STATEMENT ON MONETARY POLICY

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Recent data point to a marked deterioration in world economic conditions in late 2008. Output contracted significantly in the December quarter in the major advanced economies as well as in a number of emerging market economies, and there were unusually sharp falls in international trade and industrial production. The Chinese economy, though still growing, also slowed significantly.

The main factor behind this highly synchronised deterioration in global activity seems to have been the shock to confidence that followed the Lehman Brothers collapse in mid September. The loss of confidence was reflected in sharply declining equity and commodity prices, in survey-based measures of business and consumer sentiment around the world, and in a widespread downturn in private spending. These effects are likely to have been amplified by a cyclical slowdown in China, as well as by tighter conditions in global credit markets, including in relation to trade finance.

The weakening in spending and activity has been accompanied by a significant easing in world inflation. Prices of a range of commodities fell substantially during the December quarter, though they tended to stabilise late in the quarter and in the early part of 2009. Declines in oil prices have helped to bring down CPI inflation rates in most countries, and prices of internationally traded manufactured goods appear to have softened in response to weaker demand conditions.

While the global financial system remains under considerable strain, there have been some signs of an improvement in financial conditions recently. The extreme volatility that affected all markets in October and November following the Lehman's collapse has abated in the past two months. There have also been some signs of improvement in the functioning of credit markets in response to the substantial assistance measures taken by authorities in a number of the major economies. These measures have included injections of capital into financial institutions, the provision of government guarantees and various actions taken by central banks to improve market liquidity. While spreads in money markets remain high, yields have fallen to historically low levels in many countries. Debt issuance at longer terms has picked up, dominated by bonds issued by banks using government guarantees. There has been strong investor interest in these issues, with the spreads to sovereign debt tending to narrow and most offerings being well subscribed. These developments are helping to alleviate uncertainties about the availability of term funding in the world banking system. Australian banks have been among the more significant issuers of guaranteed bonds, with about two-thirds of that issuance being in offshore markets.

As well as measures designed to assist the financial sector, authorities around the world have taken substantial monetary and fiscal policy actions to stimulate their economies. Interest rates have been cut to very low levels in most countries and significant fiscal initiatives have either been announced or are in preparation, including a major package in the United States.

These measures will help to improve the prospects for global recovery over time. Nonetheless, the short-term outlook has clearly weakened over the past few months and official and private-sector forecasts of world growth in 2009 have been revised significantly lower. At this stage it appears likely that global conditions will remain very weak for at least the first half of 2009, though there may be some pick-up later in the year as the expansionary policy measures take hold.

The combination of a severe global downturn and a sharp decline in commodity prices clearly represents a very difficult environment for the Australian economy. Nonetheless, a number of factors are helping to insulate the Australian economy from events abroad. Monetary and fiscal policies are providing substantial stimulus to demand and activity. The Australian financial system remains in better shape than many of its international counterparts, and as a result the monetary transmission process has been working more effectively here than elsewhere. Since the start of the current monetary easing cycle in September, substantial cuts in interest rates have been passed on to household and business borrowers. In contrast, the effect of reductions in policy rates on lending rates in many other countries has been much more limited. Another factor working to dampen the impact of global events on Australia has been the adjustment of the exchange rate, which depreciated by around 20 per cent in trade-weighted terms over the past year. Reflecting these ameliorating factors, the impact of the global crisis on Australia has to date been less than in other advanced economies.

National accounts data up to the September quarter suggest that demand and activity in Australia had been moderating broadly as expected before the recent sharp deterioration in the global economy occurred. GDP had expanded by 1.9 per cent over the year, while domestic demand, though moderating somewhat, was still growing at a relatively high rate of 4 per cent. The moderation up to that point was mainly the result of a slowing in consumer spending, with business and public spending continuing to expand quite strongly. More recent information indicates that the deterioration in global conditions in the December quarter has affected the Australian economy, particularly in the business sector, though in some respects conditions have improved recently in the household sector.

Australian business surveys report a sharp deterioration in confidence in the October/November period, as was occurring around the world. In some cases this has been partially reversed in December and January. The overall deterioration in sentiment has been accompanied by significant reductions in investment intentions. A number of major businesses have announced cutbacks in planned investment, particularly in the mining and construction sectors, and this is confirmed more broadly in business liaison, in non-residential building approvals, and in a range of private-sector surveys. Conditions in the mining sector are being affected by the fall in commodity prices since mid 2008, and there were sharp cutbacks in production in the December quarter in response to weaker external demand. Difficulty in obtaining credit has been a problem for some businesses, particularly in the construction sector, and this appears to have become more widespread in the aftermath of the Lehman's collapse.

In the household sector, disposable incomes are being boosted by the combination of fiscal payments, lower petrol prices and, for indebted households, lower interest rates. After showing little net growth for some months, retail sales picked up significantly through the December quarter. Consumer confidence also improved somewhat over this period, though it remains quite low. The interest rate cut and fiscal measures announced in early February will be adding further to household incomes in the March and June quarters this year.

Short-term indicators of housing construction suggest that activity weakened late last year, and there were modest declines in aggregate house prices. Nonetheless, prospects for the year ahead should be supported by the significant declines in interest rates that have occurred, along with the increase in the first home owners' grant announced in October. A recent pick-up in housing loan approvals and in reported display home traffic suggests that these factors are now starting to add to housing demand.

The labour market has been reasonably resilient to date, with the unemployment rate remaining close to generational lows. Nonetheless, labour market conditions have begun to soften in response to the general slowing in demand and activity. Employment growth slowed in the December quarter and the unemployment rate has been edging up. With job vacancies and hiring intentions falling and short-term economic prospects subdued, more significant rises in unemployment are likely in the period ahead.

Inflation in Australia has been relatively high in the recent period but, as expected, December quarter data indicate that it has begun to moderate. The CPI declined by 0.3 per cent in the quarter, reducing the year-ended rate from 5 per cent to 3.7 per cent. This sharp reversal in the CPI mainly reflected the impact of falling petrol prices in the quarter. Nonetheless, a range of measures confirm that some moderation in inflation is also occurring in underlying terms. Generally, underlying measures showed a quarterly rate of inflation of around ¾ per cent in the December quarter, after four consecutive quarters when it had been at 1 per cent or more.

There are a number of signs that prospects for a further moderation in inflation have improved. Falls in petrol prices are likely to reduce the CPI again in the March quarter, and falling global commodity prices should assist in containing input costs more generally. Earlier pressures on productive capacity are now easing. While the depreciation of the exchange rate represents a countervailing influence, the effect on final consumer prices from that source has to date been relatively muted. This appears to reflect both some softening in global traded goods prices and softer domestic demand conditions. In the non-traded sector there are also some signs of an easing in price pressures, particularly in relation to housing costs. Consistent with these influences, indicators of inflation expectations have generally moderated recently.

In summary, the international situation has deteriorated markedly over the past few months, and this is making for a much more difficult environment for growth of the Australian economy. In these circumstances, Australia's inflation rate is likely to continue to decline.

The Board has responded to these developments with a series of unusually large reductions in the cash rate at its recent meetings. This has brought the monetary policy setting to a position that is providing significant stimulus to the economy, with the cash rate now well below its previous cyclical lows. Substantial pass-through of these reductions to most borrowers over recent months has also seen variable lending rates fall significantly. In the period ahead, the economy will receive a large fiscal stimulus, with the Australian Government announcing further discretionary measures in early February in addition to those announced late last year.

While the international situation is likely to remain difficult for some time, the combination of expansionary monetary and fiscal policies now in place will help to cushion the Australian economy from the contractionary forces coming from abroad.

International Economic Developments

Global economic conditions deteriorated significantly in late 2008. The earlier slowdown in some advanced economies, which was generally concentrated in the housing and financial sectors, broadened to a severe global recession following the financial turmoil that ensued after the collapse of Lehman Brothers in mid September. As a result, the output of Australia's trading partners, weighted by Australia's export shares, is estimated to have declined by around 1¾ per cent in the December quarter (Graph 1).

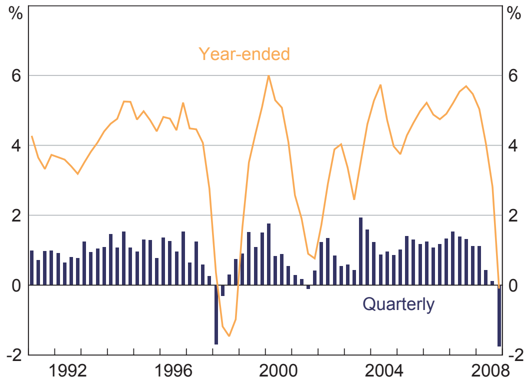
The broad-based economic contraction in the industrialised countries, especially in recent months, can be seen across a range of indicators. Available GDP data for the United Kingdom and United States show declines of 1 per cent or more in the December quarter, while monthly activity indicators point to large contractions in Japan and in the euro area in the quarter. Industrial production in several major countries has weakened sharply in recent months, while surveys of business conditions and consumer confidence have declined to multi-decade lows (Graph 2).

At 1 per cent, the decline in December quarter GDP in the United States was the largest since 1982, with broad-based weakness across the economy. Both the manufacturing and non-manufacturing ISM indices

Graph 1

Australia's Trading Partner GDP*

Percentage change



* Weighted using merchandise export shares at market exchange rates; December quarter 2008 are estimates

Sources: CEIC; IMF; RBA; Thomson Reuters

Graph 2

Selected Major Economies – Activity and Sentiment Indicators*

Standard deviation from long-run average

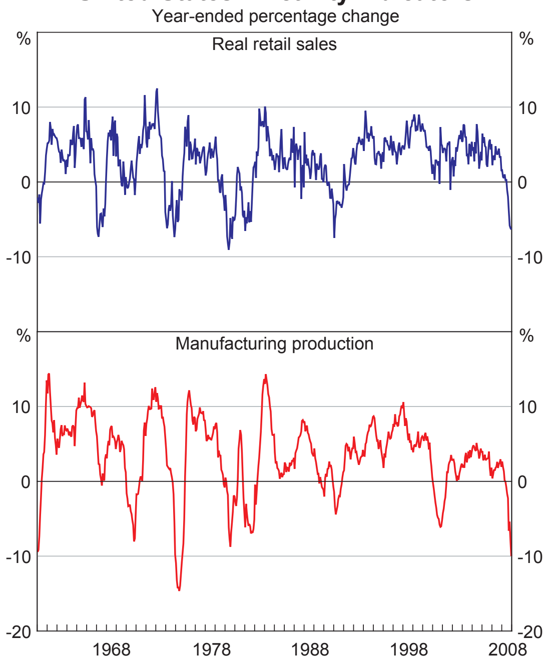
* GDP-weighted average of euro area, Japan, UK and US

** Quarterly data

Sources: IMF; RBA; Thomson Reuters

Graph 3

United States – Activity Indicators



Sources: Global Financial Data; RBA; Thomson Reuters

declined to very low levels in late 2008, before recovering somewhat in January; manufacturing production fell by 10 per cent in the year to December (Graph 3). Consumption has been especially weak, partly driven by declines in household net wealth estimated at more than 15 per cent in 2008, and consumer credit contracted over the four months to November. Housing starts fell by 28 per cent over the two months to December, to be well below previous cyclical lows. The business cycle dating committee of the National Bureau of Economic Research declared in December that the United States has been in recession since December 2007.

A striking development during the past few months is that the downturn has spread to the emerging economies. Korea and Singapore recorded exceptionally large falls in output in the December quarter, while weakness in the second half of 2008 saw year-ended GDP growth in China slow to just under 7 per cent, around half its pace as at mid 2007. The decline in industrial production in some east Asian nations has been sharper than in the industrialised countries; over the three months to December, production fell by around 20 per cent in Korea and Thailand and by more than 25 per cent in Taiwan. Economic conditions have also worsened markedly in emerging Europe, and several countries in that region have sought financial assistance packages from the International Monetary Fund (IMF).

Much of the recent weakness in emerging economies appears to reflect the direct transmission of reduced actual and expected demand from the industrialised economies through the trade channel. The value of the other east Asia region's exports is estimated to have fallen by around 25 per cent between September and December, only part of which can be attributed to valuation effects from exchange rate movements or falling commodity prices. Export values data for Korea and Taiwan in November and December showed falls that were by far the largest observed in a two-month period in these economies in over 20 years of monthly data, and Chinese exports and imports also showed large falls in the last few months of 2008 (Graph 4).

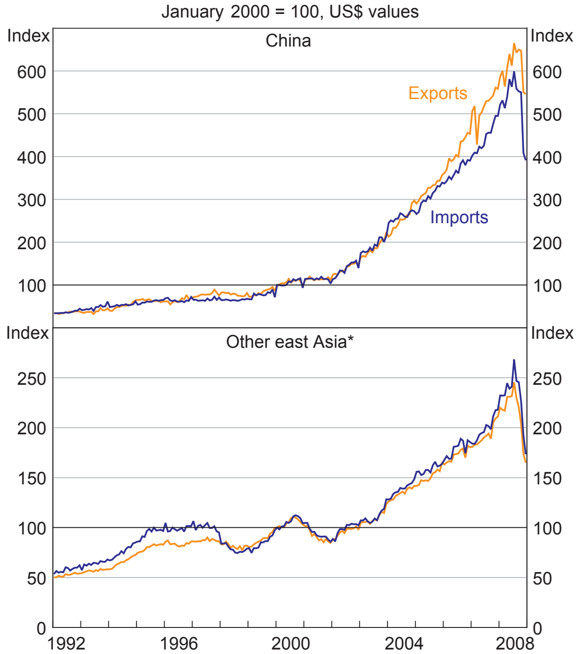
More generally, the Chinese economy experienced a pronounced slowdown in the second half of 2008, with particular weakness in construction, industrial production and trade. This slowdown has reflected both global influences and country-specific factors such as the authorities' earlier efforts to prevent the economy from overheating. Year-ended growth in industrial production declined from 16 per cent in June to just under 6 per cent in December (Graph 5). Recent indicators of construction activity have also weakened, with a sharp decline in the growth of floor space under construction, partly in response to the stagnation in house price growth. However, measures of consumer demand such as retail sales have been surprisingly resilient.

The pronounced decline under way in global output reflects the confluence and intensification of a range of factors, some of which had been weighing on growth for some time. The most important recent factor was the upsurge in financial market turmoil in September and its apparent effect on the already weak level of consumer and business confidence. In many industrialised countries, especially the United States, financial institutions had been tightening lending standards to households and businesses for some time (Graph 6). However, the collapse of Lehman Brothers and widespread problems in other financial institutions saw a further major shock to the supply of credit, notwithstanding the aggressive actions of central banks globally to cut official rates and provide liquidity. This shock manifested itself, amongst other things, in disruptions to trade credit and insurance, as well as a tightening in lending for investment and consumption spending. The sharp decline in production may also reflect efforts by firms to reduce their inventory levels as demand has contracted and the cost and availability of working capital has deteriorated.

Graph 4

East Asia – Trade

January 2000 = 100, US$ values

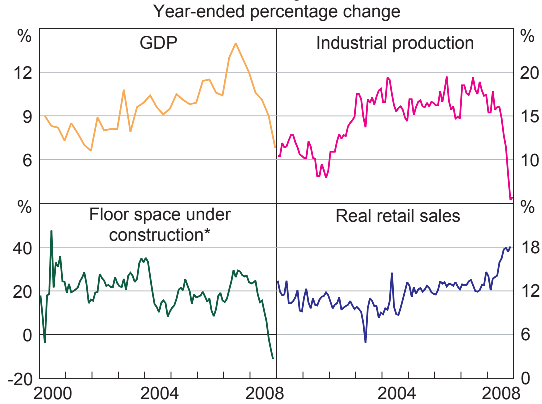


* Excluding Japan
Source: CEIC

Graph 5

China – Activity Indicators

Year-ended percentage change



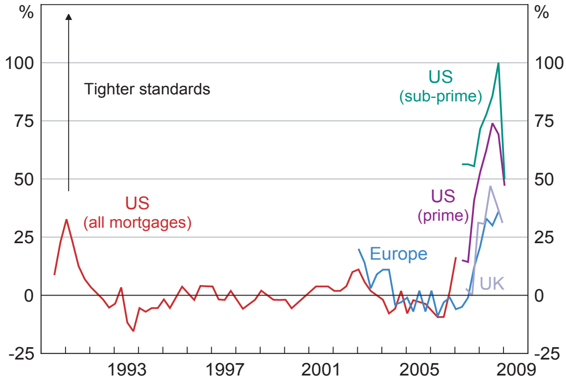
* Smoothed
Sources: CEIC; RBA

Developments during the latter part of 2008 also appear to have triggered a re-evaluation by households and businesses of the likely length and severity of the current downturn. In

Graph 6

Credit Standards for Residential Mortgages*

Net percentage reporting tighter standards**



* US and Europe ask whether *lending standards* have changed. UK asks whether the *supply of credit* has changed.

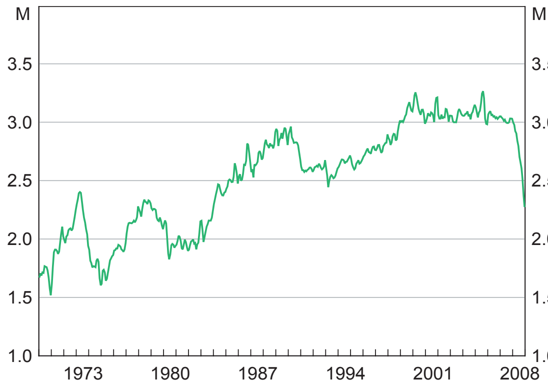
** UK applies twice the weight to a 'considerably' answer relative to a 'somewhat' answer. US and Europe apply an equal weight.

Sources: Bank of England; Board of Governors of the Federal Reserve System; European Central Bank

Graph 7

Car Sales in Major Developed Economies*

Three-month average

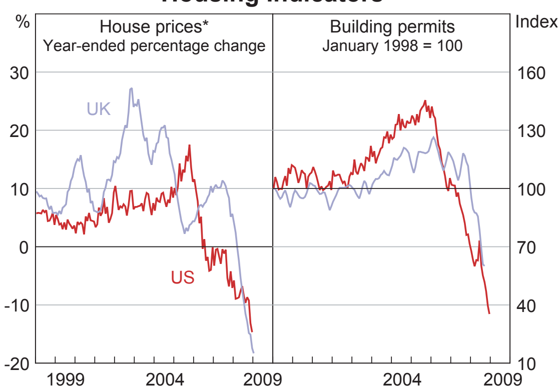


* Canada, euro area, Japan, UK and US; passenger cars only except for US and Canada

Sources: RBA; Thomson Reuters

Graph 8

Housing Indicators



* Median price of existing single-family homes for US; UK data based on Nationwide and Halifax measures

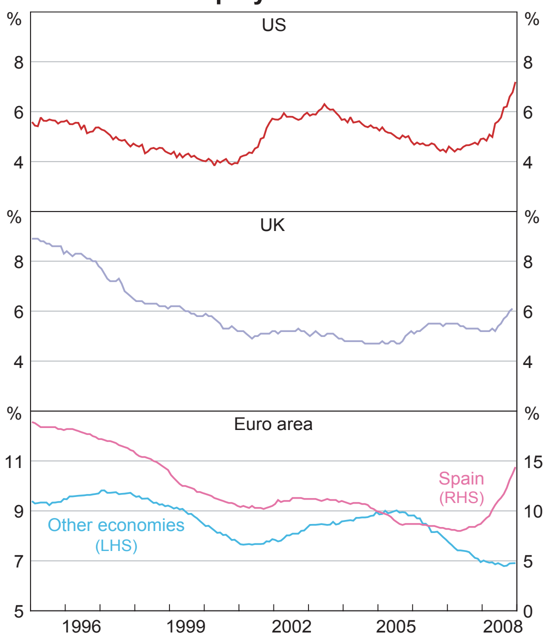
Sources: Eurostat; Thomson Reuters

the household sector, there were large falls in retail sales during the December quarter in many large economies. The decline in spending has been especially large for big-ticket purchases that are relatively easily postponed, such as new cars (Graph 7). This weakness in household spending has reflected the direct impact of an array of headwinds, including reduced confidence, deteriorating income growth and sharp falls in financial and housing wealth. Since their respective peaks, house price declines of 10 to 20 per cent or more (depending on the measure used) have occurred in the United States and United Kingdom, while significant falls have also been observed in other developed economies including New Zealand, Ireland, Spain and several other European nations (Graph 8). Latest indications are that falls in both house prices and building activity are continuing in these countries and spreading to others.

Business conditions and hiring have also weakened markedly in a number of countries, with implications for household consumption and confidence. Business investment has softened, with recent large falls in the United States, Japan and Korea amongst other countries. Further falls in investment are likely in the near term, given the sharply worse outlook for global demand, increasing spare capacity, constraints on the availability of financing and trade credit, and the need to manage inventory levels. For employment, the recent deterioration has been especially severe in the United States, where firms cut their payrolls by almost 2 million in the four months from September to December 2008, a pace of deterioration that is comparable (as a proportion of the labour force) to that experienced in the severe 1981–82 recession. The unemployment rate stood at 7.2 per cent in December, the highest rate since early 1993. In the United Kingdom, the unemployment rate increased by almost 1 percentage point in the six months to November. Unemployment has also risen sharply in Spain and more moderately in Ireland, but has only recently begun to pick up in the rest of the euro area (Graph 9).

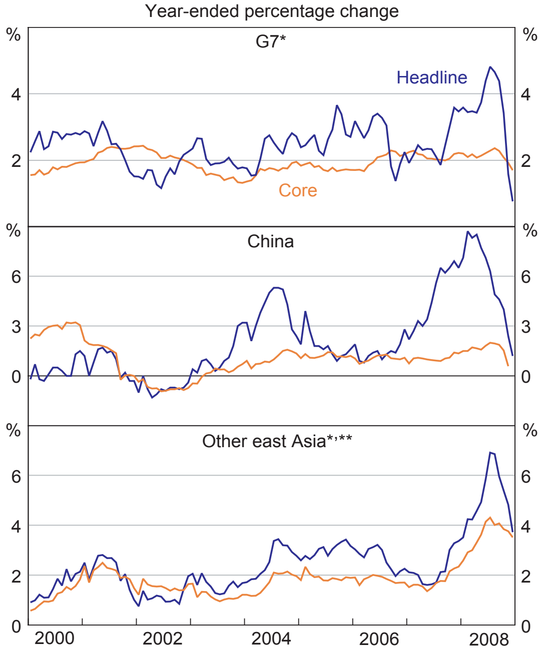
Headline and core inflation in most countries have shifted lower as output growth and global commodity prices have declined (Graph 10). The rapid fall in headline inflation is being primarily driven by the sharp recent declines in oil and some agricultural commodity prices, and thus overstates the moderation in underlying price pressures. Nevertheless, the pace of core inflation in many countries has declined markedly – for example, US consumer prices excluding food and energy were broadly unchanged over the four months to December and year-ended inflation excluding food has fallen sharply in China – suggesting the inflation pressures that were prominent in many economies up to mid 2008 have eased.

Graph 9
Unemployment Rates



Source: Thomson Reuters

Graph 10
Consumer Prices
Year-ended percentage change



* Weighted by GDP at PPP exchange rates, excludes Japan
** Excludes Indonesia
Sources: CEIC; RBA; Thomson Reuters

Policy responses and forecasts

In response to the deterioration in current and prospective economic conditions, central banks globally have moved aggressively to ease financial conditions and support credit growth, as discussed in detail in the 'International and Foreign Exchange Markets' chapter. In addition governments have enacted, or are in the process of finalising, substantial budget packages to support aggregate demand and production, over and above the operation of automatic fiscal stabilisers (Table 1).

