activity

The broad consensus among non-residential construction contacts was that the current investment cycle reached its peak earlier in the year. Levels of activity remained high, but the value of future work entering the pipeline has slowed. For the period ahead, construction firms expected the slowing domestic economy and tight credit conditions to weigh on activity.

Mining firms reported a slowing in activity, appearing first among smaller to mid sized firms and more recently extending to the larger players. Some mining firms reported that slowing global growth had begun to impact on exports, with foreign customers pushing back on orders. This had led to scaling back of production and a number of closures. However, mining (and related construction) firms were generally optimistic regarding the longer term outlook. Mining firms expected strong future demand growth for their product – driven by ongoing development in China and other emerging Asian economies.

Retail firms reported that trading conditions had been relatively weak since around March 2008. Retail sales spiked somewhat in July and August, due in part to the July 2008 tax cuts and, for retailers of household electrical items, the Olympics, however sales growth has since eased. Those exposed to the rural sector reported

relatively favourable conditions as somewhat better seasonal outcomes began to flow through.

In general, smaller retailers had found recent trading conditions more severe than larger retailers. Shifts in retail market share and changes in the composition of consumption away from more expensive, discretionary items were said to be buoying conditions for certain retailers, while worsening conditions for others.

As a response to potentially weaker sales growth, retailers (particularly the larger players) were undertaking aggressive advertising campaigns.

Retailers expected trading conditions to hold up over the Christmas period before weakening further into Easter, with most contacts not expecting an upswing until around mid-2009.

Investment plans

The investment outlook varied by sector, depending on credit conditions as well as the relative exposure to the domestic and international economies.

Construction firms reported a very uncertain investment outlook across much of the sector, but most notably for office construction. In particular, reduced credit availability meant that prospective projects which had not yet secured financing (but might still have been financially viable) could not be progressed. As a result, firms' forward investment pipelines were relatively empty. Over the next several months, firms had sufficient projects on their books (current projects and those that had obtained financing), to sustain investment activity at around current high levels. Beyond that, construction activity was seen to largely depend on the extent to which credit constraints ease and demand holds up.

The investment outlook for mining (and related construction) firms differed substantially, reflecting relative credit constraints and recent trends in output prices. Credit constraints and lower commodity prices are compelling some firms to review and in some cases defer expansion projects. Firms that had been unable to secure credit for new projects (mainly small and mid sized miners) had been forced to defer investment. Overdraft facilities and trade credit were also tightening. Recent commodity price falls, particularly for base metals, had also forced some firms to delay projects. Many firms were reassessing their investment plans amid softening export revenues, but widespread changes are yet to occur. However, miners remained relatively optimistic regarding the longer term investment outlook, maintaining significant forward investment profiles.

With trading conditions expected to improve by around mid-2009, most retailers were planning some form of investment in the period ahead. Some firms were planning expansions, while others were planning refits of existing stores as part of a rolling refurbishment schedule. In general, firms reported that tighter credit conditions and higher financing costs had not (as yet) significantly affected investment plans – although these were cited as major risks to investment plans.

More generally the outlook for business investment appears set to soften into 2009 as expansion programs and non-essential maintenance for plant and equipment are deferred. This should largely be a timing issue, albeit contingent on the expected recovery materialising.

Employment and skills

In line with the expected slowing in activity, firms reported a weakening employment outlook. As a result, the acute skills shortages, particularly within the mining and construction sectors, were expected to ease.

Construction firms expected to reduce employee numbers in line with softening construction activity. As with investment, the outlook for construction employment was reported as being uncertain. Some construction firms had reduced employee numbers in recent months, reflecting weakening construction activity – most notably in New South Wales.

Skill shortages were reported as still being a key concern for construction firms (with most firms reporting that shortages had not abated significantly over the past year), however firms expected shortages to diminish with easing labour demand. Shortages were reported as being most acute for categories of workers with skills which are readily transferable to the mining industry, for example project estimators and developers. This, as well as strong competition for workers within the construction industry, meant that firms were finding it difficult to retain staff.

