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| GDP growth %                            | 2006 | 2007 (f) | 2008 (f) | 2009 (f) |
|---|------|----------|----------|----------|
| Australia                               | 2.8  | 3.9      | 3.6      | 3.3      |
| New Zealand                             | 1.6  | 3.0      | 1.5      | 2.4      |
| United States                           | 2.9  | 2.3      | 1.9      | 2.9      |
| Euro zone                               | 2.7  | 2.7      | 2.0      | 2.1      |
| Japan                                   | 2.4  | 1.8      | 0.7      | 1.8      |
| China                                   | 10.7 | 11.4     | 10.2     | 9.1      |
| Other East Asia<br>(exc. Japan & China) | 5.6  | 5.9      | 5.4      | 5.2      |
| World                                   | 5.2  | 5.2      | 4.6      | 4.7      |

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## International Overview

Saul Eslake, Chief Economist

### The global outlook has become murkier

The financial market clouds hanging over the global economic horizon have darkened substantially in the early weeks of 2008. Major global banks have already incurred losses exceeding US\$130bn as a direct result of the meltdown in the US sub-prime mortgage market, and there are almost certainly more losses to come from that quarter, lifting the total to somewhere between US\$300bn and perhaps \$500bn. Further substantial losses could result from a possible downgrading in the credit ratings of the so-called 'monoline' bond insurers (which would in turn undermine the credit ratings and hence the value of the US\$2.5trn of municipal and other bonds which are enhanced by their guarantees), and from credit default swaps (derivatives which provide insurance against defaults on corporate borrowings) in the event of a rise in corporate bankruptcies.

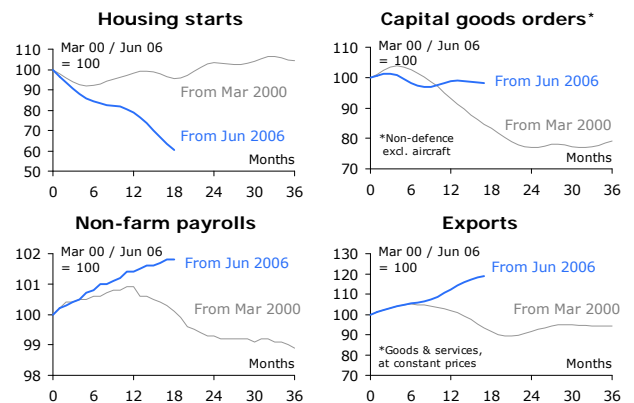
Fear that these actual or potential losses, and the underlying forces which have led to them (such as declining US house prices and rising mortgage defaults) could precipitate a US recession or even a global 'credit crunch' (by eroding the capital position of banks to the point where they were forced to ration credit, or dramatically inhibiting the refinancing of maturing debt securities) have seen share markets fall by around 18% from their late 2007 peaks, erasing nearly US\$9trn (equivalent to around 17% of global GDP) in paper wealth.

By historical standards, therefore, this is a serious financial crisis. And serious financial crises do often occur amidst, or lead to, serious recessions. One recent estimate based on an analysis of 18 bank-centred financial crises in 16 rich countries since the 1970s, most of which were preceded by a period of financial liberalization, is that such crises lead to a drop in real per capita GDP growth of 2%, and that it typically takes two years for growth to return to trend<sup>1</sup>.

### US recession possible, but not inevitable

And yet it does not seem obvious from the data that the US economy is in recession yet (as some are suggesting) or behaving in ways which parallel the onset of previous recessions. There's no doubt that the US economy is slowing. But most US economic indicators, other than those pertaining directly to the housing sector itself, have held up much better since the housing market peaked (in June 2006) than they did over the comparable period after the equity market peaked in March 2000, immediately before the recession of 2001 (which was the mildest of the ten recessions the US has experienced since the end of World War II, and which after data revisions last year no longer featured sequential quarterly contractions in real GDP).

### Most US economic indicators have (so far) held up better than before 2001 recession



Note: Data are indexed to their values at the peak of the equity market in March 2000 and in house prices in June 2000, respectively. Sources: US BEA, BLS, Commerce Department.

In particular, and notwithstanding the rise in unemployment in December (which many have taken as presaging a recession), the labour market has not deteriorated in the way it has ahead of previous US recessions.