Table 1: Discretionary Fiscal Easing in Selected Countries
Per cent of GDP

	Estimated easing in 2009[a]
United States	over 2
United Kingdom	over 1
Germany	1½
Japan	1¼
China	over 2
South Korea	over 2
Taiwan	over 2

(a) Based on policy announcements and media reports

At the federal level in the United States, the budget deficit increased by 2 percentage points of GDP in the year to September 2008, to be 3.2 per cent. US authorities are now debating a discretionary easing amounting to around 5 per cent of annual GDP over the course of 2009 and 2010. If enacted, this could see the fiscal deficit in 2009 reach its highest level in the post-war period – even before accounting for funding costs associated with the Troubled Asset Relief Program (TARP). In the United Kingdom, the public sector borrowing requirement is projected to rise to 8 per cent of GDP in the fiscal year to March 2010.

Many Asian nations have also announced substantial fiscal easings. In early November, Chinese authorities announced a stimulus package spread over 2009 and 2010, with most observers assessing the associated fiscal impulse to be in excess of 2 percentage points of GDP in 2009. Discretionary policy measures with an impact of over 2 percentage points of GDP have also been announced in Korea and Taiwan, while other governments in Asia and elsewhere have enacted generally smaller but still significant discretionary budget packages.

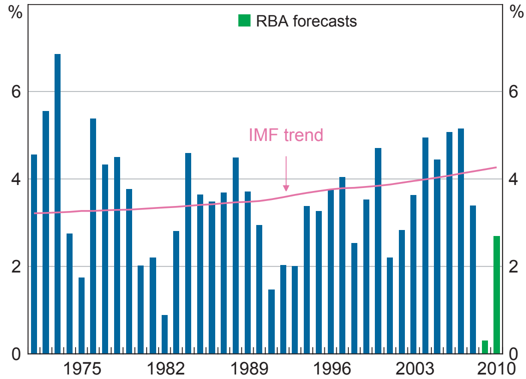
Despite this large monetary and fiscal stimulus, growth forecasts by both the IMF and private-sector analysts have been lowered substantially in recent months. After a significant unscheduled cut to its forecasts in November, the IMF further reduced its projection for world growth in 2009 (with countries weighted by GDP valued at purchasing power parities) by an additional 1¾ percentage points in late January, to only ½ per cent; world output based on market exchange rates is projected to contract by ½ per cent in 2009. If realised, this would make 2009 the weakest year for growth in the global economy in the post-war era. Relative to trend rates of growth, the IMF anticipates similar-sized slowdowns in the advanced and emerging groups of countries. The Bank's forecasts, outlined in the 'Economic Outlook' chapter, also assume a markedly weaker outlook for global growth in 2009. Thereafter, the recovery from 2010 is expected to be quite subdued, in line with the typical profile of recessions associated with major disruptions to credit and financial markets (Graph 11).

The large degree of synchronisation of the global downturn is evident in the high share of Australia's trading partners that are expected to record growth in 2009 well below their trend rates. Following an unusually long period of uniformly strong economic performance around the world, almost all of Australia's major trading partners are expected to experience growth rates of 2 percentage points or more below trend rates in 2009. This would represent the most synchronised downturn in Australia's trading partners since the mid 1970s (Graph 12).

Graph 11

World GDP

Year-average percentage change

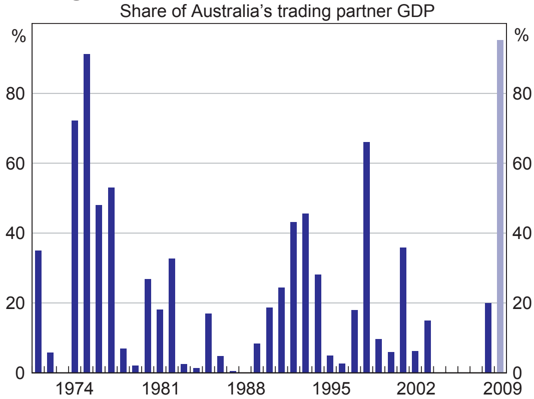


Sources: IMF; RBA

Graph 12

Trading Partners with Well-below Trend Growth*

Share of Australia's trading partner GDP



* More than 2 percentage points below rolling 10-year average growth; 2009 data based on RBA forecasts

Sources: CEIC; RBA; Thomson Reuters

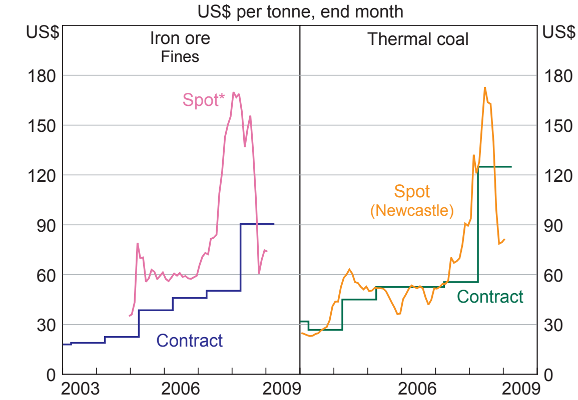
Commodity prices

In line with this deterioration in global economic conditions and prospects, commodity prices are lower than at the time of the publication of the previous *Statement*. Much of this easing occurred in November and early December, with prices remaining broadly stable since then. Over the period, oil and base metals prices have moved noticeably lower, with developments mixed for coal, iron ore and rural commodities. Bulk shipping prices have shown tentative signs of stabilising after falling sharply over a number of months.

Spot prices for iron ore and coal – Australia's two largest exports – are well below the 2008/09 contract prices. Adjusting for freight costs, the US dollar-denominated spot prices of iron ore and thermal coal are around 20 to 35 per cent below the current contract prices, although they have increased somewhat in recent weeks (Graph 13). The general weakness in these markets reflects the global slowdown in industrial production, particularly in the steel market. This has resulted in announced iron ore cuts equivalent to roughly 10 per cent of annual production by Australian producers, and production in Brazil has also been reduced. In addition, a number of metallurgical coal operators have revised down their planned production in 2009. Significant declines in the upcoming contract prices are expected for both coal and iron ore. Nonetheless, present expectations for the 2009/10 bulk contract prices would still leave US dollar export

Graph 13
Bulk Commodity Prices

US$ per tonne, end month

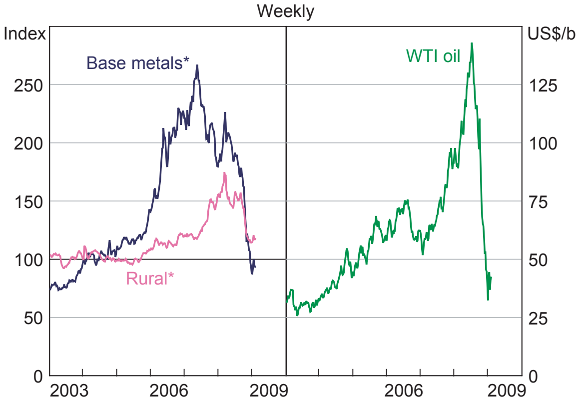


* Calculated using the spot import price in China less the spot freight rate from Australia to China

Sources: ABARE; Bloomberg; RBA

Graph 14
Commodity Prices

Weekly



* 2 January 2004 = 100, SDR terms

Sources: Bloomberg; RBA

prices at a high level by historical standards and above the prices that prevailed as recently as early 2007/08.

Base metals and oil prices have recorded large declines. The RBA index of base metals prices has fallen by 25 per cent over the past three months, led by aluminium, copper and lead (Graph 14). Rising inventory levels have continued to put downward pressure on prices and, with the demand outlook soft, further cuts to production have been announced by base metals producers, including some Australian operators. In contrast, 'safe haven' flows have continued to support gold prices as conditions in financial markets remain strained. Oil has recently traded around US$40 a barrel, a level last seen in early 2005, after picking up to a record high of around $145 a barrel in mid 2008.

International and Foreign Exchange Markets

At the time of the last *Statement*, international financial markets were extremely dislocated following the collapse of Lehman Brothers. Volatility was at historical highs in most markets and there was a widespread sapping of public confidence in the financial systems of several major economies, as well as between financial markets participants. This period of extreme dislocation lasted until late November. Since then financial markets have begun to respond to a large number of government and central bank measures aimed at stabilising the financial system and supporting economic activity. However, confidence in financial markets remains fragile, with significant concerns remaining about the quality of bank balance sheets as a result of the weakness in the global economy.

Central bank policy actions

Since the time of the previous *Statement*, central banks in both developed and emerging markets have eased monetary policy as the outlook for economic activity has deteriorated further and inflationary pressures have subsided. In the major economies, central banks have lowered policy rates significantly (Table 2). With policy rates at or near zero in a number of cases, central banks have implemented new measures, and modified existing ones, with the aim of addressing the ongoing problems experienced by financial markets.

In the United States, the Federal Open Market Committee (FOMC) lowered its policy rate from 1 per cent to a target range of 0 to ¼ per cent. This has taken the cumulative reduction since the onset of the financial crisis to over 500 basis points. In its statement, the FOMC said that the federal funds rate is likely to remain at exceptionally low levels for some time in

Table 2: Changes in Monetary Policy

	Current level Per cent	Change since start of easing cycle Basis points	Expectations for next 6 months
United States	0.125	↓ 513	No change
Euro area	2.00	↓ 225	↓ 50 bps
Japan	0.10	↓ 40	No change
United Kingdom	1.50	↓ 425	↓ 50 bps
Canada	1.00	↓ 350	↓ 50 bps
Sweden	2.00	↓ 275	↓ 100 bps
Switzerland	0.50	↓ 225	No change
Norway	2.50	↓ 325	na
New Zealand	3.50	↓ 475	↓ 100 bps

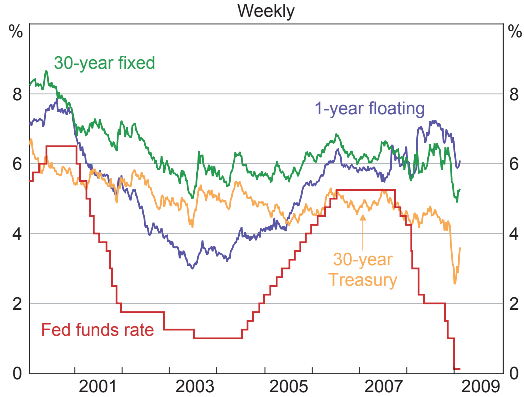
Sources: Bloomberg; Thomson Reuters; central banks light of the further deterioration in economic conditions, moderation in inflationary pressures and continued strains in financial markets. In line with these developments, markets expect the policy rate to remain near zero in the period ahead.

Despite the significant easing in monetary policy, mortgage rates in the United States were still at elevated levels in late 2008 (Graph 15). In part because of this breakdown in the transmission mechanism, the Fed has shifted the focus of its policy actions towards measures it describes as 'credit easing'. The Fed has emphasised that it is the composition of its balance sheet, rather than its overall size, that is important for the policy objective of supporting credit markets and economic activity, in contrast to the Japanese policy of quantitative easing, which was in place in the early 2000s.[1]

Graph 15

US Mortgage Interest Rates

Weekly

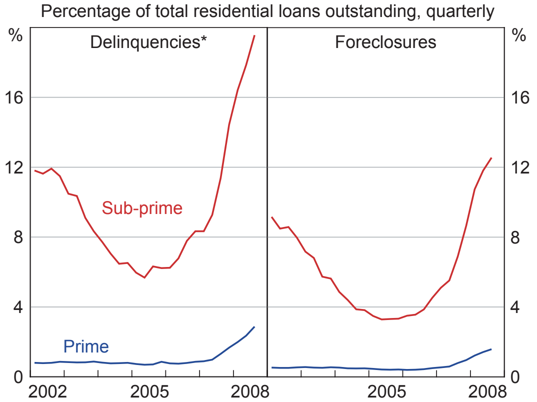


Source: Bloomberg

Graph 16

US Mortgage Delinquencies and Foreclosures

Percentage of total residential loans outstanding, quarterly



* Loans in arrears for more than 90 days

Source: Bloomberg

In this regard, in early January, the Fed started buying Agency-guaranteed mortgage-backed securities (MBS) outright as part of its program, announced in late November, to purchase up to US$500 billion of these securities and US$100 billion of bonds issued by Agencies. The program is intended to increase the availability and reduce the cost of housing credit. Mortgage rates have declined somewhat since this program was announced but nonetheless remain elevated relative to the policy rate (see Box B). Moreover, conditions in the US residential mortgage market – the trigger for the current financial turmoil – have deteriorated further, with both delinquencies and foreclosures continuing to rise and property prices falling further (Graph 16).

This MBS-purchasing program follows the introduction of other Fed facilities designed to support the commercial paper market. Demand for these facilities has grown and has had some success in restoring conditions in the commercial paper market, with issuance in that market

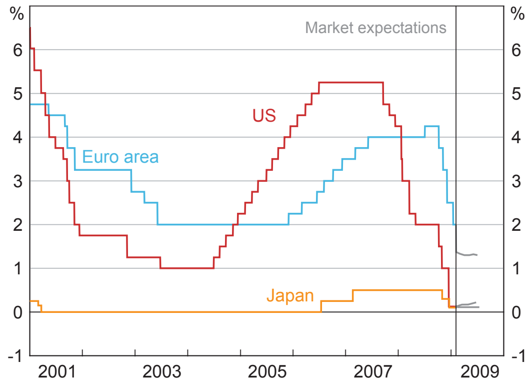
1 *For more on recent developments in the Fed balance sheet and policy instruments, see 'Box A: Developments in the US Federal Reserve's Instruments',* Statement on Monetary Policy, *Reserve Bank of Australia, November 2008, pp 21–22.*

improving in recent weeks. In contrast, demand for US dollars via repurchase agreements, the Term Auction Facility, the Discount Window and the Primary Dealer Credit Facility has recently fallen, as has demand for US dollars under the Fed's co-ordinated swap facility with other central banks (see below). These developments are consistent with some improvement in short-term money markets.

In conjunction with the US Treasury, the Fed has announced the introduction of the Term Asset-backed Securities Loan Facility (TALF), by which it intends to support lending to consumers and small businesses by purchasing up to US$200 billion of newly originated asset-backed securities (ABS) collateralised by auto and student loans, credit card receipts and certain small business loans. The US Treasury has committed US$20 billion of Troubled Asset Relief Program (TARP) funds to the program in order to provide credit protection to the Fed by absorbing the first losses.

In the euro area, the European Central Bank (ECB) has reduced its policy rate on three occasions since the previous *Statement*, lowering rates by a cumulative 175 basis points to 2 per cent (Graph 17). Market participants currently expect further reductions of 50 basis points over the next few months. The ECB has announced that it will continue to provide as much liquidity as demanded through its regular open market operations, which will continue as fixed-rate auctions until at least the end of March 2009.

Graph 17
Policy Rates



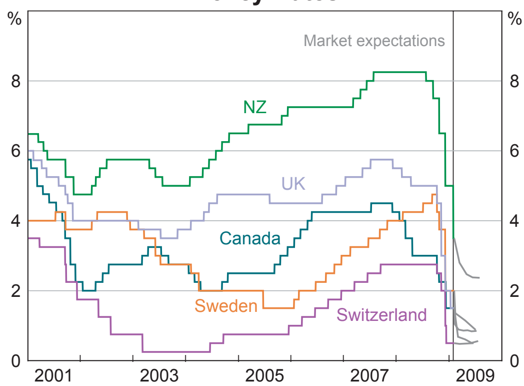
Sources: Bloomberg; central banks

The Bank of Japan (BoJ) reduced its policy rate by 20 basis points in December to 0.1 per cent, where it is expected to stay for the period ahead. The BoJ has also introduced several measures to facilitate corporate financing. These include: expanding the list of corporate debt that can be used as collateral in the BoJ's market operations; introducing new term-funding operations that offer unlimited amounts of funding for up to three months against corporate debt collateral; and buying commercial paper outright. In addition, the BoJ has increased its outright purchases of an expanded range of Japanese government bonds and has decided to resume its purchases of equities from banks.

In the United Kingdom, the Bank of England (BoE) has lowered its policy rate on three occasions since the previous *Statement* by a total of 300 basis points to an historic low of 1½ per cent (Graph 18). The BoE noted that credit availability had tightened further and that inflationary pressures have continued to ease as the United Kingdom's economic downturn has gathered pace. Despite a cumulative easing of 425 basis points since December 2007, borrowing rates have fallen by considerably less. Currently, the market expects a further 50 basis point reduction in the BoE's policy rate over the next few months. With its policy rate falling to such low levels,

Graph 18

Policy Rates



Sources: Bloomberg; Thomson Reuters; central banks

the BoE has announced that it too is considering a number of additional measures it might take to address the financial dislocation, including the direct purchase of up to £50 billion of a range of assets including debt issued under the Government's guarantee, other commercial paper and corporate bonds, syndicated loans and a limited range of ABS. The Special Liquidity Scheme, under which financial institutions could swap illiquid assets for government securities, ended as planned at end January, although the term of swaps under the Discount Window has been extended from three months to one year for an additional fee of 25 basis points.

Policy rates have also been lowered elsewhere in Europe in response to the deteriorating outlook for economic activity and abating inflationary pressures. The Swiss National Bank cut rates by a cumulative 200 basis points to ½ per cent. It said it was contemplating a number of additional forms of stimulus including intervening to put downward pressure on the Swiss franc. Sveriges Riksbank reduced rates by 175 basis points in December, taking its policy rate to 2 per cent, while the central banks of Norway and Denmark cut rates by a cumulative 225 basis points and 250 basis points, respectively, to 2½ per cent and 3 per cent.

The Bank of Canada (BoC) and the Reserve Bank of New Zealand (RBNZ) lowered their policy rates by 125 basis points and 300 basis points, to 1 per cent and 3½ per cent, respectively. Further reductions in rates are expected from both central banks, with the market anticipating that the BoC will cut rates by 50 basis points, and the RBNZ by 100 basis points, over the next six months. Both these central banks have introduced new term-funding facilities and the RBNZ has expanded the list of eligible collateral for its domestic market operations to include government-guaranteed securities, and certain corporate and asset-backed securities.

Central banks in many emerging markets have also eased policy (Table 3). The People's Bank of China has eased policy twice since the previous *Statement*, reducing its lending and deposit rates by 135 basis points to 5.31 per cent and 2.25 per cent, respectively. It has also reduced its reserve requirement ratio to 15½ per cent for large banks and 13½ per cent for small banks. The central banks of Brazil, Chile and Mexico cut interest rates for the first time since the onset of the financial crisis after they judged that inflationary pressures had eased. Other emerging market central banks that have cut rates include those of the Czech Republic, Hungary, India, Indonesia, Israel, Korea, Malaysia, the Philippines, Poland, South Africa, Taiwan, Thailand and Turkey. In contrast, the Russian central bank has tightened policy twice since the previous *Statement*, attempting to stem capital outflow and to mitigate downward pressure on the exchange rate.

Table 3: Emerging Market Monetary Policy Changes

	Change since previous *Statement* Basis points	Current level Per cent
Brazil	↓ 100	12.75
Chile	↓ 100	7.25
China	↓ 135	5.31
Czech Republic	↓ 125	2.25
Hungary	↓ 200	9.50
India	↓ 200	5.50
Indonesia	↓ 125	8.25
Israel	↓ 250	1.00
Malaysia	↓ 100	2.50
Mexico	↓ 50	7.75
Philippines	↓ 100	5.00
Poland	↓ 175	4.25
Russia	↑ 200	13.00
South Africa	↓ 50	11.50
South Korea	↓ 175	2.50
Taiwan	↓ 150	1.50
Thailand	↓ 175	2.00
Turkey	↓ 375	13.00

Sources: Bloomberg; central banks

Central bank actions designed to ease tensions in offshore markets for US dollars appear to be proving successful, with the amount of US dollars provided to other central banks under the Fed's swap facility declining since early December.[2] By early January, several central banks – including the RBA – were receiving no bids in some of their US dollar auctions. Nonetheless, the Fed has announced an extension of the swap lines until October 2009.

Government financial policy actions

Governments across the world have continued to unveil new measures and modify existing measures aimed at stabilising their banking sectors. Both injections of equity, usually in the form of preferred shares, and usage of government guarantees on newly issued bank debt have been extensive, with global issuance of guaranteed bank debt over US$300 billion since October (see below). Nonetheless, bank share prices, particularly in the United States and the United Kingdom, have come under significant pressure on concerns about future losses. Rating agencies have recently downgraded the ratings and outlooks of a number of major US and European banks. While acknowledging the benefits of government support for these systemically important banks, the rating agencies believe that the increased regulatory pressure for them to deleverage and restrict certain business activities will lead to structurally lower profitability.

2 *For more on the US dollar swap arrangements between central banks, see 'Box B: US Dollar Swap Arrangements between Central Banks',* Statement on Monetary Policy, *Reserve Bank of Australia, November 2008, pp 23–25.*

In the United States, the full US$700 billion available under the TARP has now been released by the US Congress, with around half of that amount already disbursed (Table 4). To date, the US Treasury has focused on using these funds to recapitalise the US financial system. In particular, it has invested US$195 billion in the form of senior preferred shares in 361 institutions, including nine of the largest US banks. The US Treasury has also established other programs to support institutions whose failure would likely cause severe disruptions to the financial system. Under one of these new programs, Citibank and Bank of America (BoA) have received a further US$20 billion of capital each. The US authorities have also provided each of these banks with insurance against unusually large losses on pools of their (on balance sheet) assets: each bank bears the initial losses on the insured assets – the first US$29 billion of losses in the case of Citibank and the first US$10 billion in the case of BoA – and any further losses will be shared between the bank and the Government, with the Government bearing most of the burden. In the case of Citigroup, US$5 billion has been allocated for this contingency. In addition, TARP funds have been committed to: facilitate a capital restructure of AIG; provide credit protection to a Fed special purpose vehicle under the TALF; and provide support for the US auto companies, including their financing arms.

In mid January, the UK Government announced a second package to assist the financial sector following the initial measures introduced in October 2008. Measures proposed in the package include: an extension to the end of 2009 of the credit guarantee under which financial

Table 4: Disbursement of Funds under the Troubled Asset Relief Program (TARP)
US$ billion

(a) Capital Purchase Program		250
– bank recapitalisation	195	
– remainder to be disbursed	55	
(b) Other programs		**450**
– Systemically Significant Failing Institutions	40	
– American International Group		
– Targeted Investment Program	40	
– Citigroup and Bank of America		
– Term Asset-backed Securities Loan Facility	20	
– credit protection to Fed special purpose vehicle		
– Automotive Industry Financing Program	25	
– General Motors; GMAC; Chrysler; Chrysler Financial		
– Asset Guarantee Program	5	
– Citigroup		
– remainder to be disbursed	320	
Total TARP		**700**

Source: US Department of the Treasury

institutions can issue debt; the guarantee of certain AAA-rated ABS; Government insurance against losses on certain assets under specified arrangements; BoE purchases of up to £50 billion in certain assets on behalf of the Treasury; and a restructure of Northern Rock's business plan such that it is no longer required to reduce its lending. The UK Government also announced that it will convert its preference shares in Royal Bank of Scotland to common shares, thereby increasing the bank's core tier 1 capital and taking the Government's stake to around 70 per cent.

Ireland, which was the first country to provide a guarantee on bank debt, has more recently announced a €10 billion package to recapitalise the country's banks. So far, the Irish Government has said that it will invest a total of €4 billion in new preference shares in two of the country's banks and has nationalised a third. The recapitalised banks have agreed to a credit package, which includes providing additional capacity for lending to small and medium businesses and first-home buyers. In continental Europe, German and French banks, among others, have continued to receive capital injections. Korea has also announced plans to recapitalise its banking system.