The outlook for mining-related employment was also reported as being largely dependent upon the investment outlook, with mine (and related infrastructure) construction requiring significantly greater labour resources than mine operation.

For mining and related firms, shortages were still present across most professions, most acute for highly skilled workers such as engineers. Mining firms reported that skilled labour constraints had subsided somewhat, in part due to the 457 visa program.

With retailers expecting sales growth to slow in the period ahead, firms foresaw the need to reduce employee hours in order to protect margins. Some retailers had already made small adjustments to employee hours in recent months, in line with worsening

trading conditions. Compared to other sectors, retailers are more able to make such adjustments – employing a relatively high proportion of casual workers.

For retail firms, skills shortages were still a relatively minor issue. However, retailers reported that it was difficult to find and retain 'quality' staff, in particular those at management level. This was reported as being most acute in Western Australia.

Wages and other costs

Regardless of their sector, firms reported that wages growth had been relatively stable over the past year – notwithstanding the relatively tight labour market. However, rates of growth still differed widely across sectors and professions, with the resource boom in Queensland and Western Australia remaining the key driver in this regard.

Construction firms were still confronting strong wages growth, particularly for those professions that are transferable to the mining sector. There were expectations of some easing in wage pressures in line with moderating demand. For miners, construction workers and train drivers were reported as commanding particularly high wage rates. With regard to remote mining regions, wages growth was reported as being exacerbated by substantive house price growth, such that fly-in fly-out workers were more cost effective. For retailers, wages had been increasing broadly in line with the CPI over the past year.

Retail firms reported that prices of imports from Asia had begun to increase, reflecting wages growth and the removal of export subsidies. In addition, the rapid currency depreciation was expected to raise the landed cost of imports. As a consequence, retail firms were seeking alternative import sources. Overall, firms were still experiencing strong cost pressure from rising transportation and electricity prices, however this was expected to abate somewhat as cheaper fuel prices flow through to users.

Construction and mining firms reported ongoing sharp rises in the cost of materials, particularly steel and concrete, although steel costs were beginning to subside. For miners, freight costs had also eased recently reflecting softening global demand for shipping capacity. Retailers reported strong increases in rents, particularly in shopping malls.

Prices and profits

Margins for building construction firms had diminished significantly over the past year, largely reflecting strong increases in construction costs. Looking ahead, construction firms expected additional margin contraction as commercial property prices ease.

Mining firms stated that the recent commodity price falls represented a significant brake on their profitability. Over recent years, mining firms have generated substantial profits from high commodity prices. Falls in commodity prices will dampen revenue as lower prices are reflected in new contracts (the recent exchange rate depreciation has provided a boost to revenues for those miners that sell in US dollars).

Despite the recent commodity price falls and anticipated near-term weakness, mining firms were relatively positive on the longer term outlook for prices. In particular, while bulk commodity producers did not expect any further rises in contract prices this cycle, they did expect prices over the longer term to be supported by ongoing strong demand from China and other emerging Asian economies. In this context, miners expected revenue growth to be driven by strength in volumes rather than prices.

Retail firms reported that margins were tight, but were largely being maintained. Strong competition within retailing meant that prices growth had been limited, and with firms facing cost pressures, they had to continuously review their cost structures to protect margins. The impact of the currency depreciation on the price of imports may become more important into 2009.

Regions

From a regional perspective, there was a broad consensus among firms that the New South Wales economy was experiencing particularly weak conditions. Construction firms reported little interest in pursuing developments in the Sydney CBD (were credit constraints not an issue), with developers citing a lack of demand. Retailers observed that the New South Wales market had been weak for some time and they expected it to perform relatively poorly in the period ahead.