This partly reflects the fact that the (non-financial) corporate sector is in much better shape – and thus under much less pressure to slash payrolls and capital expenditures – than it was ahead of the 2001 recession. The roughly 10% decline in the trade-weighted value of the US dollar (in contrast to the rise in the dollar which occurred after the 2000 peak in the equity market) has also helped, facilitating a rise in exports which has added more to real GDP growth over the past 18 months than the slump in housing activity has subtracted from it.

Whereas it was the response of the corporate sector to the slump in share prices that defined the contours of the recession in 2001, it will be the response of the household sector to the slump in house prices that largely determines whether the US economy falls into recession in 2008, and, if it does, how long and how deep that recession will be. History suggests that housing price 'busts' have larger wealth effects on consumption than share price 'busts', even though the latter typically entail larger price declines than the former, and that downturns following housing 'busts' last longer than those which follow sharemarket 'busts'<sup>2</sup>.

However the same history also suggests that the downturns in output associated with housing 'busts' typically begin to occur at the same time as the bust itself, whereas there is typically a lag of around three quarters between a sharemarket 'bust' and the ensuing downturn in economic activity. Clearly, that piece of history has not been repeated in this particular cycle, since the housing market peaked in June 2006, yet six quarters later we are still yet to see a contraction in real GDP.

<sup>1</sup> Carmen M. Reinhart and Kenneth S. Rogoff, 'Is the 2007 Sub-prime Financial Crisis so Different? An International Historical Comparison', NBER January 2008.

<sup>2</sup> Thomas Helbling and Marco Terrones, 'When Bubbles Burst', in International Monetary Fund, *World Economic Outlook*, April 2003, pp. 61-94; and Karl Case, John Quigley and Robert Shiller, 'Comparing Wealth Effects: The Stock Market Versus the Housing Market', NBER Working Paper No. 8606, 2001.

The majority of American home-owners (whose mortgages are at fixed rates) have not experienced a sharp rise in interest rates over the past two years (in contrast to the experience prior to previous recessions), and although they may well become more cautious about borrowing against the (declining) value of their homes in order to finance additional spending, it is not inevitable that they will curtail spending sufficiently abruptly to prompt an outright recession. Ironically, the minority of home-owners who have defaulted on their mortgages may find their cash-flow position has since improved, and may not have to cut back their other spending at all.

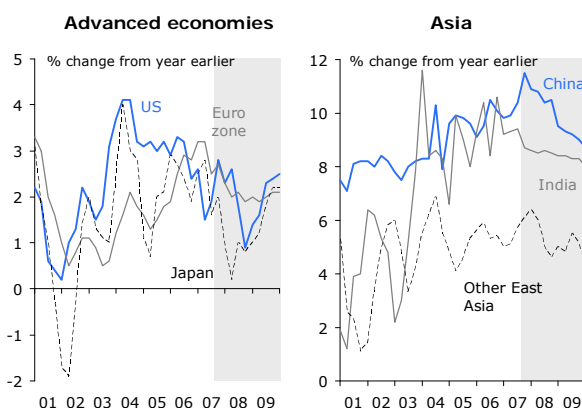
Although the possibility of a recession can't be ruled out, we think an extended period of below-trend growth is more likely. The more aggressive easing posture of the Federal Reserve, signified by its large rate cuts in late January, though helpful in curbing panic in the financial markets, will take some time to affect the broader economy; while the bulk of the fiscal stimulus proposed by the Administration (tax rebates for households) won't be felt until June. The first half of 2008 may therefore be especially soft, but we don't expect to see consecutive quarters of negative growth.

### Slower growth in other rich economies too

Other advanced economies are also likely to experience weaker economic growth this year. That reflects a combination of weaker export demand from the US (especially important for Canada), and currency appreciation (the obverse of the weakness in the US dollar) in the context of relatively soft domestic demand. This is especially significant in the case of Japan, where there has also been an abrupt contraction in housing activity following the introduction of new building regulations in the middle of last year. In Europe, uncomfortably high inflation rates will make central banks hesitant about easing monetary policy despite slowing economic growth. A contraction in financial services sector activity, and a decline in house prices, represent additional downside risks for the UK.

In sum, economic growth across the developed world is expected to average about 1¾% this year, down from 2.2% in 2007, and the slowest since 2003.

### Growth will slow in most countries in 2008



Sources: National statistical agencies; IMF; Economics@ANZ.