Government-guaranteed bond issuance

There has been significant issuance of government-guaranteed bonds by financial institutions since the last *Statement*. The monthly value of guaranteed bond issuance is currently substantially higher than the average monthly bond issuance by banks in the pre-crisis period of around US$50 billion. Spreads on US dollar-denominated issuance fell sharply in December, and have narrowed again in recent weeks (Graph 19). However, yields remain well above sovereign yields, notwithstanding the fact that these issuances are fully backed by governments.

In the United States, total issuance under the FDIC's Temporary Liquidity Guarantee Program currently stands at the equivalent of over US$130 billion, with US dollar-denominated issues trading at spreads of between 60 and 100 basis points to Treasuries with equivalent maturity (Table 5). European financial institutions have also raised debt under various government guarantee programs. Issuance under the British and French programs is currently over US$30 billion in each case. The majority of euro issues are trading at spreads of between 70 and 125 basis points to equivalent Bunds, while sterling issues are trading at spreads of between 80 and 100 basis points to equivalent Gilts.

Graph 19

Bond Spreads on Selected US Financials

3-year bond spread to US Treasuries

* Simple average for a sample of 5 US banks

Sources: RBA; Thomson Reuters

Table 5: Government-guaranteed Bank Bonds by Domicile of Issuer

	Issuance US$ billion
United States	134.5
France	38.1
Australia	38.0
United Kingdom	33.2
Germany	12.9
Sweden	9.6
Netherlands	9.5
Ireland	7.5
Austria	7.1
Norway	3.9
Portugal	3.5
Switzerland	2.6
Spain	2.6
Finland	1.6
Total	**304.6**

Sources: Thomson Reuters; RBA

Sovereign debt markets

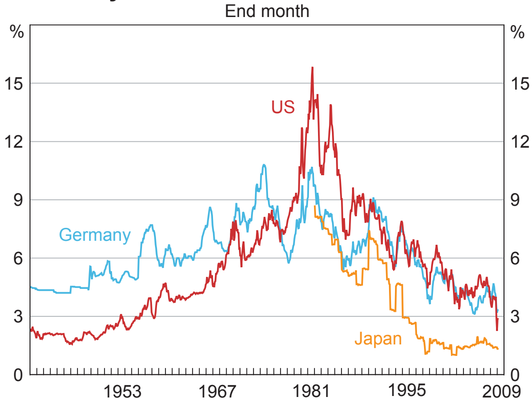
Yields on government bonds in the major developed economies have declined since the previous *Statement*, reflecting the deteriorating outlook for economic growth and the abatement of inflationary pressures. The aggressive reduction in policy rates, in conjunction with expectations that these rates will remain low for an extended period of time, has led to steep falls in the yields on short-term government bonds in the major developed economies. Yields on longer-term government bonds have also fallen: yields on 10-year US government bonds fell by as much as 160 basis points to their lowest level since 1950 (Graph 20); and yields on 10-year German government bonds fell by as much as 80 basis points to their lowest level since 1923. In recent weeks, yields on 10-year bonds have retraced some of these falls.

Spreads between the yields on sovereign debt of other countries in the European Monetary Union (EMU) and German sovereign debt widened significantly to reach their highest levels since the formation of the Union in many cases (Graph 21). The widening reflects increasing investor concern about the impact of the global economic slowdown and government debt guarantees on the budget deficits and levels of public debt in euro area countries. Citing these issues, the rating agency Standard & Poor's downgraded the sovereign credit ratings of Greece, Spain and Portugal, and placed Ireland's sovereign debt rating on negative watch in January.

Graph 20

10-year Government Bond Yields

End month



Sources: Bloomberg; Global Financial Data

Spreads on US dollar-denominated sovereign debt of emerging economies in Asia, Europe and Latin America increased sharply in the second half of 2008 as the economic slowdown, which until then had mainly affected developed economies, extended to emerging markets and risk appetite retracted (Graph 22). Spreads have narrowed from their November peaks as appetite for riskier assets has returned to some extent and several emerging markets have issued US dollar-denominated debt recently. However, spreads remain elevated relative to the levels observed over the preceding two years.

Credit markets

Despite the deterioration in the global economic outlook since the last *Statement*, spreads across most credit markets have narrowed somewhat, indicating that policy actions designed to improve conditions in these markets are having some effect. In interbank markets, spreads between LIBOR and the expected cash rate have declined significantly since the time of the last *Statement*, although they remain well above pre-crisis levels (Graph 23). A noticeable increase in lending volumes at maturities out to six months is a further sign of improvement in conditions in these markets.

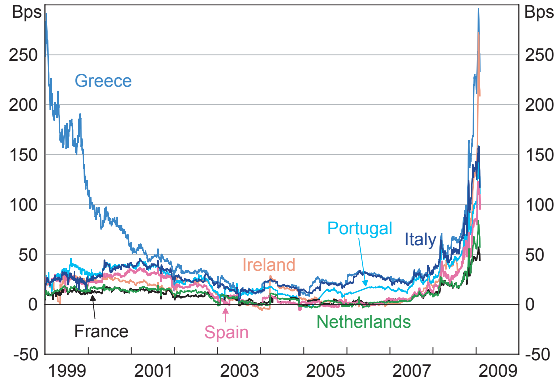
In response to severe pressures in the US commercial paper market, the Fed introduced a number of initiatives that, in conjunction with the overall improvement in money markets as noted, have helped to reverse part of the deterioration in conditions. Issuance of commercial paper with longer maturities has increased and spreads have declined to below the levels that have prevailed since the onset of the financial crisis (Graph 24).

In the United States, and elsewhere, longer-term corporate bond yields have also fallen from

Graph 21

European Government Bond Spreads

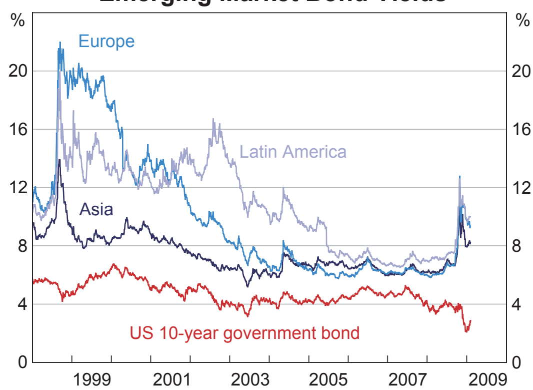
To 10-year German bunds



Source: Bloomberg

Graph 22

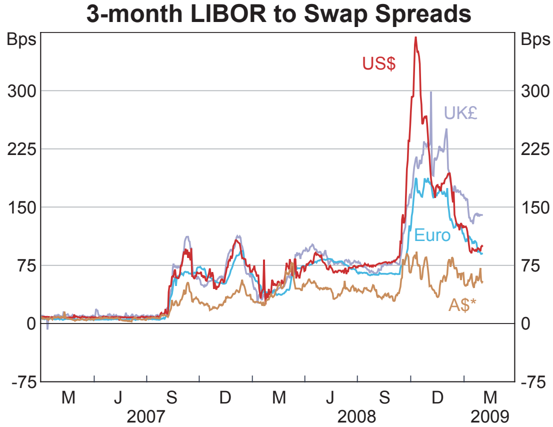
Emerging Market Bond Yields



Sources: Bloomberg; Thomson Reuters

Graph 23

3-month LIBOR to Swap Spreads



* Bank bills to overnight indexed swaps

Sources: Bloomberg; Thomson Reuters; Tullett Prebon (Australia) Pty Ltd their peaks in late November, led by the falls in government bond yields (Graph 25). The spreads between these yields and yields on US Treasuries have also fallen from their multi-year highs of November. However, global issuance of unguaranteed debt remains weak. There was little private issuance of MBS in the United States in the second half of 2008, and most issuance of MBS in the United Kingdom and Europe continues to be in the form of self-securitisations by institutions looking to access central bank funding.

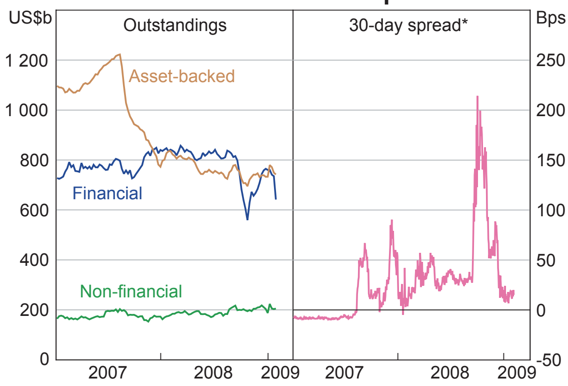
Equities

From October to early December last year, volatility in equity markets was higher than at any time since at least the 1980s (see Box A); on 1 December 2008 the S&P 500 fell by 9 per cent, the second largest daily fall since the 1987 stock market crash, in response to the release of poor economic data in the United States. Since the last *Statement*, the Nikkei index has fallen to its lowest level since 1982; the S&P 500 to its lowest level since 1997; and the Euro STOXX to its lowest level since 2003 (Graph 26, Table 6). More recently, equity markets have broadly moved sideways.

Share prices of financial companies have fallen by more than those in other sectors, in part because various government recapitalisations have diluted the equity of existing shareholders and financial institutions in the United

Graph 24

US Commercial Paper



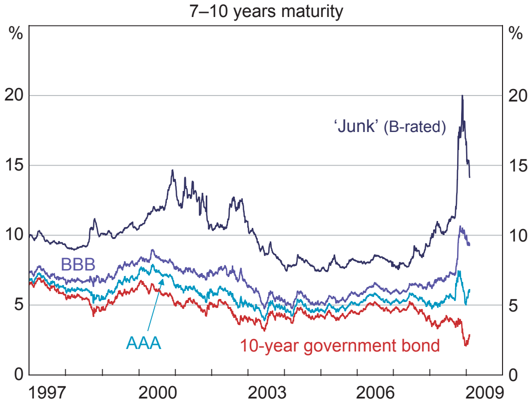
* Average spread over expected policy rate on AA-rated asset-backed, financial and non-financial commercial paper

Source: Board of Governors of the Federal Reserve System

Graph 25

US Corporate Bond Yields

7–10 years maturity

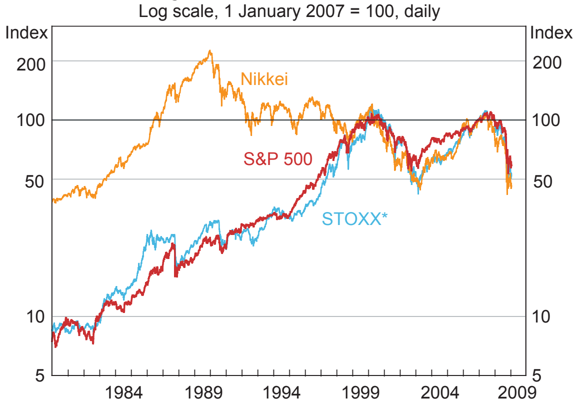


Sources: Bloomberg; Merrill Lynch

Graph 26

Major Share Price Indices

Log scale, 1 January 2007 = 100, daily



* DAX index before 1987

Source: Bloomberg

States, euro area and United Kingdom have continued to report large losses. The share prices of many banks in these economies are between 80 per cent and 90 per cent lower than they were prior to the crisis. The large appreciation of the Japanese yen has contributed to the losses on Japanese equities as a number of large exporters with substantial foreign revenue sources revised their earnings forecasts sharply lower.

In the United States, the declines in equity prices have outpaced the falls in earnings, with the result that price/earnings (P/E) ratios have fallen to levels around their long-term averages (Graph 27). The same is true for many other developed economies.

The performance of equities in emerging markets has been mixed since the previous *Statement* but share prices have, in general, fallen as the economic slowdown in developed countries has reduced exports from emerging markets and commodity prices have declined. Equities in emerging Europe have experienced the largest losses because of concerns about the sustainability of large current account deficits in a number of economies in that region and lost export earnings due to sharply lower commodity prices. On the other hand, Latin American equities have rebounded from their late November lows as central banks in the region have begun to reduce policy rates

Table 6: Changes in Global Share Prices
Per cent

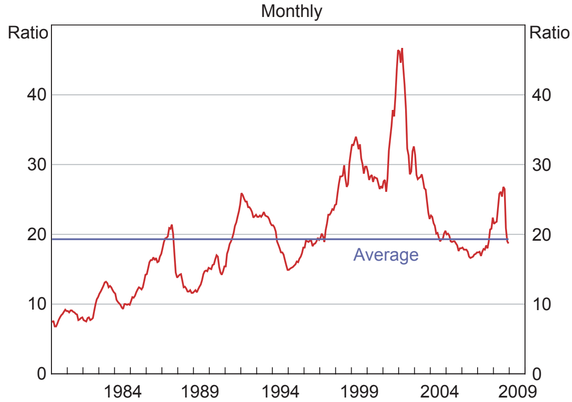
	Since recent peak	Since previous *Statement*
United States		
– Dow Jones	–44	–13
– S&P 500	–47	–13
– NASDAQ	–47	–10
Euro area		
– STOXX	–52	–15
United Kingdom		
– FTSE	–37	–7
Japan		
– Nikkei	–56	–16
Canada		
– TSE 300	–42	–12
Australia		
– ASX 200	–50	–21
MSCI Emerging Asia	–54	–5
MSCI Latin America	–44	2
MSCI Emerging Europe	–70	–29
MSCI World	–48	–13
MSCI World Financials	–67	–29

Source: Bloomberg

Graph 27

S&P 500 P/E Ratio*

Monthly



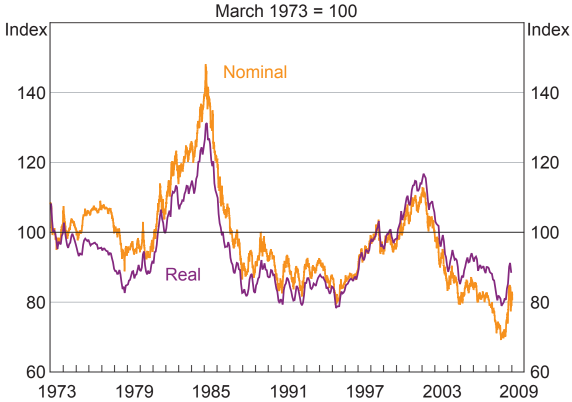
* Based on reported earnings over the previous four quarters

Source: Standard & Poor's

Graph 28

US Major TWI

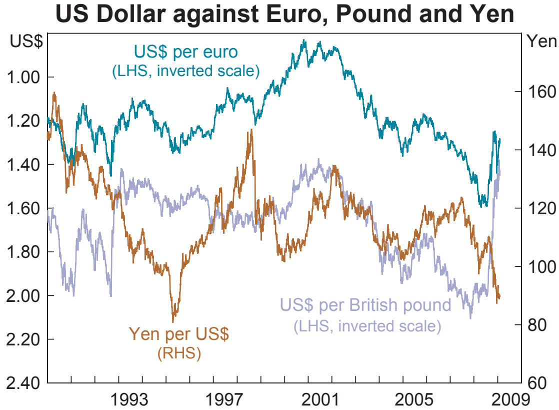
March 1973 = 100



Source: Board of Governors of the Federal Reserve System

Graph 29

US Dollar against Euro, Pound and Yen



Sources: Bloomberg; RBA

for the first time since the onset of the financial crisis, leaving equity markets largely unchanged over the past three months.

Foreign exchange

After peaking in late 2008, volatility in foreign exchange markets has subsided, but remains at high levels. In this environment of high volatility, the yen and Swiss franc have appreciated significantly against most other currencies, including the US dollar, partly as a result of further unwinding of carry trade positions and low risk appetite (Table 7). The US dollar depreciated in December 2008, possibly reflecting an easing in flows associated with the repatriation of offshore investments that had led to its appreciation through much of the second half of 2008. Since the beginning of 2009, however, the US dollar has appreciated, and is little changed in trade-weighted terms since the last *Statement* (Graph 28). The US dollar is now 19 per cent above the lows reached in March 2008. In contrast, the British pound depreciated to its lowest levels against the US dollar since 1985 and to its lowest level against the euro since the formation of the EMU, as the financial and economic outlook for the United Kingdom deteriorated more rapidly (Graph 29).

Asian currencies were mixed against the US dollar (Graph 30). The Indonesian rupiah and Korean won fell to their lowest levels since 1998 in November. They rebounded in December and early January, as risk appetite briefly improved, but

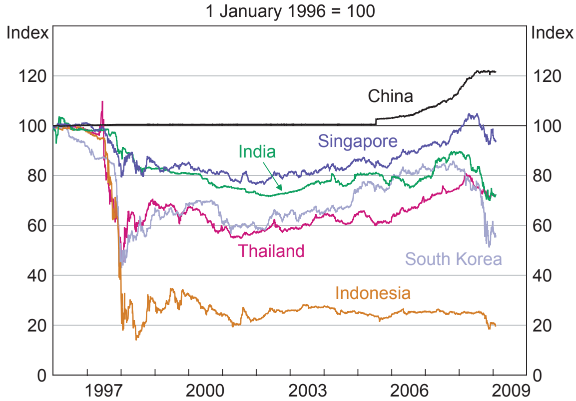
Table 7: Change in US Dollar against Other Currencies
Per cent

	Past 12 months	Since previous *Statement*
New Zealand	54	16
South Korea	46	2
Australia	40	4
United Kingdom	36	8
Mexico	33	11
Brazil	32	5
South Africa	31	–2
Sweden	29	5
Indonesia	26	6
India	23	2
Canada	22	3
Philippines	17	–3
Euro area	14	–1
Malaysia	12	2
Thailand	6	0
Singapore	6	0
Switzerland	5	–2
Taiwan	5	2
China	–5	0
Japan	–16	–9
Majors TWI	**13**	**1**
Broad TWI	**13**	**2**

Sources: Bloomberg; Board of Governors of the Federal Reserve System; Thomson Reuters

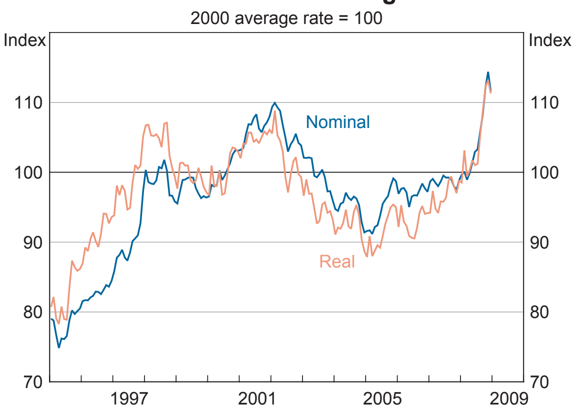
have subsequently depreciated. Other Asian currencies are little changed against the US dollar since the last *Statement*. The Chinese renminbi has been unchanged against the US dollar over the past six months but has experienced a noticeable appreciation in both effective terms and against other Asian currencies (Graph 31). Many Asian central banks took the opportunity of more stable conditions in their currency markets in December to rebuild their reserves, which had been run down by around US$200 billion across the region in the previous six months to

Graph 30
Selected Asian Currencies against US Dollar
1 January 1996 = 100



Source: Bloomberg

Graph 31
China – Effective Exchange Rates



Source: BIS

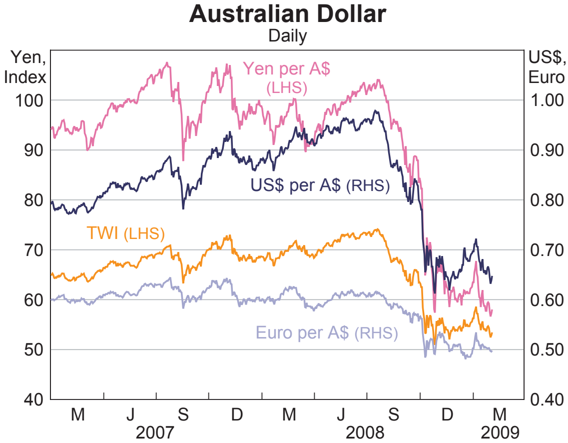
alleviate downward pressure on their exchange rates.

The Russian ruble, which is managed against a basket of euros and US dollars, has been allowed to depreciate by more than 25 per cent since the previous *Statement*. The sharp fall in commodity prices, particularly oil, and the earlier geopolitical tensions in the Caucasus have led to capital outflows and a large fall in Russia's foreign reserves. The Russian central bank has said it will allow a further depreciation of the ruble and the market for non-deliverable forward contracts is currently pricing in a depreciation in excess of 15 per cent over the coming year. A number of Eastern European currencies, especially the Hungarian forint and Ukrainian hryvnia, have depreciated against the US dollar on persistent concerns about the ability of these countries to maintain large current account deficits and to finance external debt. Several emerging Eastern European countries, including Hungary and Ukraine, have sought IMF support to stabilise their financial markets. Latin American currencies also depreciated in line with the falls in commodity prices.

Australian dollar

Following the sharp depreciation in October 2008, the Australian dollar has traded in a relatively wide range. In net terms, the Australian dollar has depreciated by 4 per cent against the US dollar and in trade-weighted terms since the last *Statement* to be 10 per cent below its long-run average in trade-weighted terms (Graph 32, Table 8). Through December and early January, the Australian dollar appreciated steadily on the back of improving global risk appetite to reach 3-month highs against the major currencies. However, these gains have subsequently been retraced, as the Australian dollar remains sensitive to swings in risk appetite of global investors.

Graph 32
Australian Dollar



Sources: RBA; Thomson Reuters; WM/Reuters

In line with trends in other financial markets, volatility in the Australian dollar exchange rate has declined from the unprecedented levels observed in October 2008. Nonetheless, volatility remains high

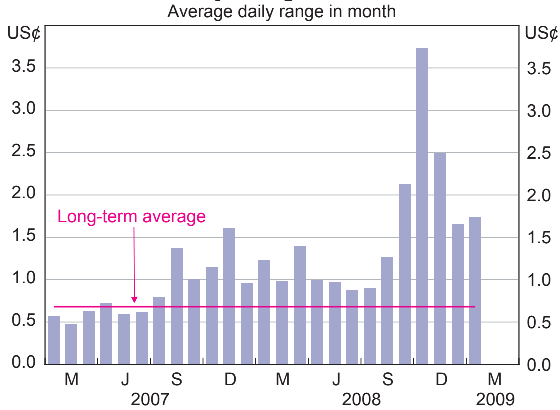
Table 8: Australian Dollar against Selected TWI Currencies
Per cent

	Past 12 months	Since last *Statement*	Deviation from post-float average
New Zealand	11	12	3
South Korea	4	–1	32
United Kingdom	–3	5	0
South Africa	–4	–2	49
Indonesia	–10	2	112
Canada	–12	0	–15
India	–12	–2	21
Euro area	–18	–4	–25
Malaysia	–20	–2	6
Singapore	–24	–3	–22
Switzerland	–25	–5	–31
Thailand	–25	–5	–4
United States	–29	–4	–11
China	–33	–4	–5
Japan	–41	–12	–39
TWI	**–24**	**–4**	**–10**

Sources: RBA; Thomson Reuters

by historical standards, with the intraday range in the Australian dollar in January still above the average seen since the onset of financial market turbulence in August 2007 (Graph 33). Some of this volatility is related to the high correlation in recent months between movements in the Australian dollar and prices of other assets, notably the S&P 500. This has been most evident during the lead-up to the close of the New York Stock Exchange, when US equity markets have been particularly sensitive to shifts in investor sentiment.