The other key theme to emerge was that contacts considered activity in the resource States (Western Australia and Queensland) was beginning to slow following very strong growth in recent years. For retailers, the resource States had generally been the best performing markets, particularly Western Australia. However, sales growth was now expected to moderate in these regions.

Alexander Poynton — the caretaker

John Hawkins¹

Alexander Poynton served briefly as Treasurer in Billy Hughes' National Labor government. He is the only Treasurer from South Australia. While he was not Treasurer long enough to bring down his own budget, he did present the 1919 Budget to parliament on behalf of the then Treasurer, William Watt.



Source: National Archives of Australia, A8120, 5.

¹ The author was formerly in the Domestic Economy Division, the Australian Treasury. Thanks to Allan Seymour for archival assistance. The views in this article are those of the author and not necessarily those of the Australian Treasury.

Introduction

Alexander Poynton OBE was not quite the shortest-serving Treasurer, but is the most obscure.² Poynton was regarded by Earle Page as ‘a capable administrator’ but made little lasting impact.³ He was described as stocky, red-faced and fiery.⁴ Yet a contemporary journalist called him ‘a favourite with all parties in the House’.⁵ The only Treasurer from South Australia, he was remembered for his brief time as Treasurer, knowledge of rural matters and having one brother who was Lord Mayor of Perth and another Lord Mayor of Melbourne.⁶

Poynton’s life before politics

Alexander Poynton was born in Castlemaine, Victoria, on 8 August 1853, the son of an English miner and farmer and his Irish wife. Alexander left school at 14 when his father died and worked as a miner, shearer and station-hand. Poynton’s father had taken part in the Eureka rebellion, and Ballarat was also an important place for Alexander Junior, for it was here that in 1880 he married 17-year-old Harriet Brown, with whom he was to have eight children.

Early political career

Poynton became involved in trade unionism, and in 1888 moved to Port Augusta in South Australia as a union organiser.⁷ In 1890 he stood unsuccessfully for the SA House of Assembly seat of Newcastle but in 1893 won the adjoining seat of Flinders. As an independent Labour member he attended Labour caucus meetings but was not bound by its decisions.⁸ While an early supporter of Premier Kingston, in 1899 he crossed the floor to bring down the Kingston Government, citing Kingston’s tardiness in implementing land reform, an act for which he was expelled from the Australian Workers’ Union. Poynton then served as commissioner for crown lands in the Solomon Government, which lasted only eight days. He maintained his interests in pastoral matters and from 1903 was a partner in the stock and station agency Poynton & Claxton.

2 Bob Hawke was Treasurer for a day and Gough Whitlam for two weeks.

3 Page (1963, p 59).

4 Van den Hoorn (1988).

5 Columnist, *Punch* (Melbourne), 11 August 1910, p 192.

6 Obituary in *Adelaide Advertiser*, 10 January 1935.

7 He variously served as president of the Amalgamated Miners’ Association at Creswick, foundation Treasurer of the Amalgamated Shearers’ Union and Treasurer of the Australian Workers’ Union.

8 Labor has been the standard spelling since 1912 (see footnote 2 of Hawkins, 2007a).

In 1901 Poynton was elected to the first federal parliament as a South Australian MP, gaining support from both free traders and parts of the labour movement.⁹ This broad support led to his being elected unopposed for the huge electorate of Grey in 1903, 1906 and 1910. According to the ALP's caucus minutes, he did not formally join the Labour Party until June 1904.¹⁰ During the Fisher Government of 1910-1913 Poynton was Chairman of Committees. In 1911 he travelled on a fact-finding tour of Canada, the United States and the British Isles, which he wrote up as Poynton (1912). He referred to the trip as also being 'for the benefit of my health' and it enabled him to attend the coronation of George V with his colleagues Batchelor, Fisher and Pearce. He was impressed by the model factories he saw in England which he contrasted with those run by 'sweaters'.