### Some easing in developing country growth

Developing countries have to date been relatively little affected by the turmoil in the US and European financial markets, although January's sharp falls in equity markets have been paralleled in Asian and other emerging share markets. With most developing economies now running large current account surpluses and having accumulated substantial levels of foreign exchange reserves, they are for the most part much less vulnerable to abrupt changes in capital flows than they were in the 1980s or 1990s. On the contrary, developing country sovereign wealth funds have emerged as an important source of capital for Western banks needing to replenish capital eroded by write-offs.

Moreover, the rapid growth of most of the bigger developing economies has been driven largely by domestic demand, rather than net exports. For example, of China's 11½% growth in 2007, around 9 pc points came from domestic spending, and only about 2½ pc points from net exports. Domestic demand accounted for an even higher proportion of India's estimated 8¾% growth in 2007. That doesn't mean these economies have 'de-coupled' from the US economy – their cycles were never especially closely aligned with the US anyway (as was apparent in 2001). But both countries' exports to the US slowed substantially during 2007, and will slow further this year. And, as argued in more detail below, Chinese domestic demand may also slow some in 2008. Together with slowing or falling exports to the US, this will also detract from growth in many of the smaller Asian economies for whom net exports account for a much larger share of GDP and for whom China has become a significant export destination.

### Broader consequences of market turmoil

Notwithstanding the initial success which the Fed's actions in January have had in stabilizing global financial markets, investor sentiment remains fragile and asymmetrically vulnerable to further bad news. It would be highly premature to conclude that markets are near to bottoming.

In addition to the downside risks for economic growth, the turmoil of recent months is likely to trigger a range of broader and longer-lasting consequences. The lack of transparency and perverse incentives laid bare by the US sub-prime mortgage crisis, the weaknesses in prudential regulation of banking systems exposed by the Northern Rock debacle and the fraud at Société Générale, and the heightened awareness of the systemic risks associated with complex derivatives are almost certain to lead to increased national regulation of banking and financial systems. The clout of sovereign wealth funds will be enhanced by the role they have played in 'bailing out' Western banks. And the resilience of developing economies in the face of the global financial turmoil will further highlight their growing importance in the global economy, and underscore the on-going relative decline of the United States.

## US Outlook

Mark Rodrigues, Senior Economist, Australia

### The probability of recession has risen...

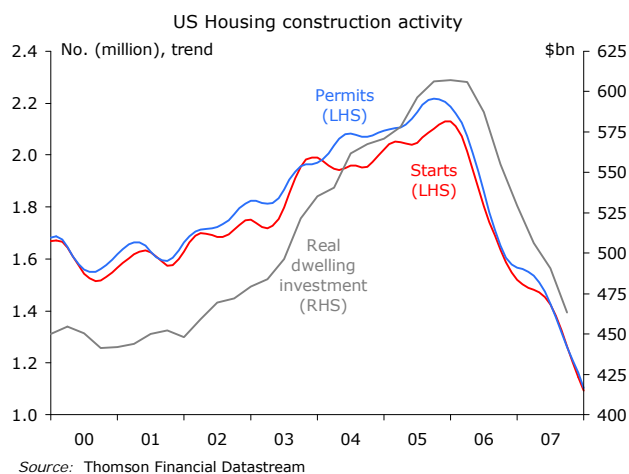
Economic conditions in the US have deteriorated. The dreaded 'r' word is being used more frequently in discussions about the outlook, and some well-respected research houses are now forecasting a US recession in 2008 as a central case scenario. We're not quite there yet, but the risks have clearly increased.

Against the backdrop of a weakening economic outlook and increasing downside risks to growth, the Federal Reserve has been spurred into action. It surprised markets with a 75bp cut in the fed funds rate to 3.5% on 22 January, outside its regular meeting schedule. Just as significantly, the Fed noted that even after this action, "Appreciable downside risks to growth remain." This represents a significant shift in rhetoric from earlier statements where it preferred to emphasise the upside risks to inflation over the downside risks to growth, and conveys a new sense of urgency (more unkind observers might describe it as panic) about the economic outlook.

### ...as housing woes worsen...

The epicentre of the slowdown remains the residential construction market. Real dwelling investment is already down 16.5% over the year to the September quarter, and leading indicators suggest the housing recession will deepen further in the quarters ahead. Housing starts fell by a further 14.2% in December to be down 38% over the year. Meanwhile new building permits fell another 8.1% to be down 34% in annual terms. Both indicators are now near their lowest levels since the early 1990s.