Graph 33
Intraday Range in A$/US$
Average daily range in month



Sources: Bloomberg; RBA

With a return to relative stability in the foreign exchange market, there has been little need for the Bank to support liquidity in the market compared with the previous *Statement* period. Consequently foreign reserve assets have remained relatively stable. The US dollar swap facility with the Federal Reserve (see above) has had no impact on reserve assets: the US dollar funds obtained by the Bank under the facility have been immediately lent to domestic financial institutions in exchange for Australian dollar securities.

For the most part, domestic institutions have held these funds in short-term foreign instruments rather than using them to fund domestic assets. This is reflected in balance of payments data for the September quarter, which indicate that there were some changes to the typical composition of the financial account of the balance of payments. The absence of offshore funding prior to the introduction of the Government guarantee and a large increase in offshore assets of financial institutions saw a net outflow of bank and money market capital in the quarter. This was offset by an unusually large repatriation by Australian investors of their foreign portfolio debt investments. Funds obtained via the Bank's US dollar swap facility with the Fed appear to have mostly financed large purchases of short-term foreign assets by domestic financial institutions, indicating these funds were on-lent to offshore banks and had little net effect on the financial account in the September quarter.

Box A: Volatility in Global Financial Markets

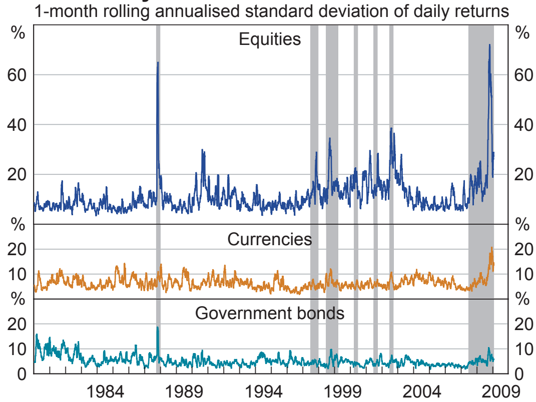
Volatility in financial markets declined over the five years to mid 2007, before rising as problems in the US sub-prime market began to mount (Graph A1).[1] For much of the following year, volatility in equity and currency markets was elevated but remained within the range of recent historical experience. However, volatility increased sharply to historically high levels following the failure of Lehman Brothers in September 2008 and the deterioration in general economic conditions from around that time.

A notable feature of the current period of volatility is that it has lasted for a relatively long time. Moreover, the volatility of equity markets has peaked at levels higher than at any time since 1980, including the 1987 stock market crash. Indeed, between the middle of September 2008 and early October 2008, US equity markets registered some of their largest daily movements since the 1920s. The *average* of volatility of equity markets over the current period of financial market stress has been exceeded in only two other periods since 1980: the Enron scandal in mid to late 2002 and the stock market crash in 1987 (Table A1).

Graph A1

Volatility in Global Financial Markets*

1-month rolling annualised standard deviation of daily returns



* Shaded areas indicate periods of financial market stress (based on IMF estimates). These periods are defined in Table A1.

Sources: Bank of England; BIS; Bloomberg; Board of Governors of the Federal Reserve System; Global Financial Data; IMF; RBA; World Federation of Exchanges

Currencies have also experienced peaks in the level of volatility not seen since at least 1980, but the average level of volatility in this episode is comparable to average volatility in a number of earlier episodes including the Enron scandal and the 1987 stock market crash. The increase in exchange rate volatility relative to volatility prevailing in normal periods has been marked, as investors have unwound leveraged positions in high-yielding currencies such as the Australian dollar. In contrast, the peak in the volatility of government bonds is lower than its peak during the 1987 stock market crash, and the average volatility for the current episode is comparable to that of normal periods.

1 *Volatility in each market – equities, currencies and government bonds – is measured by the annualised standard deviation of daily percentage changes over the previous month. For an earlier review of the decline in volatility refer to 'Box A: Declining Volatility in Global Asset Markets',* Statement on Monetary Policy, *Reserve Bank of Australia, February 2005, pp 22–23.*

Table A1: Volatility in Global Financial Markets
Annualised standard deviation of daily returns

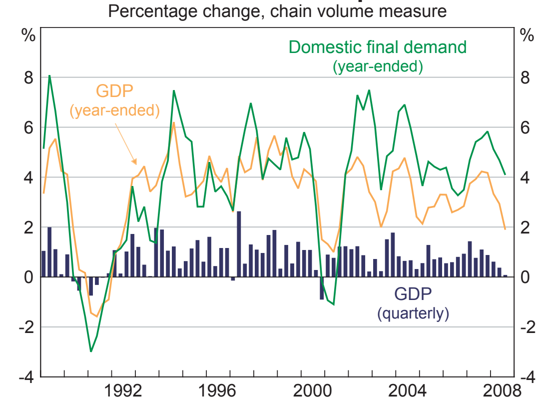
Episodes	Period	Equities	Currencies	Government bonds
Non-crisis periods	1980:Q1 – current	10	6	5
Sub-prime crisis – peak	**2008:Q4**	72	21	11
Sub-prime crisis – average	2007:Q3 – current	23	9	5
Enron scandal	2002:Q3	28	8	6
September 11	2001:Q3	15	6	4
Dot-com crash	2000:Q2	19	6	4
Russian debt default and LTCM	1998:Q3–1999:Q1	18	7	6
Asian financial crisis	1997:Q3–1997:Q4	16	5	4
1987 stock market crash	1987:Q4	32	8	10

Sources: Bank of England; BIS; Bloomberg; Board of Governors of the Federal Reserve System; Global Financial Data; IMF; RBA; World Federation of Exchanges

Domestic Economic Conditions

Conditions in the Australian economy have continued to weaken significantly as the global economy has entered a deep recession. GDP data for the September quarter showed the economy grew by 0.1 per cent, to be 1.9 per cent higher over the year (Graph 34). While the December quarter national accounts will not be available until early March, more timely information – including from private-sector business surveys and the Bank's business liaison program – suggest little, if any, growth in the December quarter (Graph 35).

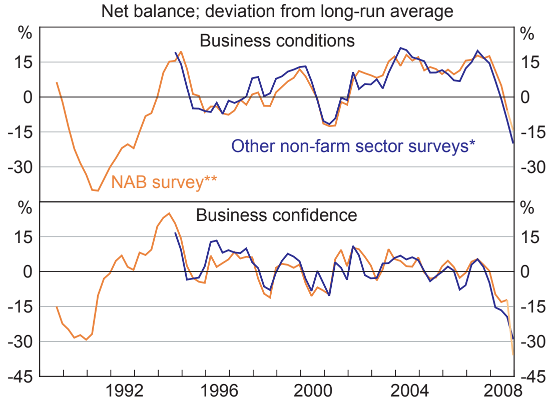
Graph 34
Demand and Output
Percentage change, chain volume measure



Source: ABS

Until recently, the slowing in the domestic economy had largely been centred on the household sector. There was little growth in household consumption in the June and September quarters as rising interest rates, higher petrol prices and falling equity and house prices reduced households' willingness and ability to increase spending. However, the business sector remained strong, with the resources sector benefiting from very high commodity prices and expansions in export capacity, which then flowed through to other industries, providing a significant boost to business profits and investment.

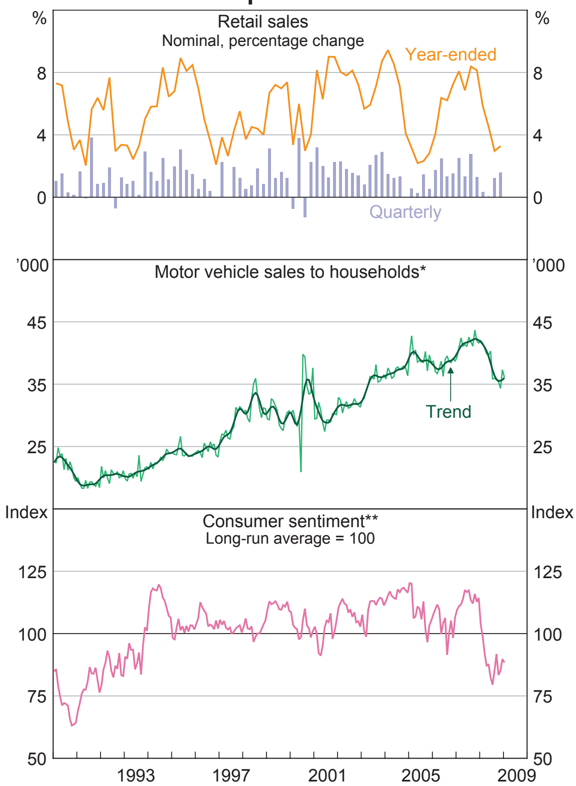
Graph 35
Business Surveys
Net balance; deviation from long-run average



* Weighted average of data from other business surveys, scaled to match the NAB series
** Estimate for December quarter 2008 based on NAB monthly survey
Sources: ACCI; CBA; NAB; RBA; Sensis

Conditions in the business sector have deteriorated sharply in recent months as a result of the continuing crisis in global financial markets and deepening recession in the world economy. In particular, there has been a significant reappraisal of future demand for commodities, resulting in cuts to production and exports and a growing number of mining companies announcing reductions in their capital expenditure intentions for 2009. More broadly, the problems in financial

Graph 36
Consumption Indicators

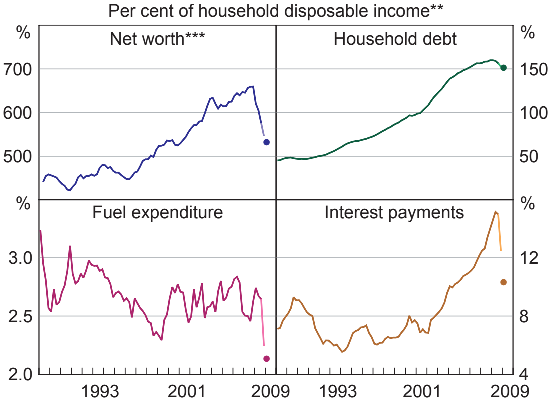


* Data before 1996 are backcast using ABS motor vehicle registration data. The trend is a 13-period Hendersen trend.

** Average of Roy Morgan Consumer Confidence Rating and Westpac-Melbourne Institute Consumer Sentiment Index. Seasonally adjusted by the RBA

Sources: ABS; FCAI; Melbourne Institute and Westpac; RBA; Roy Morgan Research

Graph 37
Household Financial Indicators*
Per cent of household disposable income**



* RBA estimates for December quarter 2008 and March quarter 2009

** Excludes unincorporated enterprises; disposable income is before the deduction of interest payments

*** Includes unincorporated enterprises

Sources: ABS; Department of Infrastructure, Transport, Regional Development and Local Government; RBA

markets have made it difficult for some firms to access finance, which is affecting their investment plans, particularly in the property sector. Meanwhile, conditions for households have improved somewhat given the sizeable falls in mortgage rates in recent months, sharp falls in petrol prices, and the significant boost to household income from the Government’s stimulus measures.

Household sector

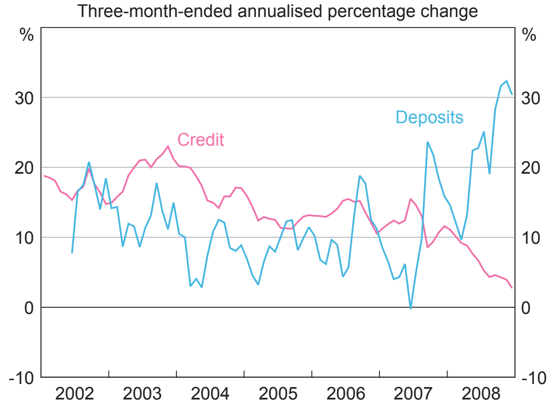
After slowing sharply in the first half of 2008, household consumption grew by 0.1 per cent in the September quarter, to be 1.7 per cent higher over the year. This weakness reflected a number of constraining factors at work. Tight financial conditions and higher petrol prices, and high inflation more generally, eroded the purchasing power of household incomes, while softening house prices and sharp declines in equity values reduced household wealth. Reflecting these factors and growing concerns about job security, consumer sentiment fell to its lowest levels since the early 1990s recession.

More recent data, however, suggest that household consumption picked up in the December quarter as falling interest rates, lower petrol prices and the Australian Government’s fiscal stimulus package provided a significant boost to real household disposable income (Graphs 36 and 37). Interest payments have fallen from a peak of 15 per cent of disposable income in June quarter 2008 to around 10 per cent in the March quarter and petrol prices have fallen by nearly 30 per cent from an average of roughly $1.60 per litre in mid 2008 to around $1.15 per litre, which is equivalent to a boost of around 1 per cent of real household income. The Government's one-off payments to pensioners, carers and low-to-middle-income families in December are estimated to have boosted disposable income by around 4½ per cent in the quarter. While some of the extra disposable income has been saved, a sizeable portion appears to have been spent by households. Retail trade and car sales to households both increased strongly in December, with retail sales up by nearly 4 per cent in the month and motor vehicle sales rising by 9 per cent. Recent liaison with retailers suggests that some of this activity was sustained in early January, broadly consistent with the recent readings on consumer sentiment. However, motor vehicle sales to households fell by 3 per cent in January.

Household net worth is estimated to have fallen by around 10 per cent over 2008, which together with increased uncertainty about the future, as reflected in consumer sentiment surveys, has seen significant shifts in the household sector's behaviour. In particular, households have begun to direct more income to saving and reducing their debt. Household deposit growth increased to an annualised pace of around 30 per cent in the three months to December, up from around 15 per cent a year earlier (Graph 38). At the same time, household credit growth has slowed to an annualised rate of 3 per cent, down from 12 per cent a year earlier, reflecting weaker growth in housing credit and a fall in personal lending associated with declining margin lending. With consumption growing only modestly and a significant slowing in the growth of housing credit, households have been injecting equity into housing, after a sustained period of net equity withdrawal (Graph 39).

Graph 38

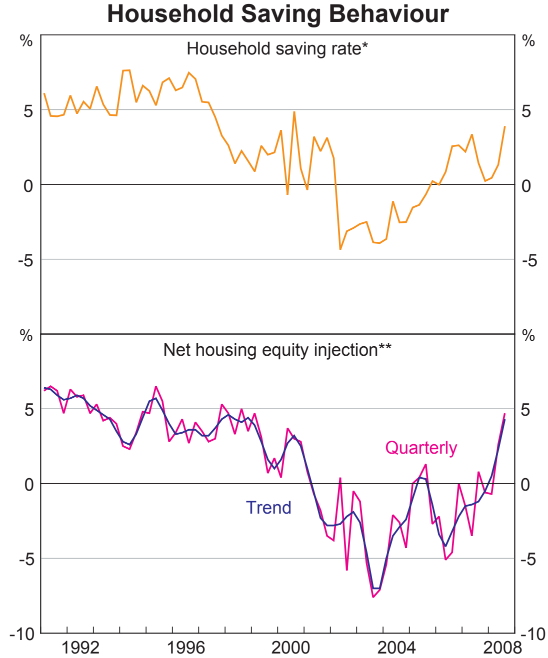
Household Balance Sheet Indicators



Sources: APRA; RBA

Graph 39

Household Saving Behaviour



* Per cent of household disposable income; net of depreciation

** Housing equity injection is defined as dwelling investment, ownership transfer costs and land acquisition less the change in housing credit (including housing secured personal credit) as a proportion of household disposable income

Sources: ABS; RBA

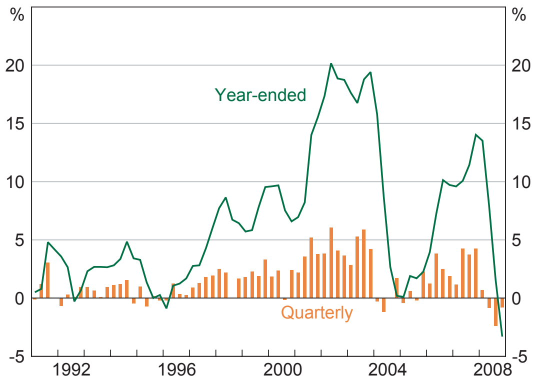
The difficult environment facing the household sector has also been evident in some easing in residential property markets across the country, with house prices declining modestly through much of 2008. In the December quarter, house prices fell by around ¾ of a per cent, to be 2–3 per cent lower over the year depending on the measure (Table 9; Graph 40).

Table 9: National House Prices
Percentage change

	September quarter 2008	December quarter 2008	Year to December quarter 2008
ABS	–2.4	–0.8	–3.3
RP Data-Rismark	–1.4	–0.7	–2.3
APM	–1.5	0.1	–2.1

Sources: ABS; APM; RBA; RP Data-Rismark

Graph 40
House Prices
Percentage change



Source: ABS

The softness in housing markets is currently most pronounced in the more expensive suburbs across the larger capital cities (Graph 41). Between 2004 and 2007, house prices in the most expensive 20 per cent of suburbs rose considerably more rapidly than in lower-priced suburbs but over the past year or so house prices in the higher-priced suburbs have fallen by around 10 per cent, while prices elsewhere in the larger capital cities have fallen by around 2 per cent. This pattern may reflect that wealthier households to date have been most affected by the problems in financial markets.

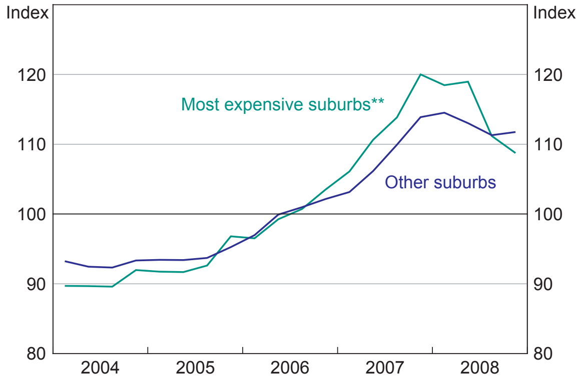
Housing construction activity continued to soften in late 2008, with forward-looking indicators pointing to a significant downturn in dwelling investment into the early part of the new year. The number of private building approvals fell by 16 per cent in the December quarter, driven by falls in both the house and medium-density components (Graph 42). Approvals have now fallen by 35 per cent since their peak in late 2007 to an annualised rate of about 110 000, which is well below estimates of underlying demand and near the troughs of the previous three dwelling investment cycles of the past two decades. While the decline in building approvals over recent months has been much larger than in other indicators – such as housing loan approvals and the HIA measure of new home sales – it is consistent with survey-based measures of residential construction activity, such as the HIA-AIG Performance of Construction Index and the MBA Survey of Building and Construction. Approvals for high-rise developments have been particularly weak, consistent with indications from the Bank's liaison program that developers are having difficulty accessing finance for large projects.

Looking forward, recent falls in interest rates and the increase in the First Home Owner Grant (FHOG) that is part of the government's fiscal stimulus package are expected to lead to some recovery in the residential building industry in 2009. The number of payments for the FHOG increased sharply in December and January. The pick-up in first-home buyer activity, to the extent that it relates to the purchase of new housing, would be expected to flow through to a recovery in building approvals over coming months, and boost dwelling investment in the second half of 2009. Consistent with this, surveys indicate an increase in the proportion of households reporting that it is a good time to buy a dwelling, and the Bank's liaison with the housing industry also indicates a significant pick-up in interest from first-home buyers. Overall, standard measures of housing affordability are estimated to have risen to their highest level in a decade largely as a result of lower mortgage rates (Graph 43).

Graph 41

House Prices*

2006 = 100



* Weighted average of Adelaide, Brisbane, Melbourne, Perth and Sydney

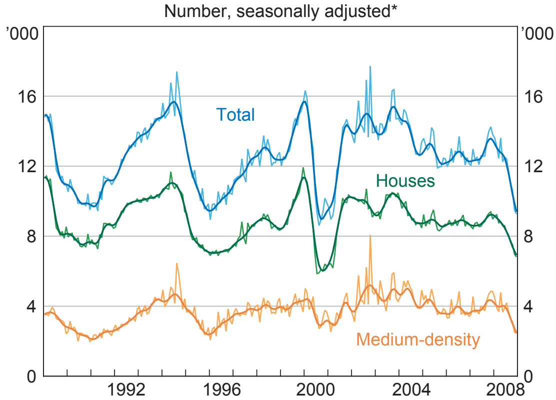
** Most expensive 20 per cent of suburbs

Sources: APM; RBA

Graph 42

Building Approvals

Number, seasonally adjusted*



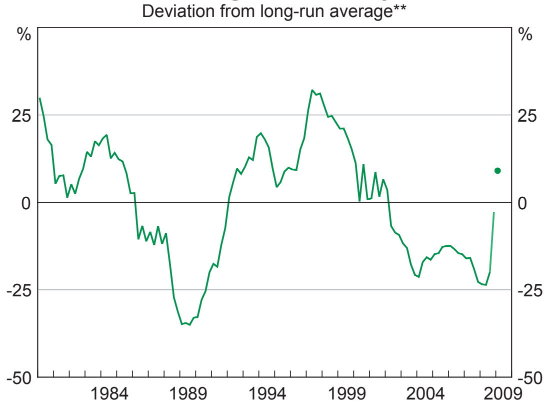
* Smoothed line is the ABS measure of trend

Source: ABS

Graph 43

Housing Affordability*

Deviation from long-run average**



* Index constructed as the ratio of average household disposable income to the required monthly repayment for the median priced home financed with a 25-year loan assuming an 80 per cent LVR at the full-doc prime mortgage rate

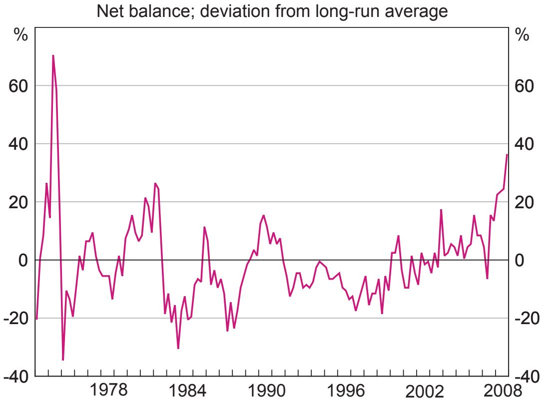
** Average since 1980 to present

Sources: ABS; REIA; RBA

Business sector

Conditions in the business sector have deteriorated sharply in recent months as a result of the continuing crisis in global financial markets and deepening recession in the world economy. While this is yet to be reflected in the available macroeconomic data on investment and profits, business surveys and the Bank's liaison program indicate that firms are responding by significantly scaling back their investment plans. Nevertheless, while the health of the business sector will come under some stress, it entered the downturn in good shape and the decline in average business interest rates in recent months should provide some relief to the business sector's net cash flow (see also the 'Domestic Financial Markets' chapter).

Graph 44
Difficulty in Obtaining Finance
Net balance; deviation from long-run average



Source: ACCI-Westpac

As a result of the problems in global financial markets, it has become increasingly difficult for many firms to access finance. The ACCI-Westpac Survey of Industrial Trends shows that the proportion of firms in the manufacturing sector reporting difficulties obtaining finance in the December quarter rose to its highest level in more than 30 years (Graph 44). The NAB survey also indicates credit conditions tightened significantly in the December quarter, but suggests some improvement late in the quarter. The Bank's business liaison has indicated that financing conditions were becoming more difficult through 2008 for firms across a wide range of industries, with a noticeable tightening in credit availability over recent months. Growth in total business debt – that is, intermediated business credit plus borrowing on the capital market – is estimated to have slowed to an annualised rate of around 1 per cent over the December quarter, down from an annualised rate of 9 per cent over the September quarter.