Poynton strongly supported Hughes' stance on conscription, because of or despite the death of one son in the Boer War and another in World War I. It was therefore no surprise when he followed Hughes out of the Labor Party when it split in 1916.

Treasurer and afterwards

When Hughes formed his minority National Labor Government on 14 November 1916, Poynton was appointed Treasurer. Contemporary newspapers report on the progress of the war and negotiations to form a coalition or national government, with Poynton and economic matters barely rating a mention.

Poynton's main focus while Treasurer seems to have been on the raising of war loans. He was concerned in the days before the fourth issue that 'it is becoming increasingly difficult to find large sums' and approached the banks for their assistance.¹¹ Publicly, he launched the fourth issue with an appeal to patriotism, declaring: 'it is every man's duty to subscribe, if he can, so that you and your children may the sooner be the citizens of a nation victorious and at peace'.¹² Behind the scenes he had some discussions with the Commonwealth Bank about the terms for these loans.¹³

9 At the first federal election, South Australia was not divided into electorates.

10 Weller (ed) (1975). Van der Hoorn (1988), and a columnist in *Punch* 11 August 1910, state he became a pledged Labor member in 1902.

11 Letter from Poynton to banks, 22 December 1916, *Reserve Bank of Australia Archives*, S-19-12.

12 Circular for distribution among employees, 22 December 1916, *RBA Archives*, S-17-2.

13 Letter from Miller to Poynton, 21 December 1916, *RBA Archives*, SMB-20-3.

Once the National Labor and Liberal parties merged in February 1917, the Treasurer's job reverted to the veteran Sir John Forrest, notwithstanding Hughes' low opinion of him.¹⁴ In January 1918, when Hughes fulfilled a promise to resign after his second conscription referendum was rejected, Poynton was among the members sounded out as a possible prime minister, but nothing came of it and Hughes was reappointed.¹⁵ Poynton later served in a variety of junior ministerial posts.¹⁶

While he was not Treasurer long enough to bring down his own budget, he did present the 1919 Budget to parliament on behalf of the then Treasurer, William Watt, who 'had been feeling the strain of administering the Commonwealth for so long'.¹⁷

Poynton was defeated at the 1922 election and largely retired from public life. He passed away in Adelaide on 9 January 1935.

14 Hawkins (2007). Poynton's departure seems to have aroused little opposition. The local press said he 'was shaping exceedingly well in the important office of Treasurer' but seemed assuaged by the appointment of fellow South Australian Glynn to the cabinet; *Advertiser*, 19 February 1917, p 6.

15 Souter (1988, p 157).

16 Honorary Minister from March 1918 to February 1920, Minister for Home and Territories from February 1920 to December 1921, and Postmaster-General from December 1921 to February 1923. He also served as an Acting Minister for the Navy from April 1918 to August 1919 and Assistant Minister for Repatriation from January to September 1919.

17 Smith (1935, p 221).

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What's new on the Treasury website

The Treasury's website, www.treasury.gov.au, includes past issues of the *Economic Roundup*. Some of the other items posted on the website since the previous issue of *Roundup* that may be of interest to readers are listed in the following section.

Budget Statements

<http://www.budget.gov.au/2008-09/content/myefo/html/index.htm>

Mid-Year Economic and Fiscal Outlook 2008-09 (November 2008)

The *Mid-Year Economic and Fiscal Outlook 2008-09* (MYEFO) is prepared in accordance with the *Charter of Budget Honesty Act 1998*. It provides the Australian Government's update on the outlook for the Australian economy and its fiscal position, incorporating data available up to the end of October 2008.

Annual Report

Treasury Annual Report 2007-08 (October 2008)

<http://www.treasury.gov.au/contentitem.asp?NavId=035&ContentID=1430>

The *Treasury Annual Report 2007-08* outlines performance against outcomes, outputs and performance information contained in the Portfolio Budget Statements 2007-08.