#### Housing yet to find a trough



Prospects for a near-term recovery look remote, with falling prices and a significant stock of unsold dwellings likely to weigh on new construction. But these constraints should begin to ease in the second half of 2008 as the inventory overhang unwinds and prices stabilise.

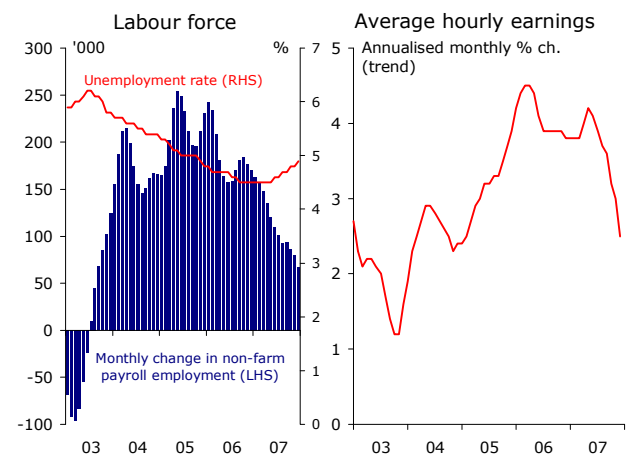
### ...and spreads to consumers

Beyond the apparent deterioration in the outlook for housing – which after all has been in recession for two years now – increasing pessimism about the US economic outlook reflects mounting evidence that the malaise in the housing market is now spreading through the rest of the economy, particularly to consumers.

To date, strong growth in household incomes have sustained consumer spending – which accounts for over 70% of the US economy – in the face of higher food and energy prices and falling asset prices. Indeed, over the year to November, personal disposable incomes grew at a very healthy pace of 5.8%. But there are now signs that less favourable financial circumstances will prevail in the period ahead.

Trend growth in non-farm payroll employment slowed to just 67,000 per month in December, down from 170,000 a year earlier. As a result, the unemployment rate has begun to rise, jumping to 5% from 4.7% in December alone, and up from a recent cyclical low of 4.4% earlier in the year. With labour market pressures easing, wages growth has begun to taper. Trend growth in average hourly earnings is now running at an annualised pace of 2.5% (in December), down from a recent peak of over 4% around the middle of the year.

#### Household income growth will slow



The deteriorating outlook for household incomes comes at a time when household wealth is under siege on multiple fronts. House prices, which account for roughly one-third of wealth, fell by 6.7% over the year to October, according to the S&P/Case-Shiller series. Meanwhile US equity markets, where another one third of household wealth is invested, have tumbled around 15% from the peaks in September 2007.

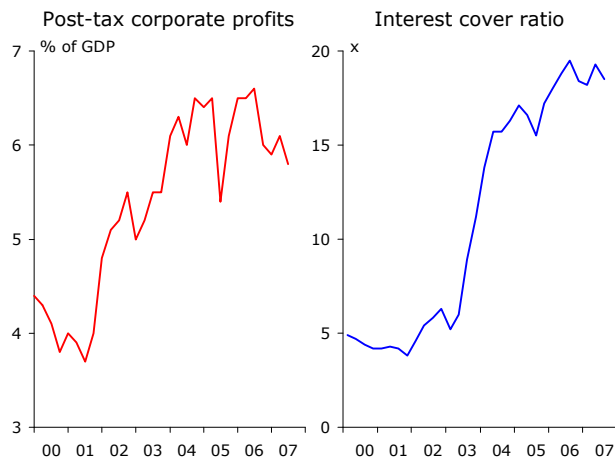
Against this backdrop, we are beginning to see the first signs of financial consolidation in the household sector. Core retail sales (excluding gas and autos) fell for the third time in five months in December, and in trend terms is now growing at an annualised pace of just 2.6%, below the current rate of inflation.

## The US can escape recession...

While the US economy is clearly slowing, there are good reasons why we think it can avoid recession.

First is that the corporate sector is in fundamentally good shape, particularly relative to conditions prevailing prior to previous recessions. Over the year to the September quarter, post-tax corporate profits have averaged just shy of 6% of GDP. This compares with an average level of profits of 4.1% of GDP in the year immediately preceding the 2001 recession. And while corporate leverage remains high by historical standards, the ratio of earnings before tax to interest – a measure of the serviceability of debt – is near record highs at 18.5, compared with interest cover of just 4.5 times ahead of the 2001 recession.