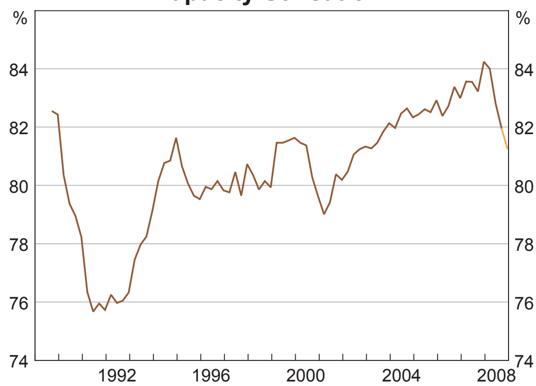
Private-sector surveys report that overall business conditions fell noticeably below average levels in the December quarter and measures of confidence are now weaker than in the early 1990s recession (Graph 35). Consistent with this, the capacity constraints firms were facing over recent years appear to be easing rapidly, with the NAB survey's capacity utilisation measure close to its long-run average level, and the fall over the past three quarters reversing the tightening in capacity that occurred over the previous six years (Graph 45). In contrast to recent years, firms are also reporting that a lack of demand has become more important as a constraint on output than difficulty finding suitable labour.

In line with these developments, a range of business surveys and the Bank's liaison suggest that the proportion of firms planning to increase investment over the coming period has fallen sharply (Graph 46). This follows a long period of strong growth in business investment, which grew by 13 per cent over the year to the September quarter 2008, a similar rate to its average since 2002. The mining sector has been particularly affected by the rapid shift in conditions, and a number of large mining firms have recently announced significant reductions to their capital expenditure plans for 2009.

In recent months there has been a pronounced downturn in the non-residential building sector. The value of approvals for private non-residential buildings fell by around 40 per cent in the December quarter (Graph 47). The falls have been particularly sharp for large-scale projects such as offices and warehouses, with approvals for offices having fallen by almost two-thirds since early 2008. While these data are particularly volatile from month to month, the recent trend seems consistent with the business surveys and the Bank's liaison, which suggest that the marked step-down in approvals for large-scale projects over recent months appears to at least partly reflect restricted access to external financing.

Graph 45

Capacity Utilisation*

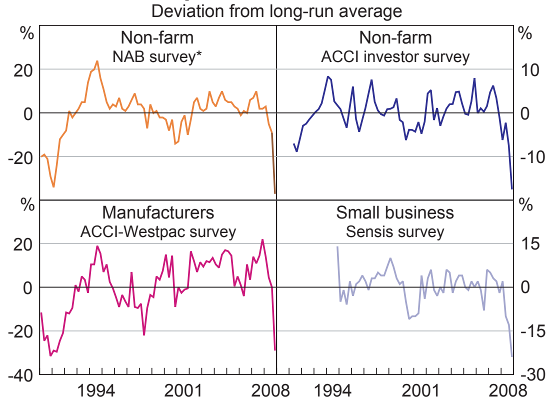


* Estimate for December quarter 2008 based on NAB monthly survey
Sources: NAB; RBA

Graph 46

Expected Investment

Deviation from long-run average

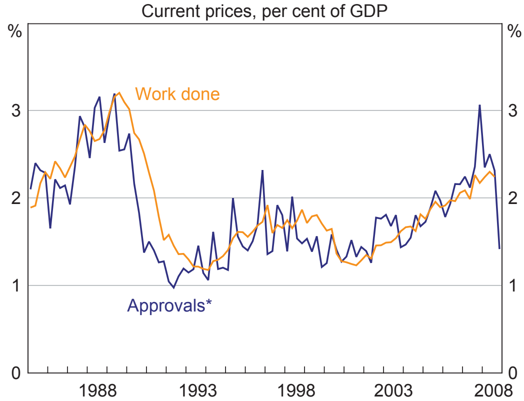


* Estimate for December quarter 2008 based on NAB monthly survey
Sources: ACCI; ACCI-Westpac; NAB; RBA; Sensis

Graph 47

Private Non-Residential Building

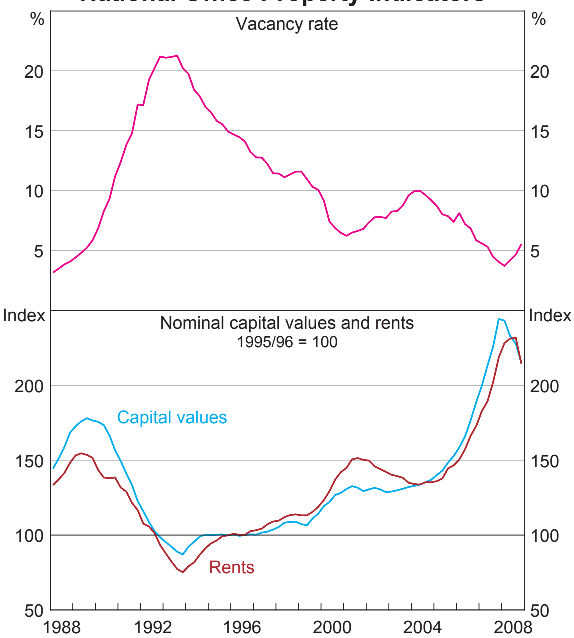
Current prices, per cent of GDP



* December quarter 2008 GDP is an RBA estimate
Sources: ABS; RBA

Graph 48

National Office Property Indicators*

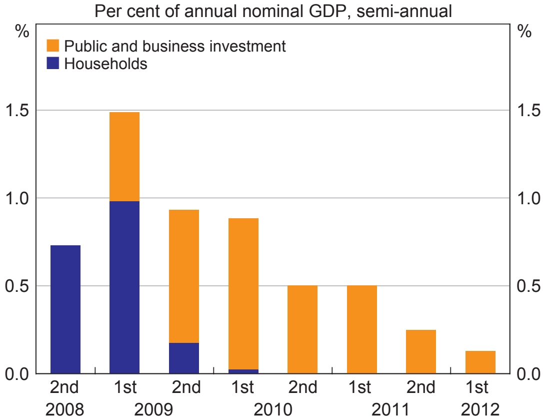


* Capital city CBDs (excluding Hobart)
Sources: Jones Lang LaSalle; Property Council of Australia; RBA

Graph 49

Fiscal Stimulus Measures

Per cent of annual nominal GDP, semi-annual



Source: Australian Treasury

There has been a significant turnaround in conditions in the office property market. While there is considerable uncertainty around recent trends in capital values, as there has been little sales activity, estimates based on Jones Lang LaSalle data suggest national capital values fell by 5½ per cent in the December quarter, to be 12 per cent lower over the year (Graph 48). The nationwide office vacancy rate has risen by nearly 2 percentage points during 2008, although at 5½ per cent it is still well below its long-term average of around 10 per cent.

Government

In response to the slowing in the global and domestic economies, the Australian Government has recently announced a number of planned stimulus measures. The total cost of new policies announced since early October amounts to around $27 billion in 2008/09 (or 2¼ per cent of GDP) and $22 billion in 2009/10 (1¾ per cent of GDP). The stimulus measures include a combination of direct transfers to households, support for businesses and increased public investment (Graph 49). In addition to the payments in late 2008, a second round of payments to households is planned for early 2009. The measures to support the business sector and boost public investment will have their largest effect in 2009/10.

As a result of the fiscal measures and the slowing in growth, the Federal Budget will shift into deficit in 2008/09. Budget estimates in the *Updated Economic and Fiscal Outlook* are for an underlying cash deficit for 2008/09 of $22.5 billion, or 1.9 per cent of GDP. The Budget balance has also been revised down for subsequent years compared with the November *Mid-Year Economic and Fiscal Outlook*.

Farm sector

Farm production is expected to increase by roughly 10 per cent in 2008/09, mainly reflecting an increase in wheat and other cereals crops. Conditions in the rural sector have generally improved over the past few months, as a large number of farming regions experienced average to above-average rainfall in November and December. However, hot and dry conditions through January have stressed summer crops, with yields likely to suffer. Despite above-average rainfall in November and December, flows into the Murray-Darling river system have remained low, suggesting that water availability for irrigation is likely to remain constrained.

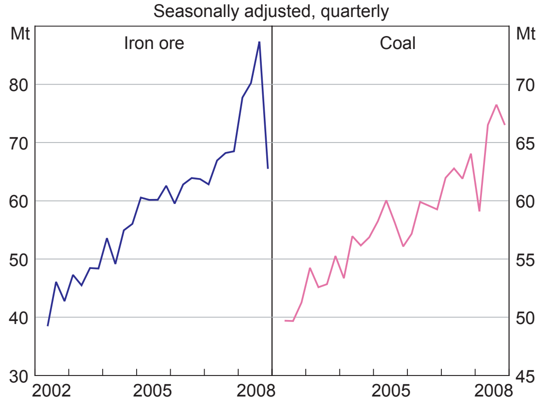
External sector

Export volumes are estimated to have fallen in the December quarter, following a broadly flat outcome in the September quarter, to be around 4 per cent higher over the year. Resource export volumes are estimated to have dropped sharply in the December quarter, as reductions in global steel production affected demand for raw materials (Graph 50). Iron ore export volumes appear to have fallen by roughly 25 per cent in the quarter as major Australian producers responded to the change in global demand conditions. Metallurgical coal export volumes also fell in the quarter, and miners plan to cut production further in 2009. In contrast, with processing at the North West Shelf's fifth compression plant commencing, LNG export volumes rose in the December quarter; oil export volumes have also picked up.

Graph 50

Resource Export Volumes

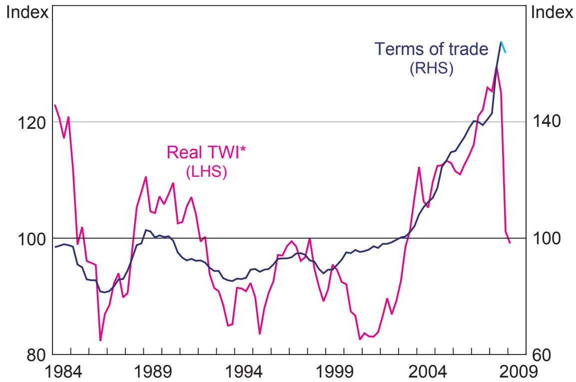
Seasonally adjusted, quarterly



Sources: ABS; RBA

Manufactured export volumes are estimated to have weakened significantly in the December quarter, in line with the sharp slowdown in trading partner growth. However, the large depreciation of the exchange rate would be expected to provide some support to export volumes over the period ahead in the face of weakness in Australia's trading partners (Graph 51).

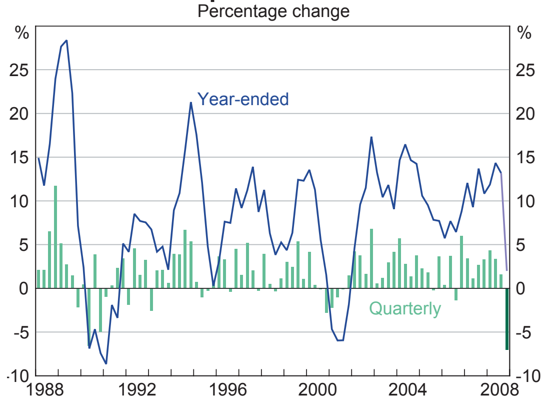
Graph 51
Real Exchange Rate and Terms of Trade
Post-float average = 100



* March quarter 2009 observation assumes that the nominal bilateral exchange rates on 4 February are maintained for the remainder of the quarter, and uses the latest core inflation rates.

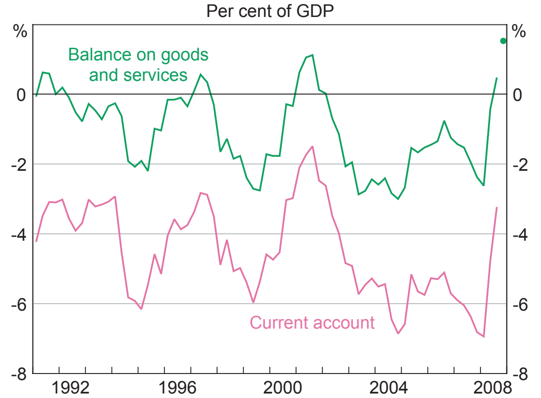
Sources: ABS; RBA

Graph 52
Import Volumes
Percentage change



Sources: ABS; RBA

Graph 53
Current Account Balance*
Per cent of GDP



* Excludes RBA gold transactions; RBA estimate for December quarter

Sources: ABS; RBA

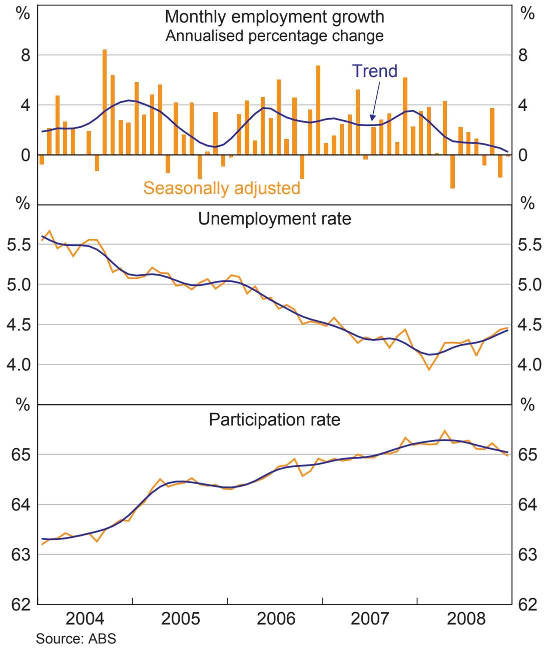
Import volumes appear to have fallen by around 7 per cent in the December quarter, with particularly sharp falls in the volume of imported consumption and capital goods (Graph 52). While this partly reflects the recent depreciation of the Australian dollar, the fall in imports is consistent with other data indicating weakness in domestic spending in the December quarter. The large decline in capital imports, in particular, is consistent with the sharp falls seen in investment intentions and suggests that investment in machinery & equipment may have fallen in the December quarter. Given that retail sales volumes increased in the quarter, the large decline in imported consumption goods suggests that inventories may have been run down in the December quarter. In year-ended terms, growth of import volumes has slowed to around 2 per cent.

Reflecting large increases in 2008/09 contract prices for iron ore and coal exports, the balance on goods and services moved into surplus in the September quarter, and the current account deficit narrowed to 3.2 per cent of GDP (Graph 53). The balance on goods and services remained in surplus in the December quarter, suggesting the current account deficit was around 2½ per cent in the quarter.

Labour market

Conditions in the labour market softened in the December quarter. Employment grew by 0.2 per cent in the quarter to be 1.6 per cent higher over the year, with the trend monthly figures for December showing no growth. Part-time employment accounted for all the growth in the quarter, with full-time employment estimated to have fallen. This could be consistent with the pattern of previous downturns – the large swings in employment in previous slowdowns and recessions have been driven by the full-time component, with part-time employment showing less clear cyclical movements. However, these components can be volatile, and the pattern in December was the reverse of that in the September quarter. The unemployment rate has drifted up from a little more than 4 per cent in the March quarter last year to around 4½ per cent at the end of 2008 (Graph 54).

Graph 54
Labour Market

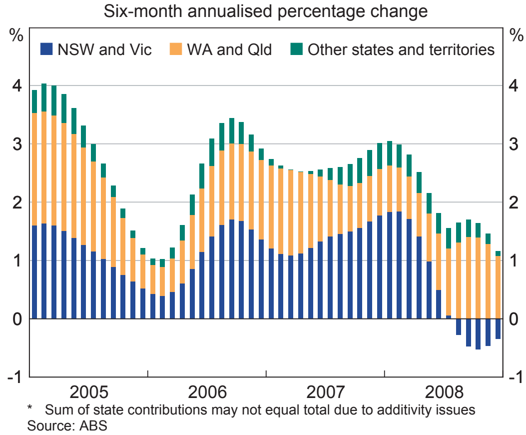


Source: ABS

At the state level, the labour market continues to be weakest in New South Wales, where employment fell over the second half of last year (Graph 55). Labour markets in Western Australia and Queensland remained relatively strong up to the end of 2008, with the unemployment rate in Western Australia actually falling to 2.7 per cent in trend terms in December.

Graph 55
Contributions to Trend Employment Growth*

Six-month annualised percentage change

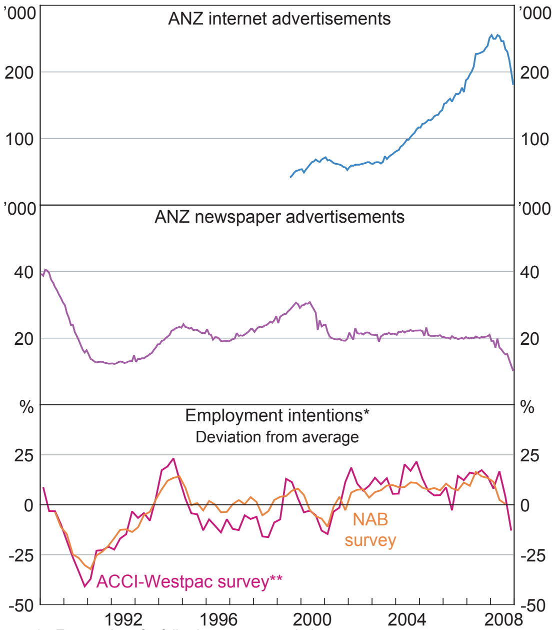


* Sum of state contributions may not equal total due to additivity issues
Source: ABS

While conditions in the labour market softened towards the end of 2008, so far the labour market has held up a little better than might have been expected given the recorded slowing in domestic activity. This may have been a result of labour hoarding, with employers initially less willing to shed labour following the high degree of tightness in the labour market in recent years.

Forward-looking indicators of labour demand are pointing towards further softening in labour market conditions in the early part of 2009. The number of job advertisements fell

Graph 56
Labour Market Indicators



* Expectations for following quarter, net balance
** Seasonally adjusted by RBA
Sources: ACCI-Westpac; ANZ; NAB; RBA

sharply towards the end of 2008, business surveys report that firms' hiring plans have been scaled back significantly, and the Bank's liaison with firms also indicates weaker hiring intentions (Graph 56).

Domestic Financial Markets

Interest rates and equity prices

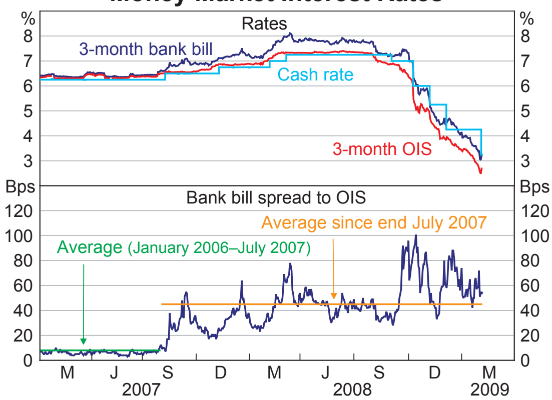
Money and bond yields

The pressures in the Australian money market that intensified in September last year following the demise of Lehman Brothers in the United States, described in the last *Statement*, have abated somewhat over the past three months. Short- and long-term interest rates have fallen markedly over this period in response to the deteriorating global economic outlook and renewed concerns about the health of the financial sector. However, spreads on short-term interest rates relative to the expected cash rate, while falling from their October peaks, have generally remained elevated (Graph 57).

Movements in short-term rates have been driven by the major easing in monetary policy that has occurred, along with expectations of further easings over the first half of 2009. The 100 basis point cuts to the cash rate in both December and February reduced the cash rate to a multi-decade low of 3.25 per cent. Bank bill yields have declined to historical lows with the 3-month rate falling below 3¼ per cent, from over 7 per cent at the start of the current easing cycle in September last year.

Graph 57

Money Market Interest Rates



Sources: RBA; Tullett Prebon (Australia) Pty Ltd

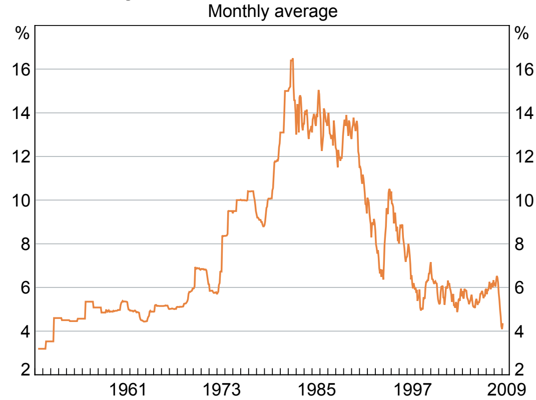
Liquidity in the bill market has shown some signs of improvement over recent weeks. The bank bill spread to OIS has fallen back to around 50 basis points, compared with over 80 basis points in December. Nevertheless, spreads still remain above the average posted in the current crisis period, reflecting investors' concerns about the risks of a deteriorating economic outlook on the strength of banks' balance sheets.

Government bond yields are also sharply lower since the last *Statement*. The declines were driven largely by developments in offshore markets, with 10-year yields falling below 4.0 per cent, to their lowest levels since the 1950s (Graph 58). Again in line with offshore developments, the 10-year yield has since risen a little, to around 4.3 per cent, to be around 100 basis points lower than at the time of the last *Statement*. Shorter yields have fallen by slightly more, reflecting the heightened expectations of monetary easing.

Graph 58

10-year Government Bond Yield

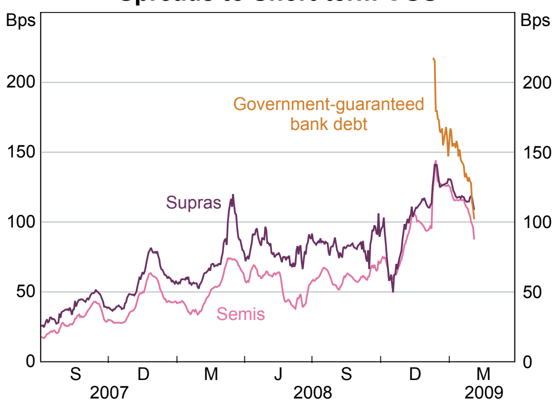
Monthly average



Source: RBA

Graph 59

Spreads to Short-term CGS

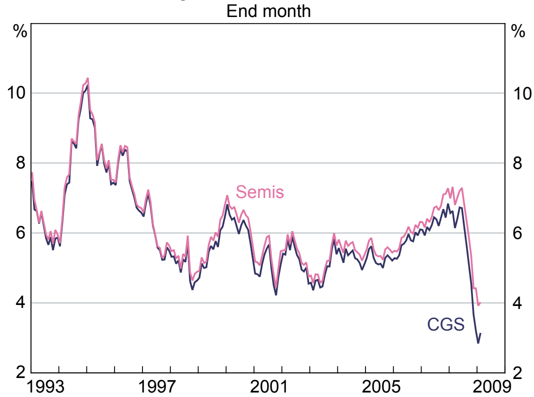


Sources: AFMA; Yieldbroker

Graph 60

3-year Bond Yields

End month



Sources: RBA; Yieldbroker

In December, there was a marked widening in spreads between yields on semi-government and supranational bonds and Commonwealth Government securities (CGS) (Graph 59). This largely coincided with the substantial issuance of bank bonds which have an explicit guarantee by the Commonwealth and initially traded at a higher yield. Investors appear to consider these guaranteed bonds as a similar class of securities to semi-government debt, and so their yields have converged, with semi-government debt repricing to a similar (although still slightly lower) yield as the guaranteed issues. Semi spreads increased from around 60 basis points to a peak of 140 basis points in mid December, although spreads have since narrowed around 50 basis points. In contrast, spreads on guaranteed bank bonds fell by more. Notwithstanding the widening in semi spreads, given the large fall in CGS yields, yields on state government debt have still fallen to multi-year lows (Graph 60).