The 2007-08 annual report includes the reporting requirements and financial accounts for the Australian Government Actuary and the Foreign Investment Review Board. The financial accounts for the Financial Reporting Panel and the Takeovers Panel are included in this report, however, the performance reporting does not extend to the activities of the Financial Reporting Panel or the Takeovers Panel as they publish their own annual reports.

Review

Review of Credit Rating Agencies and Research Houses (October 2008)

<http://www.treasury.gov.au/contentitem.asp?NavId=035&ContentID=1441>

On 22 May 2008, the Minister for Superannuation and Corporate Law, Senator the Hon Nick Sherry, requested that the Treasury and the Australian Securities and Investments Commission (ASIC) conduct a review into the regulation and operations of credit rating agencies and research houses in Australia.

This review engaged in targeted consultation with selected stakeholders.

The report concludes the review, however, interested parties should go to the ASIC website for further information about what action the regulator is taking in response to the review.

Consultations

<http://www.treasury.gov.au/content/consultations.asp?ContentID=1013&titl=Reviews,%20Inquiries%20%26%20Consultations>

Treasury conducts many consultations on behalf of the Government. The following consultations are open for public comment:

- Exposure Draft of the National Urban Water and Desalination Plan – Urban Water Tax Offset
- Improving the Integrity of Prescribed Private Funds (PPFs) Discussion Paper
- Superannuation Clearing House and the Lost Members Framework
- Demutualisation of Friendly Societies and Capital Gains Tax
- Abolishing the Capital Gains Tax Trust Cloning Exception
- Review of Film Tax Offsets
- Increase Access to the Small Business Capital Gains Tax Concessions via the \$2 million Aggregated Turnover Test
- Taxation of Financial Arrangements – Stages 3 & 4
- Australia's Future Tax System

Sources of economic data

The following table provides sources for key economic data. Australian Bureau of Statistics (ABS) data can be obtained over the internet at <http://www.abs.gov.au>. The Reserve Bank of Australia information is available at <http://www.rba.gov.au>. Similarly, OECD information is available at <http://www.oecd.org>. Information on individual economies is also available via the IMF at <http://www.imf.org>.

International economy	
Output, current account balance and interest rates	OECD Main Economic Indicators
Consumer price inflation	ABS cat. no. 6401.0
National accounts	
Components of GDP, contributions to change in GDP	ABS cat. no. 5206.0
Incomes, costs and prices	
Real household income	ABS cat. nos. 5204.0 and 5206.0
Wages, labour costs and company income	ABS cat. nos. 5204.0, 5206.0 and 6345.0
Prices	ABS cat. nos. 6401.0 and 5206.0
Labour market	ABS cat. no. 6202.0
External sector	
Australia's current account, external liabilities and income flows	ABS cat. nos. 5368.0, 5302.0 and 5206.0

Past editions of *Economic Roundup*

A full index to articles published in *Economic Roundup* was included in the Spring 2006 edition. Details of articles published in recent editions are listed below:

Issue 3, 2008

Economic geography and economic performance in Australia

The resources boom and the two-speed economy

The Commission on Growth and Development and its implications for development in the Pacific

International comparison of industry productivity

How much of the variation in literacy and numeracy can be explained by school performance?

Fiscal space in the G-20

William Higgs: senator and treasurer

Issue 2, 2008

Alternative methodologies for projecting defence spending

Investment in East Asia since the Asian financial crisis

Revisiting the policy requirements of the terms-of-trade boom

Australia's experience in the sub-prime crisis

The economic outlook

Key themes from the Treasury Business Liaison Program — February 2008

Andrew Fisher: a reforming treasurer

Copies of these articles are available from the Treasury. Written requests should be sent to Manager, Domestic Economy Division, The Treasury, Langton Crescent, Parkes, ACT, 2600. Telephone requests should be directed to Mr Chris McLennan on (02) 6263 2756. Copies may be downloaded from the Treasury web site <http://www.treasury.gov.au>.