### Business is in better shape than prior to the 2001 recession

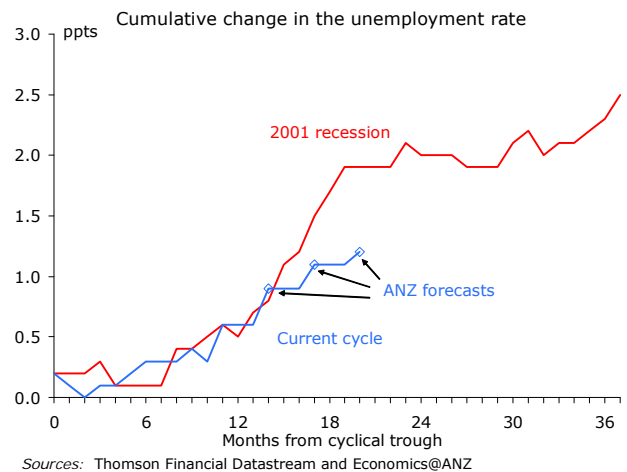


The general health of US corporates effectively moderates the traditional transmission channel through which the contractionary effects of sectoral 'shocks' are deepened and prolonged by an increase in unemployment. In this case, the 'shock' is the bursting of a house price bubble. And while this has certainly prompted a slowing in the economy as described above, it is unlikely, *by itself*, to generate a recession. As we have noted previously, house prices are unlikely to fall by anywhere near as much as would be required to slow household consumption sufficiently to generate a recession. It is worth noting that even in the wake of the 'tech wreck', when equity prices fell by over 40% from peak to trough, it was the increase in unemployment that ultimately plunged the US into recession.

This is not to say that that corporates won't shed labour. They already have to some extent, and the incentive will be to continue to restrain labour costs as the economy slows. Indeed we expect the unemployment rate to rise to 5.6%, from 5% currently, over the course of 2008. However, the absence of any obvious imbalances in the corporate sector (outside the financial industry of course) makes it less likely that there will be a sufficiently large amount of job losses to generate a recession.

For example, even if our relatively pessimistic forecast for the unemployment rate is realised, this would represent a 1.2ppt increase from cyclical trough to peak. This would be less than half the 2.5ppt increase in the jobless rate during the last cycle.

### The unemployment rate is unlikely to rise as much as following the 2001 recession



Another key difference between now and 2001 is the strength of the export sector. Back then, external demand collapsed and the US\$ actually appreciated, driving a fall in exports. This time around, the US\$ has depreciated to historic lows while external demand, particularly in Asia, has remained robust. As a result exports increased by over 10% over the past year, and are likely to continue to contribute to overall GDP growth in the year ahead, offsetting some of the weakness in domestic demand.

Finally, policy makers have made it clear that they are prepared to do whatever is necessary to stave off recession. The Federal Reserve has already come to the party with 175bp worth of interest rate cuts in the last five months, with the market expecting another 150bp by September. This would put the fed funds rate at 2%, not that far off the low of 1% reached in the last recession. On the fiscal side, the Bush Administration has announced a series of measures aimed at stemming the rate of defaults on sub-prime loans, and more recently, a \$145bn fiscal stimulus package, which is equivalent to 1% of GDP.

### ...but the outlook is finely balanced

We remain of the view that the US economy will avoid recession, although we conceded that the outlook is finely balanced. Overall, GDP growth is expected to slow to 1.9% in 2008 from 2.3% in 2007. The downturn in domestic demand is likely to be even more severe, although this will be offset to some extent by the impetus from the external sector.

Beyond 2008, if the significant monetary and fiscal stimulus does its job, the economy is likely to be on the road to recovery, and the fed will once again return its focus to maintaining low and stable inflation.

## Euro zone and UK Outlook

Amber Rabinov, *Economist, International*

### Between a rock and a hard place

European central banks are in a bind – turmoil in financial markets and a rapidly slowing US economy are threatening to infect their economies. Meanwhile, inflation is either at, or expected to reach in the near term, multi-year highs. Do the banks choose to stick to their guns and faithfully pursue their mandated inflation objectives, or do they cut rates in line with the US Federal Reserve to prop up economic growth and risk losing their inflation-fighting credibility? In the first half of 2008, we are likely to witness two very different strategies being played out by the European Central Bank (ECB) and the Bank of England (BoE).