The Reserve Bank has accommodated quite large shifts in Exchange Settlement (ES) balances in its domestic market operations to minimise any disruption to the cash market (Graph 61). ES balances rose temporarily to a high of over $16 billion in mid December, primarily as a result of transactions associated with financial market consolidation. Balances remained high through the end of year, but as year-end pressures abated, ES balances have settled back to around $3 billion. The Bank has also been able to wind back its term deposit facility as money market and funding pressures have abated, with term deposits declining from a peak of $18½ billion in late December to around $5 billion currently. Notwithstanding the large movements in ES balances, the cash rate has remained at the target. In November, the Bank also further expanded the pool of collateral that is eligible for its operations to include all AAA-rated or P-1 rated securities, with the exception of highly structured products.

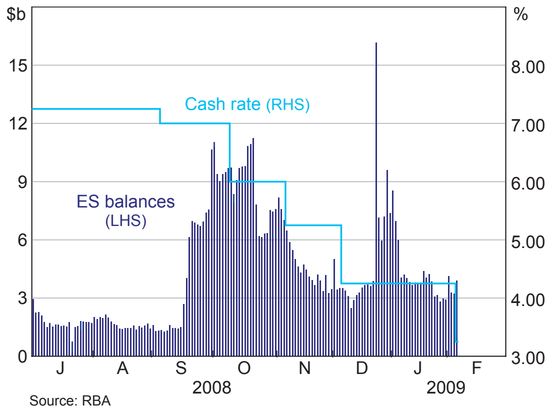
Equity markets

Volatility of the Australian share market has eased somewhat since the last *Statement*, with absolute daily movements now averaging 1½ per cent, down from nearly 3 per cent in October (Graph 62). This is around the average since the onset of the credit crisis, and still well above the long-run historical average.

The ASX 200 is up 3 per cent in net terms since mid November, broadly in line with share markets overseas (Graph 63). The Australian share market remains around 50 per cent below its November 2007 peak and is at the same level as in May 2004. Resource stocks have risen by 22 per cent since mid November after falling heavily over the previous few months, while financial stocks have declined by around 4 per cent, weighed down by the even larger falls in the share prices of banks overseas. The share prices of other companies in the index are broadly

Graph 61

ES Balances and Cash Rate

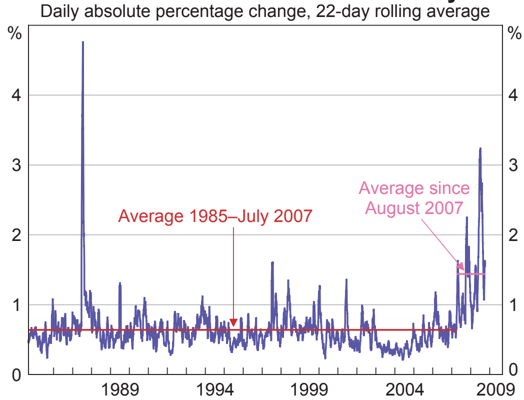


Source: RBA

Graph 62

Australian Share Market Volatility

Daily absolute percentage change, 22-day rolling average



Sources: Bloomberg; RBA

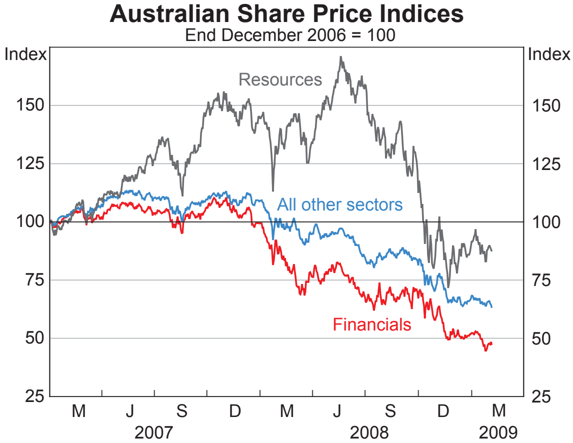
Graph 63

Share Price Indices

End December 1999 = 100

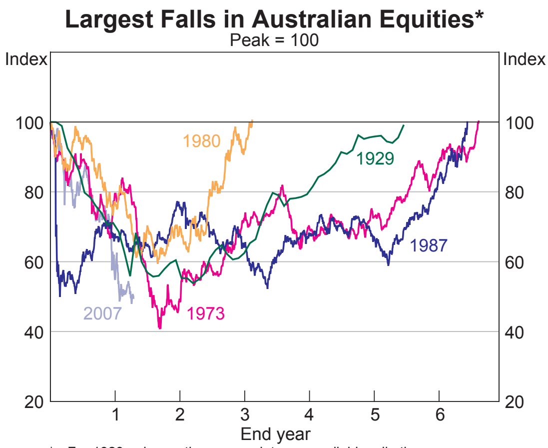
Sources: Bloomberg; Thomson Reuters

Graph 64



Sources: Bloomberg; RBA; Thomson Reuters

Graph 65



* For 1929 only month average data are available; all other years are daily data

Sources: Global Financial Data; RBA

unchanged over the past couple of months (Graph 64).

The ASX 200 declined by around 40 per cent over 2008, the largest calendar year fall for the Australian share market on record but broadly in line with declines in share markets overseas. All sectors of the Australian share market recorded sharp declines over the year: financials fell the most (by nearly 50 per cent), while non-financial companies were down 37 per cent. Historical experience indicates that, following large falls, it can take between three and six years for the share market to recoup losses (Graph 65).

ASIC has extended its ban on covered short-selling of financial companies – where an investor takes a short position and has arrangements already in place for the delivery of securities, typically by borrowing them – to 6 March 2009 from 27 January 2009. Covered short-selling of non-financial companies has been permitted by ASIC since 19 November 2008. The ban on naked short-selling of all stocks will continue indefinitely.

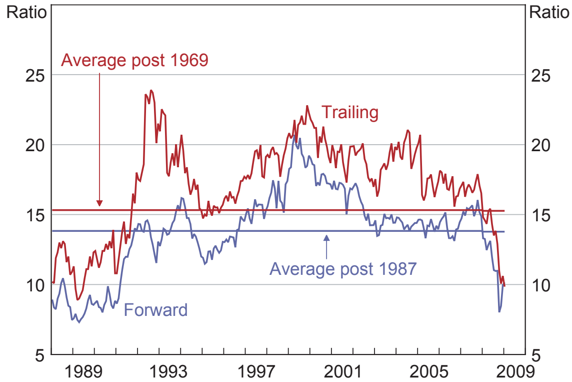
Analysts have sharply revised down their forecasts for resource companies' earnings due to sharp falls in commodity prices over the second half of 2008 and expectations that economic growth will slow over the next couple of years. Nonetheless, resource companies' earnings are forecast to increase by 20 per cent for 2008/09 (less than one-third of the forecast growth rate a few months ago), and to then fall 10 per cent the following year. Analysts also revised down their forecast earnings for financial companies, which are now expected to be around 10 per cent below their level in 2007/08 for the next two years. Overall, analysts expect earnings to be flat for ASX 200 companies for both 2008/09 and 2009/10. However, the dispersion of analysts' forecasts is at historically high levels, reflecting the uncertain outlook. Most companies will report their profit results for the first half of the 2008/09 financial year later this month.

Reflecting the significant downward revision to forecast earnings, the forward P/E ratio – based on expected earnings for the coming year – increased sharply since the last *Statement*

(Graph 66). The trailing P/E ratio – based on earnings for the past year – fell slightly. Nonetheless, both the forward and trailing P/E ratios remain well below their long-run historical averages. P/E ratios for the three broad sectors of the Australian share market also remain well below their long-run averages.

Graph 66

MSCI Australia P/E Ratios



Sources: MSCI; RBA; Thomson Reuters

Net equity raisings by listed companies totalled a record $27 billion in the December quarter 2008. Of this, $21 billion was raised by financial institutions, mainly due to substantial raisings by banks to strengthen balance sheets, repurchase hybrid securities and fund merger and acquisition (M&A) activity. The bulk was raised through placements at discounts of around 10 per cent to market prices. This indicates that Australian banks continue to have good access to equity funding, particularly compared to financial institutions abroad. Equity raisings by non-financial companies were a little above average in the December quarter, with funds tending to be used to pay down debt and fund investment (including M&A activity). A number of non-financial companies have also announced equity raisings in recent weeks. Buy-backs remain subdued, reflecting companies' preference to retain cash to strengthen their balance sheets given the uncertain outlook. IPOs also remained weak amid ongoing volatility in financial markets.

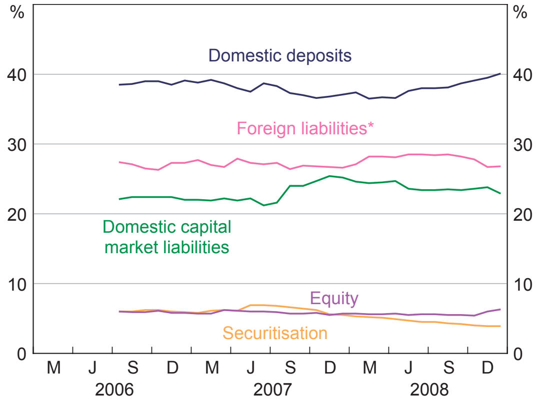
M&A activity remained solid in the December quarter, with $24 billion of new deals announced by listed Australian entities; a further $½ billion of deals were announced in January. Overall, $106 billion of M&A deals were announced by listed companies in 2008, about half the level for 2007, but around the average of the past five years.

Financial intermediaries

The ongoing turbulence in capital markets continues to affect the cost and composition of financial intermediaries' funding. Over 2008, the share of banks' funding that was sourced from deposits rose by 3 percentage points to 40 per cent, with the five largest banks and smaller Australian banks recording particularly strong growth (Graph 67). This offset a 2 percentage point decrease in the share of funding from securitisation, where there has been little new issuance since the onset of the crisis.

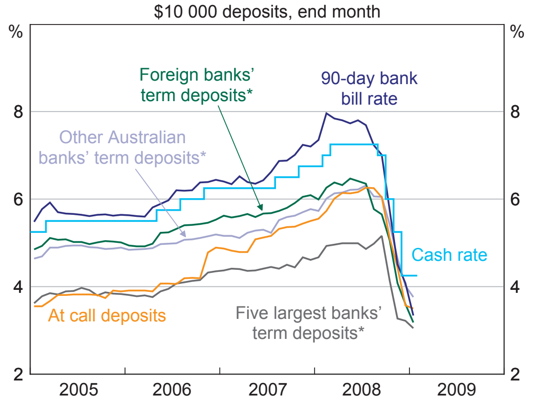
Deposits continued to grow strongly in the December quarter, increasing at an annualised rate of 23 per cent. This reflected ongoing demand for low-risk assets from households and non-financial corporates, the introduction of the Government guarantee, and robust competition for deposit funding from financial institutions.

Graph 67
Funding Composition of Banks in Australia



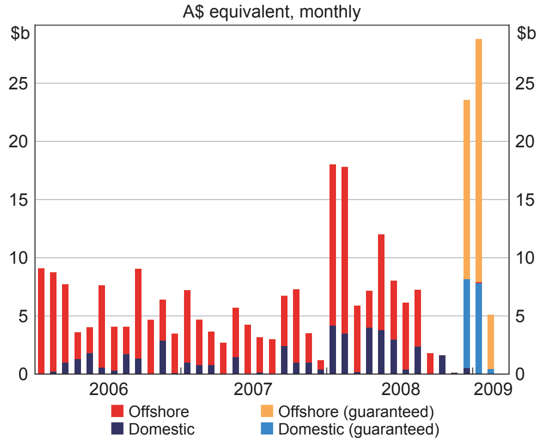
* Adjusted for movements in foreign exchange rates
Sources: APRA; RBA

Graph 68
Deposit Rates
$10 000 deposits, end month



* Average of 1–12, 24-, 36- and 60-month terms
Source: RBA

Graph 69
Banks' Bond Issuance*
A$ equivalent, monthly



* Banks include: Adelaide/Bendigo; ANZ; Bank of Queensland; CBA; Investec; Macquarie; NAB; Suncorp; and Westpac/St. George
Source: RBA

The average rate offered by the five largest banks on $10 000 term deposits decreased by 110 basis points over the three months to end January, much less than the 240 basis point decline in the 90-day bank bill rate, which is a pricing benchmark for these deposits (Graph 68). The regional banks' and foreign banks' rates on $10 000 term deposits have fallen by an average of 165 basis points and 188 basis points respectively. On average, the five largest banks' rates on $250 000 term deposits have fallen by less than the rates offered by the foreign banks, but by more than the rates offered by the regional banks.

The average rate on financial intermediaries' at-call deposits – including online savings, cash management and bonus saver accounts – fell by 156 basis points over the three months to end January, a little less than the decline in the cash rate over this period.

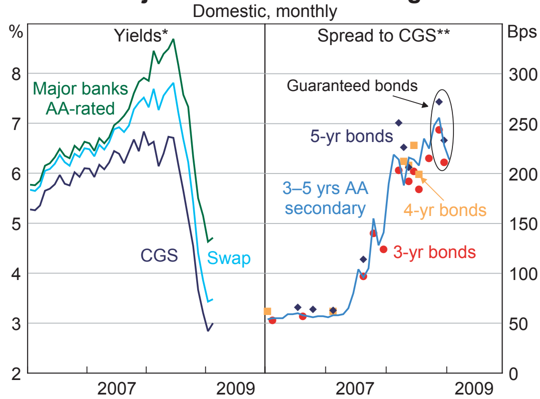
Since the introduction of the Australian Government Guarantee Scheme, banks have been able to more readily access wholesale funding markets. Australian banks issued a record $58 billion of bonds since the last *Statement* (Graph 69). Almost all of these were issued under the Guarantee Scheme and accordingly rated AAA. Around 70 per cent of the bonds were issued offshore, mostly in the US private placement market. The major banks accounted for around three-quarters of issuance since November. Following the strong issuance, the banks appear to be well placed to meet forthcoming maturities and fund their lending activities.

Investor demand for the guaranteed bonds has been strong, with some recent issues oversubscribed and spreads narrowing 65–80 basis points, since the first issues in early December. The major banks have recently issued 3- and 5-year guaranteed bonds domestically at spreads of 130 and 140 basis points over CGS, respectively (Graph 70). Taking into account the 70 basis point fee for the Government guarantee, spreads on guaranteed bonds are around 35 basis points lower than non-guaranteed bonds for the majors. While spreads on the major banks' non-guaranteed bonds remain elevated, yields have declined with the fall in CGS rates to 4.7 per cent – similar to levels last seen in mid 2003 and around 400 basis points below the peak in June 2008.

Graph 70

Major Banks' Bond Pricing

Domestic, monthly



* Yields on bonds issued by the Australian Government and swap rates are 3-year maturities. Major bank yields are a weighted average of bonds with remaining maturities of 1 to 5 years.

** Includes fee for guaranteed issues.

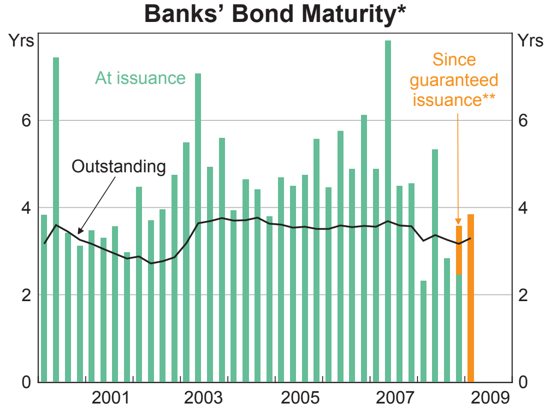
Sources: Bloomberg; RBA; UBS AG, Australia Branch

The Government guarantee has enabled banks to issue bonds for larger amounts and at longer maturities than non-guaranteed bonds issued during the credit crisis. The average issue size of guaranteed bonds is around $460 million, significantly larger than recently-issued non-guaranteed bonds ($205 million) and the pre-crisis average ($130 million). The average term to maturity of guaranteed bonds is around 4 years, compared with 3½ years for recent non-guaranteed bonds and 5 years prior to the onset of the credit crisis (Graph 71). The large issuance at longer terms has reduced the share of banks' debt that is short term in recent weeks.

Total guaranteed liabilities of all deposit-taking institutions under the Guarantee Scheme for Large Deposits and Wholesale Funding is around $95 billion. This comprises $18 billion of large deposits (which amounts to 2 per cent of total deposits), $20 billion of short-term debt and $57 billion of long-term debt.

Graph 71

Banks' Bond Maturity*



* Data to 5 February 2009

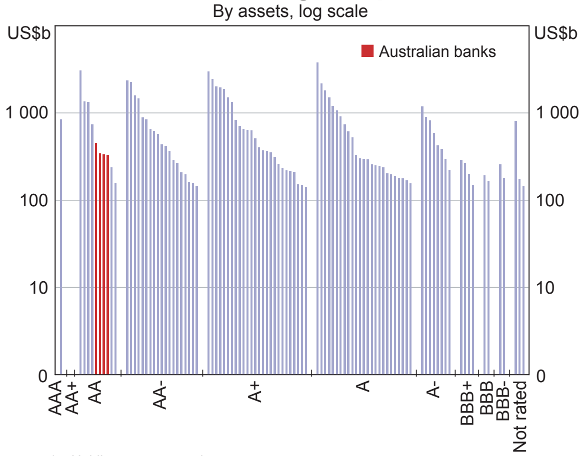
** Includes some small non-guaranteed issues

Source: RBA

Graph 72

Credit Ratings of the Largest 100 Banking Groups*

By assets, log scale



* Holding company ratings

Sources: Bloomberg; *The Banker*

Rating agencies have recently made changes to the ratings and outlooks of several Australian financial institutions. St. George and BankWest (both previously A+) had their ratings upgraded to those of Westpac and CBA (both AA), respectively, after the acquisitions received regulatory approval. Suncorp was downgraded (to A from A+), reflecting Standard & Poor's view that the importance of the bank within the group had fallen. The large Australian banks continue to be viewed favourably by rating agencies: the four majors are rated among the highest in the world (Graph 72).

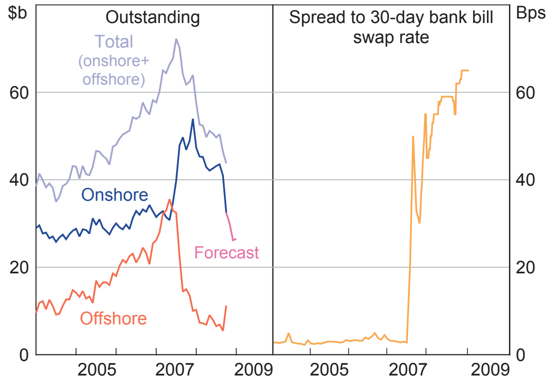
Securitisation markets remain dislocated, with the bulk of residential mortgage-backed securities (RMBS) issued since the last *Statement* purchased by the Australian Office of Financial Management (AOFM); one small securitisation backed by auto loans was also issued. Four RMBS, totalling $2.6 billion, were issued during November and December, of which $2 billion was purchased by the AOFM as part of the Government's $8 billion injection into the market. As with previous RMBS issues, investor demand was concentrated amongst the shorter-dated senior tranches. There were no public issues of asset-backed debt in January.

The low investor demand appears to be related to the overhang of supply in the secondary RMBS market which has seen AAA spreads to BBSW increase sharply from around 240 basis points in November to over 450 basis points. Domestic spreads have followed overseas spreads higher, with investors reluctant to participate in structured markets and some RMBS sales by fund managers in anticipation of redemptions. In contrast, the two RMBS issued in December priced at an average spread of 135 basis points, around the same level as deals issued in November. RMBS issuance remains uneconomic for most issuers at these spreads.

The high spreads on RMBS do not appear to reflect investor concerns about the quality of collateral. Although losses on RMBS (after the proceeds from property sales) picked up in the September quarter – the latest data available – they remain low as a share of securities outstanding (5 basis points for prime and 65 basis points for non-conforming on an annual basis). Investors in rated tranches of prime Australian RMBS have never borne a loss, with losses mostly covered by lenders' mortgage insurance. Almost all the losses on non-conforming Australian RMBS have also been covered by credit enhancements (mostly the profits of the securitisation vehicle) rather than investors.

Conditions in the asset-backed commercial paper (ABCP) market have become more difficult since the last *Statement*, with many programs having difficulty rolling over paper and turning to their liquidity provider for support. The value of ABCP outstanding (onshore and offshore) continues to fall, and at October 2008 – the latest comprehensive data available – was 39 per cent below the peak in July 2007 (Graph 73); preliminary data suggest that ABCP outstanding onshore has fallen a further 18 per cent since then. The fall in the stock of ABCP outstanding has been broad-based across programs. Spreads on ABCP remain elevated, at around 65 basis points above BBSW. Around one-quarter of Australian ABCP was downgraded by one notch in late December, to A-1. This reflected the downgrades of ABN AMRO and the Royal Bank of Scotland, both of whom provide credit and liquidity support to the affected ABCP programs.

Graph 73
Australian ABCP



Sources: Austraclear Limited; nabCapital; RBA; Standard & Poor's

Household financing

At the time this *Statement* was finalised, the February cut in the cash rate had only just started to flow through to borrowing rates. Nonetheless, interest rates on household loans have fallen substantially since the monetary policy easing cycle commenced in September last year (Table 10). Financial institutions have passed on the bulk of the cash rate reductions to their prime variable-rate housing loans, and this, coupled with the prevalence of variable-rate housing loans in Australia, has resulted in much greater pass-through of recent policy rate reductions to the average outstanding housing loan rate than in other countries (refer to 'Box B: An International Comparison of Pass-through of Policy Rate Changes to Housing Loan Rates').

Variable lending rates for prime full-doc housing loans fell by an average of 275 basis points in the five months to end January. The pass-through of cash rate reductions to variable housing loan rates in this easing cycle has been only slightly less than that seen in previous cycles.

The five largest banks' average 3-year fixed housing loan rate has declined by 360 basis points since its peak, roughly in line with the decrease in the bank swap rate, off which these loans are priced. At 5.83 per cent, the 3-year fixed housing loan rate is at its lowest level in several decades. Nonetheless, borrower expectations of further declines in the cash rate (and hence variable housing loan rates) have seen the share of owner-occupier loan approvals at fixed rates continue to fall. In November, only 2½ per cent of owner-occupier loan approvals were at fixed rates; the lowest share in at least 17 years, and markedly lower than the decade average of around 12 per cent.

Table 10: Intermediaries' Variable Lending Rates

Per cent

	Level at end Jan 2009	Change since: End Oct 2008	End Aug 2008	End Jul 2007
Cash rate	4.25	–1.75	–3.00	–2.00
Housing loans				
Prime-full doc				
Banks	6.17	–1.54	–2.76	–1.27
Credit unions and building societies	6.20	–1.69	–2.63	–1.17
Mortgage originators	6.38	–1.69	–2.72	–0.97
Prime low-doc				
Banks	6.75	–1.45	–2.64	–0.94
Mortgage originators	7.22	–1.33	–2.61	–0.58
Non-conforming	10.23	–1.51	–1.51	0.60
Personal loans				
Margin loans	8.92	–1.10	–1.65	–0.04
Standard credit cards	18.67	–1.08	–1.25	0.88
Low-rate credit cards	12.67	–0.56	–0.27	1.50
Unsecured term loans	14.10	–0.74	–0.80	1.48
Home equity loans	6.93	–1.30	–2.65	–1.29
Small business				
Term loans				
Residentially secured	8.28	–1.13	–1.81	–0.02
Other security	9.01	–1.00	–1.68	0.12
Overdraft				
Residentially secured	9.10	–1.13	–1.81	0.05
Other security	9.93	–1.00	–1.66	0.21
Average actual rate[(a)]	8.37	–1.13	–1.80	–0.26
Large business				
Average actual variable rate [(a)]	6.44	–1.84	–2.53	–1.12
Average actual bill rate[(a)]	5.10	–2.55	–3.28	–1.99

(a) RBA estimate

Sources: ABS; APRA; Canstar Cannex; Perpetual; RBA

Overall, we estimate that the average interest rate on all outstanding housing loans had declined by 200 basis points by the end of January, to 6¾ per cent. This is around 95 basis points below its post-1993 average (Graph 74).

There was greater pass-through of the December cash rate cut to personal lending rates than there was for earlier reductions. Over the easing cycle, financial institutions' variable rates on low-rate credit cards and unsecured personal loans have fallen by 30–80 basis points. Rates on standard credit cards and margin loans have declined by 125–165 basis points.

Reflecting the decline in borrowing costs, the value of housing loan approvals appears to have picked up following a sharp decline in the first half of 2008. In the three months to

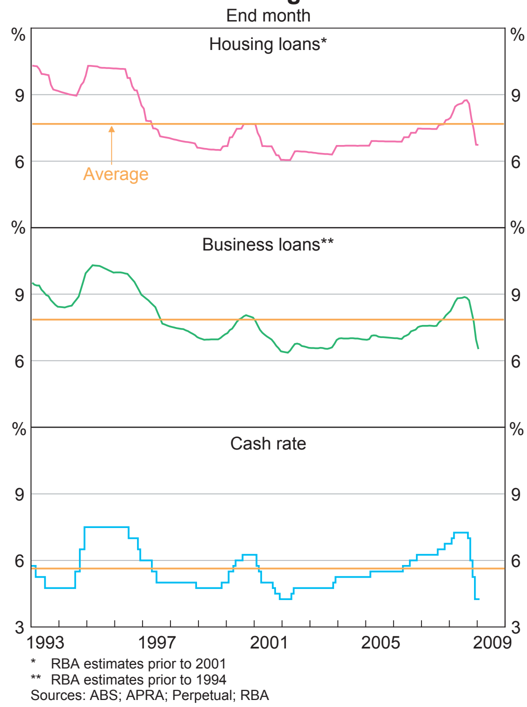
November, housing loan approvals were higher than in July and August, although still around 25 per cent below their peak in mid 2007. This reflects a pick-up in housing loan approvals by the five largest banks, partly offset by relatively weak approvals by smaller lenders. As a result, the five largest banks' share of gross owner-occupier loan approvals has risen by 14 percentage points since June 2008, to over 80 per cent (Graph 75).

Indications of a levelling out in loan approvals are in line with the steady housing credit growth in recent months and consistent with improved housing affordability. Over the December quarter, housing credit growth averaged 0.5 per cent per month, which is little changed from its average pace over the previous six months.

Personal credit decreased further in the December quarter, as the fall in the share market has contributed to a very large decline in margin debt, and credit card lending has continued to slow (Graph 76). Margin lending has now fallen by around 50 per cent from its peak. The incidence of margin calls rose sharply in the December quarter, to a record 10 calls per day per 1 000 clients (Graph 77). The average for the 2008 calendar year was 4.9 calls per day per 1 000 clients, well above its annual average of 1.8 calls per day per 1 000 clients between 2000 and 2007. The increased frequency of margin calls in 2008 reflects both the extreme volatility in equity markets throughout the year, and the sustained declines in share prices, which have pushed up investors' gearing levels.

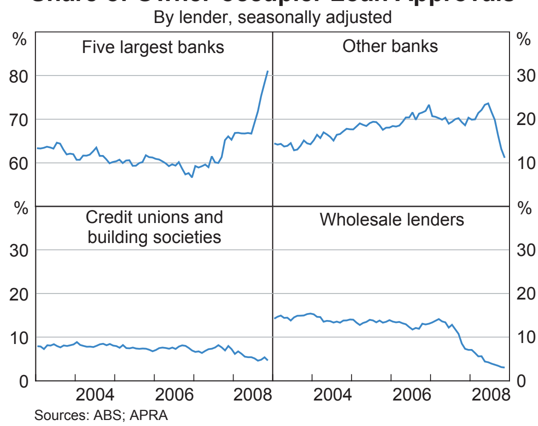
Graph 74

Average Interest Rates on Outstanding Loans



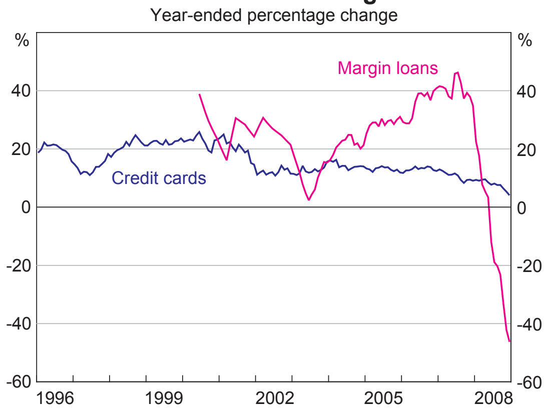
Graph 75

Share of Owner-occupier Loan Approvals



Graph 76

Personal Lending



Sources: APRA; RBA

Graph 77

Margin Calls

* This is the absolute value percentage change between the lowest point in each quarter and the highest previous peak in the same quarter.

Sources: Bloomberg; RBA

Business financing

Benchmark interest rates for business borrowing have also fallen since the last *Statement*, however these have at least in part been offset by increases in risk margins. Variable interest rates on large business loans – which are mostly priced off bank bills – are estimated to have fallen by 295 basis points in the five months to end January. Variable indicator rates for small business loans have declined by around 180 basis points. Business interest rates have declined over the past two months, as the marked fall in bank bill rates over the latter half of 2008 was more fully reflected in interest rates on outstanding large business loans, and as banks passed on most of the December cash rate reduction to their small business rates. Liaison indicates that some borrowers have recently experienced sizeable increases in risk margins.

The average of the major banks' rates on new 3-year fixed small business loans has decreased by 370 basis points since its peak to 6.21 per cent, the lowest level in several decades. However, with rates on new fixed-rate loans having risen steadily until June 2008, the average rate on outstanding fixed-rate loans is still reasonably high by historical standards.

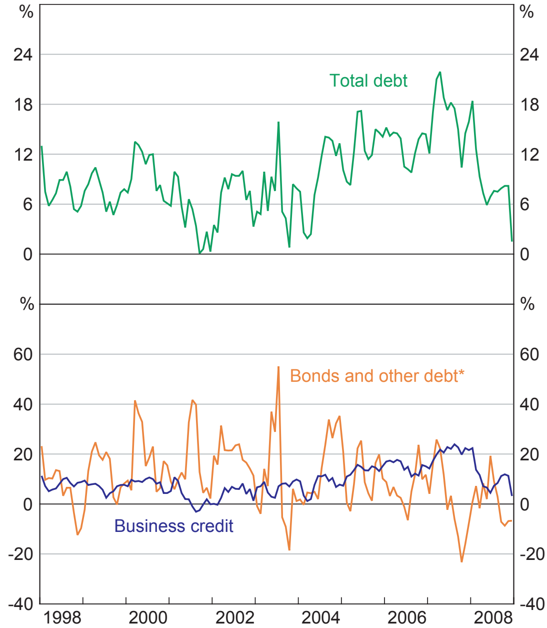
Overall, abstracting from recent changes in risk margins, we estimate that the average interest rate on all outstanding business loans has fallen by 230 basis points since the start of the easing cycle to 6.50 per cent; this is 135 basis points below its post-1993 average and just 15 basis points higher than the trough in rates in early 2002. This fall will in part have been offset by increases in margins.

Despite the fall in businesses' borrowing costs, growth in total business debt has slowed sharply to an annualised rate of 1 per cent in the December quarter, after averaging about 8 per cent through most of 2008 (Graph 78). In the month of December business credit contracted by 1.1 per cent, reflecting a decline in foreign-currency-denominated lending. The slowdown has been broad-based across Australian banks, foreign-owned banks and capital market debt. It appears to reflect weaker demand from businesses, due to falls in profits and confidence, and a tightening in lending standards. Commercial loan approvals have continued to decline in recent months, suggesting that business credit growth is likely to remain subdued in the near term.

Graph 78

Business Funding

Three-month annualised percentage change



* Exclusive of promissory notes held by AFIs

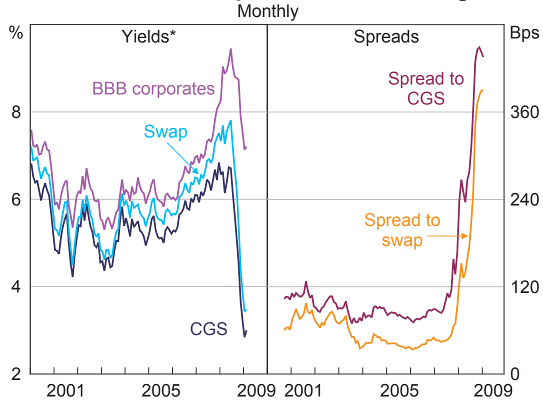
Sources: ABS; ASX; Austraclear Limited; RBA

The slowdown in business credit growth in the December quarter was evident across large and small loans. It was also relatively broad-based across industry sectors. Over recent months there has been some speculation that many foreign-owned banks will withdraw from the Australian market and that this will create a significant funding shortfall for businesses. While there is a risk that some foreign lenders will scale back their Australian operations, particularly if offshore financial markets deteriorate further, at this stage there is little sign of this, with most of the large foreign-owned banks planning to maintain their lending activities in the Australian market.

Graph 79

Australian Corporate Bond Pricing

Monthly



* Yields on bonds issued by the Australian Government and swap rates are 3-year maturities. Corporate bond yields are a weighted average of bonds with remaining maturities of 1 to 5 years.

Sources: Bloomberg; RBA; UBS AG, Australia Branch

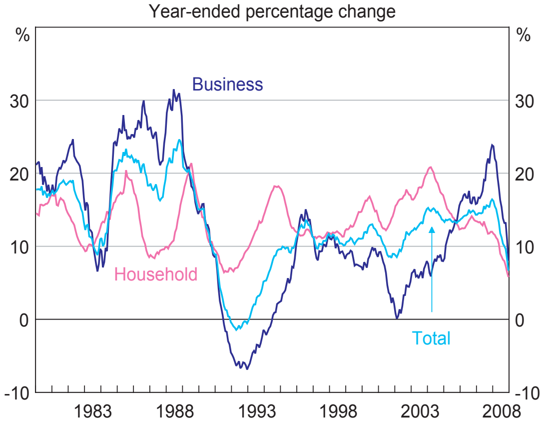
There has been no corporate bond issuance since October 2008. Secondary market spreads on corporate bonds have increased by around 5 basis points since the last *Statement*, reaching a high of 450 basis points above CGS (Graph 79). However, due to the fall in CGS yields, corporate bond yields are currently around 7.2 per cent – 150 basis points lower than at the end of October 2008 and at levels last seen in August 2007.

The ratings of all of the monoline bond insurers that are active in the Australian market were downgraded further by at least one rating agency since the previous *Statement*. The downgraded monolines insure around $27 billion of domestic bonds, accounting for around 3 per cent of the Australian non-government bond market. While the ratings of credit-wrapped bonds differ across credit rating agencies, most are below their initial AAA rating, and are now rated Baa by Moody's and AA to A by Standard & Poor's.

Graph 80

Credit

Year-ended percentage change



Source: RBA

Aggregate credit

Credit grew at an annualised rate of around 3 per cent over the December quarter, down from around 7 per cent over the June and September quarters. The slowdown has been broad-based across business and household credit (Table 11; Graph 80). The slowing in credit growth is consistent with other domestic demand indicators, as discussed in the 'Domestic Economic Conditions' chapter. Growth in broad money has increased in recent months, partly reflecting a pick-up in demand for currency and deposits.

Table 11: Credit Aggregates

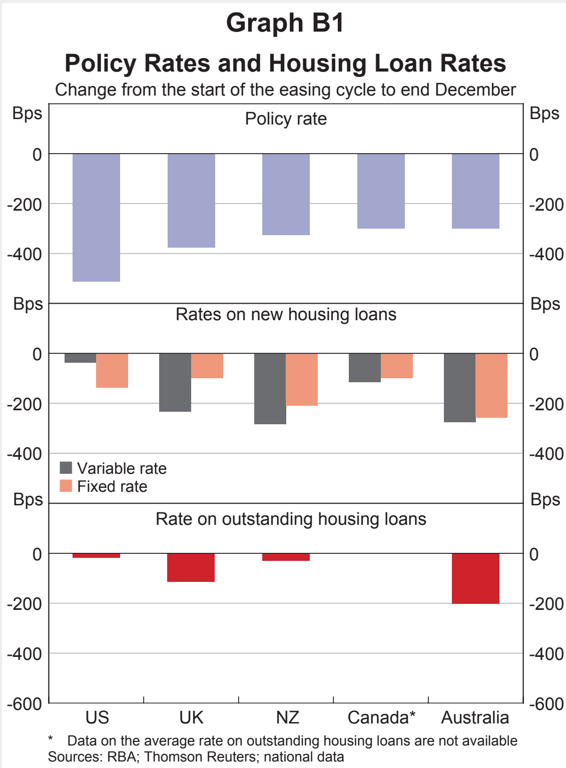
Average monthly growth, per cent

	March quarter 2008	June quarter 2008	September quarter 2008	December quarter 2008
Total credit	0.8	0.5	0.6	0.2
Household	0.7	0.5	0.4	0.2
– Owner-occupier housing	0.9	0.7	0.5	0.6
– Investor housing	0.8	0.6	0.4	0.2
– Personal	0.0	0.0	–0.4	–1.4
Business	1.0	0.4	1.0	0.2

Source: RBA

Box B: An International Comparison of Pass-through of Policy Rate Changes to Housing Loan Rates

An important channel for the transmission of monetary policy easing to economic growth is through reductions in interest rates paid by households on their housing loans. Lower interest rates on existing loans reduce households' interest payments, which increases the income available to indebted households who tend to have a higher propensity to consume. Lower rates on new loans also boost demand for dwellings, thereby supporting house prices and residential building activity.



Many countries, including Australia, have reduced their policy rates significantly over the past year or so. However the pass-through to outstanding housing loan rates has been much greater in Australia than in most other developed countries. During the second half of 2008, the RBA lowered the cash rate target by a cumulative 300 basis points, and the average rate on outstanding housing loans decreased by 200 basis points (Graph B1). In comparison, the policy rate in the United States was reduced by about 500 basis points between August 2007 and December 2008, but the average interest rate on outstanding housing loans has fallen by just 15 basis points. Similarly, in New Zealand and the United Kingdom, policy rates were reduced by 325–375 basis points during 2008, but average rates on outstanding housing loans are only 30 and 115 basis points lower.

The greater pass-through of policy rate changes to average rates on outstanding housing loans in Australia than in other countries reflects both the high share of variable-rate loans and the fact that financial institutions have passed on most of the recent declines in wholesale rates to their rates on new and existing variable housing loans and new fixed housing loans.

In Australia, three-quarters of outstanding housing loans are at variable rates. As well, almost all of the remainder have relatively short fixed-rate terms (between one and five years) so that a reasonable share are continuously coming to the end of their fixed term and are reset according to current interest rates. Variable housing loan rates decreased by 275 basis points between August 2008 and December 2008, only a little less than the 300 basis point decrease in the cash rate, and rates on new 3-year fixed housing loans were lowered by 260 basis points, broadly in line with the fall in the 3-year government bond yield.

In contrast, in the United States, about three-quarters of outstanding housing loans are at long-term fixed rates (typically 30 years), with borrowers generally having the option to refinance their loan without penalty if interest rates fall. The remaining housing loans are 'adjustable rate mortgages', which often have a fixed rate for the first 1–5 years, and thereafter are adjusted periodically. Up until very recently, there had been very little pass-through of the large decline in the federal funds target rate to outstanding housing loan rates because rates on new 30-year fixed rate mortgages were little changed from their mid-2007 levels, notwithstanding the decline in longer-term government yields. In part this reflected the increase in the cost of funding for the large housing agencies, Fannie Mae and Freddie Mac, due to growing concerns about their financial viability. Because of this lack of transmission to lending rates, in November the Federal Reserve announced that it would commence buying agency debt. This, combined with the sharp fall in bond yields, saw rates on new 30-year fixed-rate mortgages fall by 140 basis points. This has led to a pick-up in refinancing activity, which should boost pass-through in coming quarters. Variable borrowing rates have only fallen by 40 basis points since August 2007, partly because many of these loans are benchmarked to US dollar LIBOR or the various Cost of Funds Indices, which have fallen by considerably less than the federal funds rate.

In the United Kingdom, variable rate and 1–5 year fixed-rate loans each account for about half of outstanding loans. The reasonably high share of fixed-rate loans has slowed the pass-through of policy rate reductions to average rates on outstanding housing loans since November 2007. Moreover, financial institutions have passed on only about half of the decrease in wholesale rates to their housing rates. Rates on new 3-year fixed housing loans declined by 100 basis points, compared with a 195 basis point fall in the equivalent government bond yield. Rates on new variable rate loans have fallen by 150–230 basis points, compared with a 375 basis point reduction in the Bank of England's Bank Rate, as lenders have increased their margins significantly. Rates on outstanding variable rate loans have fallen by more, though pass-through has still been limited. Even on tracker loans, where the pass-through of changes in the bank rate should be automatic, some loan contracts have clauses which allow lenders to widen their margins if the bank rate falls below a certain level.

In Canada, about three-quarters of outstanding housing loans are at fixed rates, with five years being the most common term. This high share of fixed-rate loans has likely slowed the pass-through of policy rate reductions to average rates on outstanding housing loans over 2008, though reliable data are not available. Pass-through has been further reduced because rates on new 5-year fixed and variable housing loans have fallen by only about 100 basis points, compared with the 300 basis point reduction in the policy rate and the 220 basis point reduction in the government bond yield.

Price and Wage Developments

Recent developments in inflation

Consumer price data for the December quarter suggest the pace of inflation has moderated, following a period when it had been quite high. The CPI fell by 0.3 per cent in the quarter, to be 3.7 per cent higher over the year (Table 12, Graph 81). Looking across a range of measures, underlying inflation was around ¾ per cent in the quarter – compared with over 1 per cent in earlier quarters – and around 4¼ per cent over the year. In year-ended terms, both headline and underlying inflation appear to have peaked in the September quarter 2008.

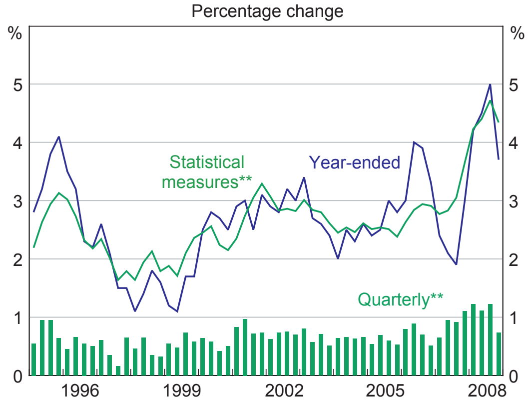
Table 12: Measures of Consumer Prices
Percentage change

	Quarterly		Year-ended	
	September quarter 2008	December quarter 2008	September quarter 2008	December quarter 2008
CPI	1.2	–0.3	5.0	3.7
– Tradables	0.7	–1.8	3.4	1.2
– Tradables (ex food and fuel)	0.1	–0.2	1.1	0.9
– Non-tradables	1.6	0.6	6.1	5.4
Underlying measures				
Weighted median	1.3	0.9	4.8	4.5
Trimmed mean	1.2	0.6	4.6	4.2
CPI ex volatile items[(a)]	1.1	0.5	4.6	4.1

(a) Volatile items are fruit, vegetables and automotive fuel
Sources: ABS; RBA

Although price pressures remained quite broad-based – around 60 per cent of items in the CPI had annualised price increases of 2.5 per cent or more in the quarter – developments in a few items with large weights held down the CPI. The main contributor to the fall in the CPI in the quarter was an 18 per cent decline in petrol prices, which subtracted 0.9 percentage points from inflation. In addition, there was also a decline in the estimated cost of deposit & loan facilities following recent reductions

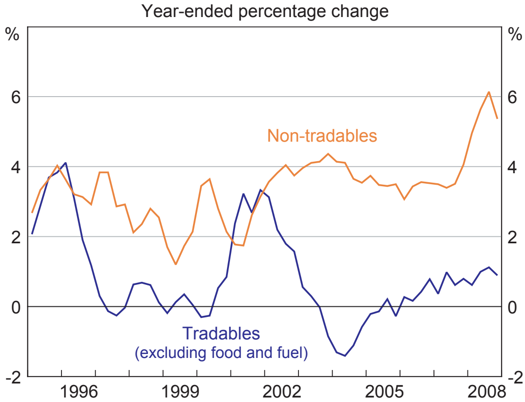
Graph 81
Consumer Price Inflation*
Percentage change



* Excluding interest charges prior to the September quarter 1998 and adjusted for the tax changes of 1999–2000
** Average of the trimmed mean and weighted median
Sources: ABS; RBA

Graph 82

Tradables and Non-tradables Prices*



* Excluding interest charges prior to the September quarter 1998 and adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

in the cash rate, a significant fall in motor vehicles prices, and a slowing in housing cost inflation. In contrast, prices of almost all food items rose and inflation remained strong for a range of services. The overall slowing in non-tradables inflation in the CPI data provided some evidence of the easing in price pressures that the Bank has been expecting due to the slowing economy (Graph 82). The pace of tradables inflation (excluding food and fuel) was broadly unchanged, but is likely to increase in 2009 due to the large depreciation of the Australian dollar during the second half of 2008.

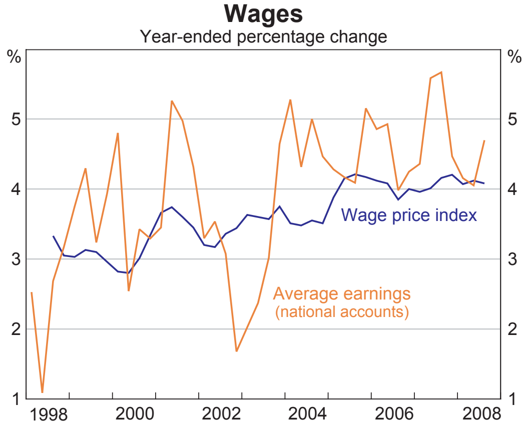
Costs and margins

Official data suggest that growth in labour costs in the September quarter remained relatively firm, although information from business surveys and liaison points to some moderation in the period ahead, in line with the softening in labour market conditions.

The wage price index (WPI) grew by 0.9 per cent in the September quarter, leaving year-ended growth running at around the 4 per cent pace seen during the past few years, but above the average rate of the 11-year history of the series (Graph 83). Annual growth in public sector wages was slower than that in the private sector, partially due to ongoing delays in renegotiating expired public sector collective agreements. In particular, this contributed to a softer outcome for New South Wales, which recorded total WPI growth of only 3.7 per cent in year-ended terms, the lowest of the states. Western Australia again recorded the strongest annual growth of 5.1 per cent, despite some moderation over the past year.

Graph 83

Wages



Source: ABS

Most other measures of wages also continued to grow at a pace above the average for the inflation-targeting period. The national accounts measure of average earnings grew by 1.5 per cent in the September quarter and by 4.7 per cent over the year, and the measure of ordinary time earnings from the average weekly earnings survey presented a similar picture. The average annualised wage increase provided by federal enterprise bargaining agreements formalised in the September quarter was 4.1 per cent. However, consistent with the slowing in economic activity, measures of current and expected labour costs from business surveys show an easing in wage pressures (Graph 84); information from business liaison suggests this trend will continue into 2009.

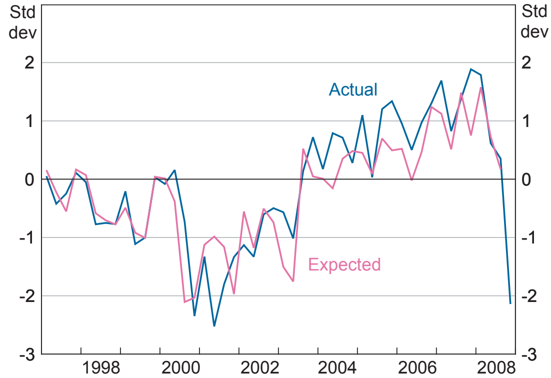
Producer price inflation remained firm in the December quarter, abstracting from the sharp fall in oil prices. Domestically generated upstream price pressures moderated in the quarter, but there was a sharp rise in import prices (Graph 85). The easing in domestic prices was most apparent at the final stage of production, where a significant fall in construction costs in Victoria held down overall price growth. Final stage domestic producer price inflation (excluding oil) slowed to 0.5 per cent in the quarter, after averaging around 1½ per cent in the previous three quarters. In contrast, import prices rose by 17 per cent in the quarter, reflecting the sharp depreciation of the exchange rate.

Recent data on business margins, based on ABS profits data, suggest that margins – including in the goods distribution sector that comprises retail & wholesale trade and transport – declined slightly in the September quarter, but remained at above-average levels (Graph 86). Nonetheless, recent information from the Bank's liaison points to considerable pressure on margins across a range of industries.

Graph 84

Surveys of Business Labour Costs*

Deviations from average



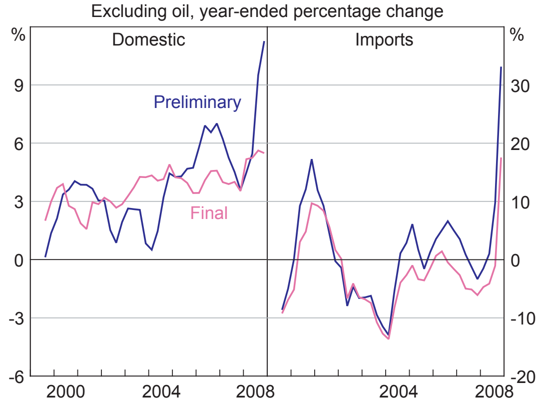
* Weighted average of data from various business surveys, with weights calculated by the RBA using the principal component method; estimated for December quarter

Sources: ACCI: CBA: NAB: RBA: Sensis

Graph 85

Producer Prices by Stage of Production

Excluding oil, year-ended percentage change

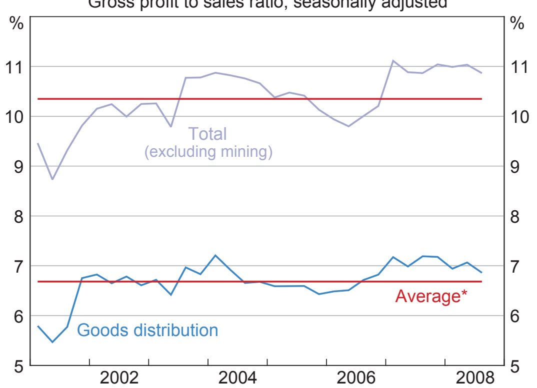


Sources: ABS; RBA

Graph 86

Business Margins

Gross profit to sales ratio, seasonally adjusted



* Since 2001

Sources: ABS; RBA

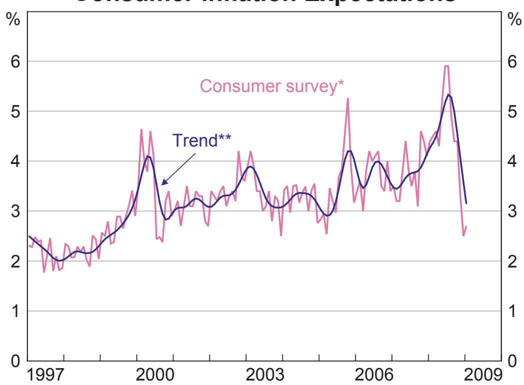
Importers suggest that the depreciation of the Australian dollar has put upward pressure on prices, although distributors and retailers report that it will be difficult to pass on the higher cost of imports in full due to soft consumer demand and ongoing competitive pressures.

Inflation expectations

Inflation expectations have declined significantly over recent months according to a range of measures. Consumer inflation expectations, as measured by the Melbourne Institute survey, fell to 2.7 per cent in January, compared with almost 6 per cent in mid 2008, although this indicator is quite volatile (Graph 87). Likewise, measures of inflation expectations derived from financial markets have fallen.

Graph 87

Consumer Inflation Expectations



* Median consumer's expectation of average annual inflation over the next year
** 13-period Henderson trend
Sources: Melbourne Institute of Applied Economic and Social Research; RBA

Market economists surveyed by the Bank following the release of the December quarter CPI expect inflation to moderate further in the near term. The median expectation for headline inflation over the year to the June quarter 2009 is now 2.0 per cent, compared with 3.4 per cent in November (Table 13). Over the year to the June quarter 2010, the median inflation expectation is 2.5 per cent. Surveys of both businesses and union officials also generally suggest that inflation expectations have eased in recent months.

Table 13: Median Inflation Expectations
Per cent

	Year to June 2009			Year to June 2010	
	August 2008	November 2008	February 2009	November 2008	February 2009
Market economists[(a)]	3.3	3.4	2.0	2.6	2.5
Union officials[(b)]	4.0	4.5	3.2	4.0	3.0

(a) RBA survey
(b) Workplace Research Centre

Economic Outlook

The outlook for the international economy has weakened since the time of the November *Statement*. As a consequence the domestic growth forecasts have also been revised down, though the extent of the impact on domestic growth will be moderated by the easings that have occurred in monetary and fiscal policy and by the significant depreciation of the exchange rate. Consistent with the weaker outlook for domestic activity, the inflation forecasts have also been lowered. It is likely that underlying inflation has passed its peak in both quarterly and year-ended terms. Underlying inflation is expected to decline gradually from its current elevated level, to reach the lower end of the target band by the end of the forecast period.

As previously, the forecasts do not incorporate any effects, particularly on inflation, from the Government's Carbon Pollution Reduction Scheme (CPRS). While the precise emissions reduction target has not yet been decided, the proposed 5 per cent reduction in emissions from 2000 levels by 2020 would be expected to increase the CPI by around 1 per cent, with relatively small ongoing effects thereafter. For further details see 'Box C: Climate Change Mitigation Policy and the Macroeconomy'.

The international economy

Recent data point to a marked deterioration in the near-term outlook for the world economy, with the earlier slowdown in some developed countries broadening and intensifying sharply in late 2008 to become a highly synchronised global recession. Indicators of activity such as industrial production and trade, while weak almost everywhere, have recently declined most sharply in a range of emerging economies, especially in east Asia. Accordingly, global growth in 2009 is expected to be the lowest in the period since World War II, notwithstanding the substantial monetary and fiscal stimulus now being brought to bear in many countries. The subsequent recovery in world growth is likely to be quite gradual, consistent with the typical profile in the aftermath of financial crises.

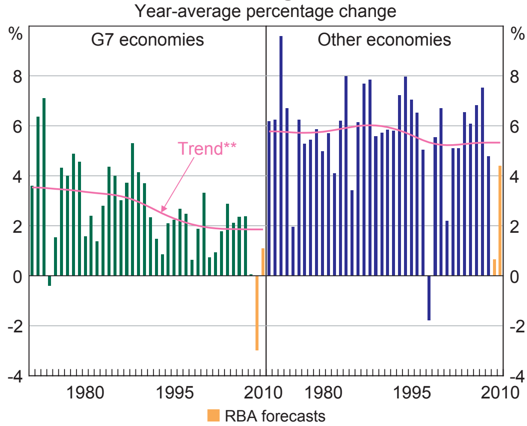
Reflecting this outlook, the Bank's domestic forecasts are based on the projection that, on an export-weighted basis, output in Australia's major trading partners will contract by around ¾ per cent in 2009, down from annual growth of around 5¼ per cent in 2006 and 2007. This forecast is lower than implied by the country forecasts in the *World Economic Outlook* update released by the IMF in late January, in part reflecting the continuing flow of soft data in the intervening period.

The forecasts include a further contraction in the developed economies in early 2009 following the sharp declines in the December quarter. A stabilisation is expected later in 2009, reflecting the significant monetary and fiscal stimulus in many countries, especially in the United States. Growth in China and India in 2009 is expected to be markedly below the rates recorded in recent years, while some of the other economies of east Asia are projected to record sharp contractions in year-average terms. Growth in both the major advanced countries and the rest of the world, weighted by Australia's export share with each country, is expected to be nearly 5 percentage points below trend in 2009 (Graph 88).

Graph 88

Australia's Trading Partner GDP*

Year-average percentage change

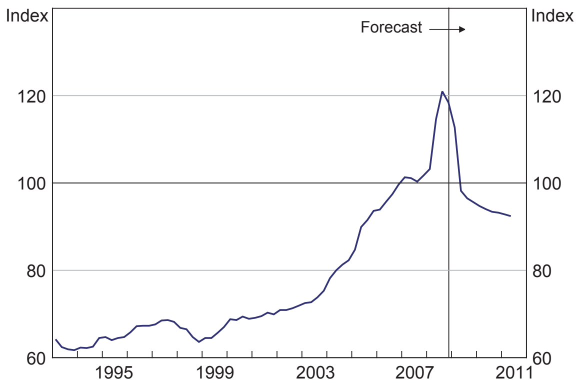


* Weighted using merchandise export shares at market exchange rates
** Estimated using a Hodrick-Prescott filter
Sources: CEIC; IMF; RBA; Thomson Reuters

Graph 89

Terms of Trade

2006/07 = 100



Sources: ABS; RBA

The developments in the world economy and the softening in commodity markets will be reflected in a significant decline in Australia's terms of trade (Graph 89). Export prices for base metals and rural commodities are significantly lower than in mid 2008, and US dollar-denominated prices in spot markets for coal and iron ore remain well below the current contract prices despite production cuts by producers in Australia and elsewhere. A large fall in the terms of trade is expected in the first half of 2009 as renegotiations of annual contract prices for coal and iron ore take effect. Overall, the terms of trade are forecast to decline by around 20 per cent between late 2008 and early 2010, implying a significant reduction in real domestic income.

Domestic activity

The forecasts for the domestic economy incorporate the planned significant fiscal expansion announced in late 2008 and early 2009. Taking the measures for 2008/09 and 2009/10 together, the discretionary policy actions sum to around $50 billion, equivalent to around 2 per cent of GDP a year. In addition, the forecasts reflect the 4 percentage point reduction in the cash rate since September 2008. The technical assumption is that the cash rate remains at 3.25 per cent, while the exchange rate is assumed to remain near its current level and the oil price assumption is based on pricing of near-term futures contracts. Sentiment in financial markets is assumed to remain fragile for some time.

The sharp contraction in the global economy in late 2008 suggests that the near-term growth outlook is materially weaker than projected in the November *Statement*. However, it is likely that the slowdown in Australia will be less severe than in many of our major trading partners. This partly reflects the stronger momentum in the Australian economy in the period leading into the global crisis. As in other countries, there has been a significant monetary and fiscal easing in Australia. But given the predominance of floating rate debt in Australia and that the Australian financial system is in stronger shape than elsewhere, the easing in monetary policy is resulting in a larger fall in borrowing rates and more effective transmission of monetary policy. In addition, the depreciation of the exchange rate over the past half-year will help to moderate the effect of the global slowdown on the import-competing and export sectors.

Table 14: Output and Inflation Forecasts[(a)]
Percentage change over year to quarter shown

	Sep 2008	Dec 2008	June 2009	Dec 2009	June 2010	Dec 2010	June 2011
GDP	1.9	1	¼	½	1¼	2½	3¼
Non-farm GDP	1.7	1	0	¼	1¼	2½	3¼
CPI	5.0	3.7	1¾	2½	2¾	2½	2
Underlying inflation	4.7	4.3	3½	3	2¾	2½	2

(a) Actual GDP data to September 2008 and actual inflation data to December 2008. Underlying inflation refers to the average of trimmed mean and weighted median inflation. For the forecast period, technical assumptions include A$ at US$0.65, TWI at 54, cash rate at 3.25 per cent, and WTI crude oil price at US$55 per barrel and Tapis crude oil price at US$57 per barrel.
Sources: ABS; RBA

Growth in GDP is now expected to slow from 1.9 per cent over the year to the September quarter 2008 to around ¼ per cent over the year to mid 2009. The economy is expected to begin to pick up from late 2009, with quarterly growth gradually recovering to around trend rates by late 2010 (Table 14). This forecast implies a very significant easing in capacity pressures in the economy.

The projected weakness in real GDP coupled with the large fall in the terms of trade implies a sharp fall in real domestic income, which is forecast to contract by around 4 per cent over 2009. However, the significant foreign ownership of the mining sector means that part of this reduction will be borne by foreign shareholders (just as they shared the gains as export prices rose), so the fall in real income accruing to Australian residents will be somewhat smaller, though still substantial. Consistent with the large fall in income, real gross national expenditure is forecast to contract modestly through 2009, offset by a contribution to growth from net exports as a result of the depreciation of the exchange rate.

Growth in household consumption spending is expected to remain subdued over much of the forecast period, given an expected weakening in employment and the decline of around 10 per cent in net worth over the past year as a result of the sharp fall in the equity market and smaller fall in house prices. However, the significant fiscal stimulus to households will provide support to consumption over the first half of 2009 and growth in spending is subsequently expected to gradually return to more normal rates. In the near term, dwelling investment is likely to fall significantly, given recent trends in building approvals and dwelling commencements. The Bank's liaison with developers has also indicated a significant reduction in the availability of credit for new development, which may slow the recovery in the near term. However, the increase in the First Home Owner Grant and the significant falls in mortgage rates will limit the fall in dwelling investment and contribute to a recovery from late 2009.

Business investment, which has recently been at its highest level as a share of GDP since the early 1970s, is expected to fall through most of the forecast period albeit by less than would otherwise have occurred due to the Government's introduction of tax deductions on eligible investment. Falls in commodity prices and resource company share prices are expected to result in a substantial scaling-back of mining-related investment. Consistent with this, a number of major mining firms have recently announced significant cuts to their capital expenditure plans for 2009 and beyond. Given falls in approvals in recent months, non-residential building is also forecast to contract significantly, especially for large developments such as offices, where developers are having greater difficulty accessing finance.

Public demand is expected to make a significant contribution to growth over the forecast period, reflecting the measures announced in late 2008 and early 2009 by the Government. Measures announced include spending on schools, public & defence housing and transport infrastructure. The outlook for exports has deteriorated given the sharper-than-expected weakening in demand in Australia's major trading partners and the contraction in global trade in the December quarter. Exports are expected to be broadly flat over 2009. However, given the relatively low exchange rate and the build-up of production capacity by resource companies, non-rural exports are expected to grow rapidly towards the end of the forecast period as global growth begins to recover.

Although labour market conditions have held up reasonably well so far, the projected softness in domestic activity over 2009 is expected to lead to a further weakening in the demand for labour. Employment is forecast to fall over 2009, although growth is expected to resume as the economy gradually recovers. Despite the significant stimulus already provided by monetary and fiscal policy, the unemployment rate is forecast to increase materially over the next year or so.

Inflation

The inflation forecasts incorporate the weaker outlook for global and domestic growth, significantly lower oil prices, and a modestly lower exchange rate than assumed at the time of the November *Statement*. The net effect has been a downward revision to the earlier inflation forecasts.

While year-ended underlying inflation is expected to remain above the Bank's medium-term target range in coming quarters, price pressures in the domestic economy should ease. This reflects the slowing in global and domestic activity, which will alleviate capacity pressures and reduce the pricing power of businesses (including the extent to which firms can pass on higher prices for imports). Wage growth is likely to slow in line with conditions in the labour market. The projected decline in inflation will also be aided by the significant decline in inflation expectations since mid 2008 and the falls in the prices of oil and many other commodities. However, the decline in overall inflation is likely to be a gradual process as price pressures in the non-tradables component have been significant and broad-based in recent years. In addition, tradables inflation is expected to pick up for at least the next year from the relatively low levels recorded in recent years, as the sharp rise in import prices due to the large depreciation of the exchange rate more than offsets an easing in world price pressures due to weakness in the global economy.

Overall, underlying inflation is forecast to decline gradually to around 2 per cent by mid 2011. Reflecting falls in petrol prices and some other special factors, including a fall in the measured cost of deposit & loan facilities, year-ended CPI inflation is expected to decline more quickly in coming quarters. CPI inflation could fall to below 2 per cent later in 2009, but is then expected to move broadly in line with underlying inflation.

These central forecasts reflect a judgment as to the net effect of a number of powerful forces – some contractionary and some stimulatory – on the Australian economy. Working on the downside is the extraordinary weakening of the global economy in late 2008, when the G7 economies experienced the largest quarterly fall in GDP for the period for which quarterly GDP data are available and trade and industrial production in east Asia contracted at an unprecedented rate. On the upside, there has been a major easing of monetary and fiscal policy in Australia and the exchange rate has depreciated significantly over the past six months. Given the extraordinary circumstances at present, the uncertainty surrounding the forecasts is significant.

The forecasts assume that the world economy continues to contract in the first half of 2009, but at a slower pace than seen in late 2008. However, given the ongoing stresses in financial markets and the rapidity of the deterioration in the global situation in late 2008, it is possible that the world economy could weaken by more than has been assumed. Even if this did not occur, it is possible that the effects on domestic confidence and activity of the global deterioration that has already occurred could be deeper or more persistent than has been factored into the outlook. In particular, a more rapid unwinding of the resources boom than has been assumed would have significant negative effects throughout the economy, resulting in softer growth in domestic incomes and spending. Furthermore, there is also a risk that developments in capital markets could result in larger-than-expected effects on the availability of credit, particularly to businesses, thereby exacerbating the slowing in investment and in domestic activity more broadly. If these risks materialise, there would be a quicker fall in inflation.

The principal upside risk that can be identified arises from the same simultaneity that characterised the sharp international downturn of the past several months, together with the speed and size of the policy responses being put in place around the world. Provided that policy-makers in key countries are able to stabilise financial systems to the point where growth in bank lending resumes, macroeconomic policy stimulus stands a good chance of restoring higher levels of confidence as well as providing a direct boost to demand. The rapidity with which production has responded to weaker demand could also mean that the inventory cycle will be relatively muted – that is, firms may have identified the slowing in demand at an earlier stage than in past cycles, so the unintended build-up in inventories may have been smaller. If so, when demand returns, production will pick up more quickly than in past cycles. In such a scenario, a synchronised upturn in the world economy would be a distinct possibility.

Box C: Climate Change Mitigation Policy and the Macroeconomy

In mid December, the Australian Government released a White Paper on the Carbon Pollution Reduction Scheme (CPRS) that outlines its plans for the targets and trajectories for emissions reduction, the design of the emissions trading scheme and how households and firms will be compensated. Until the legislation is passed, the starting date and details of the scheme remain uncertain, although the Government's intention is that the scheme will commence in the September quarter of 2010. While the effects of the CPRS have not yet been incorporated into the Bank's forecasts of inflation and activity, this Box describes the potential macroeconomic effects of the currently envisaged scheme and the implications for monetary policy.

By imposing a price on greenhouse gas emissions, climate change mitigation policies such as the Government's proposed CPRS are designed to change consumer and producer behaviour and alter the structure of the economy. This is likely to have effects on key macroeconomic variables, such as inflation and output, which are relevant for the setting of monetary policy.

The most direct effect will be to increase the price of emissions-intensive energy. Assuming an initial permit price of roughly $25 per tonne of carbon dioxide emitted (or the carbon dioxide equivalent of other greenhouse gases, CO_2-e), the retail prices of electricity and gas are estimated to increase by around 18 per cent and 12 per cent respectively.[1] With electricity and gas together accounting for 2½ per cent of the CPI, this could be expected to add around 0.4 per cent to the CPI over the first few quarters following the introduction of emissions permits. Increases in the prices of other goods and services that are emissions intensive are estimated to add at most an extra 0.7 per cent to the CPI, for a total effect of around 1 per cent.[2]

Thereafter, the ongoing increases in the permit price are expected to be more moderate, although there is likely to be considerable volatility from time to time. The trend increase would have little effect on overall inflation. Given an assumed initial emissions permit price of $25 per tonne of CO_2-e, permit prices would have to increase by 10 per cent for them to add 0.1 per cent to the CPI.

There could also be second-round effects on inflation from the CPRS if it influences businesses' and consumers' expectations about aggregate inflation, and hence their wage- and price-setting behaviour. However, the Government has committed to compensate most households for the increase in prices due to the CPRS, which should help households to look through the initial one-off increase in prices.

1 *The White Paper assumed an initial permit price of around $25 per tonne of CO_2-e in determining the compensation arrangements, though the actual price will be set by the market.*

2 *The estimate of the additional effects is based on the 2004–05 input-output tables and assumes that there is no substitution in production. To the extent that there is substitution away from emissions-intensive inputs in production, the actual effect on the CPI will probably be a little smaller although this will also depend on any future changes to the household expenditure weights used in the CPI.*

In the short run, climate change mitigation policies are likely to lead to slightly lower economic growth, reflecting the higher costs of production. A significant proportion of the capital stock is used in emissions-intensive activities (such as coal-fired electricity generators and aluminium smelters). Therefore, the return on current and future emissions-intensive capital would be lower under the new policy.[3] While this should be partly offset by an increase in investment in low-emission technologies, it is likely that growth in the overall capital stock, and in trend output, will be slightly lower than it would otherwise have been. The adoption of new, higher-cost technologies is likely to reduce standard measures of economic efficiency, while substitution towards less capital-intensive goods and services is likely to reduce aggregate labour productivity. Overall, assuming an emissions permit price of $25 per tonne of CO_2-e, it is estimated that the net result will be to reduce GDP growth by less than 0.5 percentage points in total, spread over the first couple of years following the introduction of the CPRS, with a reduction of about 0.1 percentage points per year thereafter.[4] These effects, however, must be considered against the longer-term costs of not taking steps to ameliorate the negative effects arising from climate change.

There is some uncertainty surrounding the extent and timing of the economic impacts arising from the introduction of climate change mitigation policies. One source of uncertainty is the permit price itself, which will be determined (subject to the price cap) in the market. The experience in the European Union suggests that such prices may be subject to volatility. There is also uncertainty surrounding the effect of the permit price on the economy. It is unclear how quickly firms will pass through increases in production costs to prices. Further, although energy cannot be easily stored, some firms may choose to increase production immediately prior to the introduction of the CPRS to lock in lower energy costs, while others may invest in new technologies prior to the introduction of the scheme.

Although the various uncertainties regarding the impact on the economy will raise challenges for monetary policy, these should be manageable. As with other structural changes affecting prices (such as the introduction of the GST in mid 2000), monetary policy will be set with a focus on medium-term price stability as a means of promoting sustainable growth in output and employment. Given that the increase in the price level is expected to be largely one-off, the Bank should be able to look through the initial increase in inflation. Beyond that, policy would need to ensure that inflation expectations remain anchored in order to avoid second-round price effects.

The Bank will continue to consider this issue as the CPRS goes through the legislative process.

3 *The Government has committed to providing some transitional assistance to affected firms to compensate for this loss.*

4 *These numbers are consistent with The Treasury's estimates in 'Australia's Low Pollution Future: The Economics of Climate Change Mitigation'.*