### While the ECB plays the waiting game...

The ECB is committed to keeping headline inflation 'close to but under 2%' and annual money supply growth to an average of 4.5%. With current annual inflation running at 3.1% (the highest in 6½ years) and annual money supply growth in excess of 12%, the path forward should be clear: tightening bias. And rightly so, ECB President Jean-Claude Trichet has been jawboning the markets, reminding them of central banks' job to "solidly anchor inflation expectations." After all, the bank cannot risk being seen as all talk: consumer expectations of higher inflation can become a self-fulfilling prophecy as workers' wage demands surge on the (perceived) declining purchasing power of incomes.

There is evidence to suggest that this is beginning to occur, despite Trichet's repeated warning that the bank will act to prevent the emergence of second-round effects. In Germany, the unions have begun their annual wage negotiations, with claims of 4% to 10% on the table. Although in the past actual wage outcomes tend to not meet union expectations, one rail union has already achieved an 11% pay rise for its members.

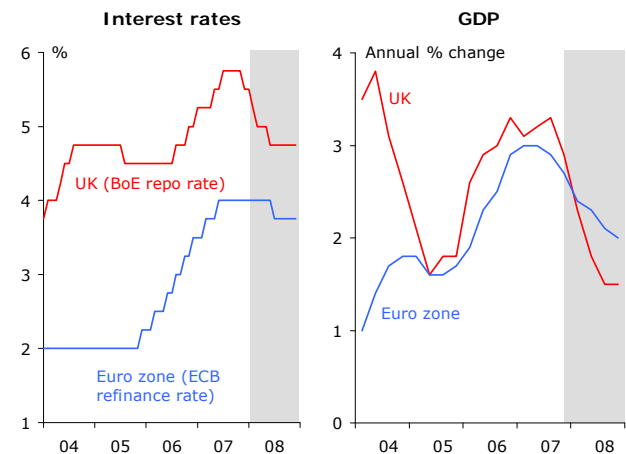
However, the outlook for the Euro zone is not woeful. The economy is still expected to expand around trend growth of 2% this year, edging up to 2.1% in 2009. Although downside risks exist to this forecast with the full impact of a US downturn not entirely clear, ECB officials are confident that any effect "will be less strong than in former times." Employment, despite being a lagging indicator of economic activity, is strong with the November unemployment rate of 7.2% the lowest ever recorded. Notwithstanding the fact that Euro zone residents are not the most exuberant consumers (consumption grew at an annual rate of just 1.6% in the September quarter versus overall GDP growth of 2.7%), as long as they keep their jobs, the economy should be able to maintain reasonable momentum.

Nonetheless, recent financial market events have sent confidence indicators south, and forward indicators of manufacturing and services activity

have slowed to their long-run average. The widening interest rate differential between the Euro zone and US is also adding unwelcome upward pressure on the Euro and hurting exporters. Moreover, if business and consumers delay or even revoke near-term spending plans, this may help to slow inflation, an unlikely positive outcome of the current situation.

In summary, although markets have moved to price in a number of rate cuts by year's end, we believe this to be an overreaction to the Fed's surprise 75bp rate cut in January. We do not expect the ECB to cut rates anytime before the back end of 2008.

### Interest rates to dip as growth slows further



Sources: Bloomberg, Economics@ANZ

### ...the BoE is not expected to be as patient

Conditions across the English Channel are somewhat more dire. Although household consumption grew at an average annual rate of 3.2% in the first three quarters of 2007, surging on solid growth in both employment and wages, such exuberance is about to come to an end. House prices have tumbled in four of the past five months, and are now just 3.4% higher than a year ago as compared to a recent annual growth peak of 15% in April last year. This is already having a considerable impact on consumer sentiment, and is beginning to filter through to the real economy via weaker retail sales (despite widespread discounting). Combined with the upheaval in financial markets (remembering that 'the city,' a global financial powerhouse, is a significant driver of the overall economy) real GDP growth is forecast to dive to below 2% per annum in the first half of 2008 from a robust 3.1% in 2007.

The BoE's decision-making process would be clear if not for the fact that inflation is widely forecast to breach its 2% target, rising above the current rate of 2.1% and possibly reaching beyond 3% in 2008. Despite this, the monetary policy committee in December showed its willingness to cut the repo rate in the face of financial market difficulties and increasingly evident economic weakness. ANZ believes the BoE will continue to cut rates alongside the US Federal Reserve in the first half of 2008, with the repo rate to trough at 4.75% by June.

## Japan Outlook

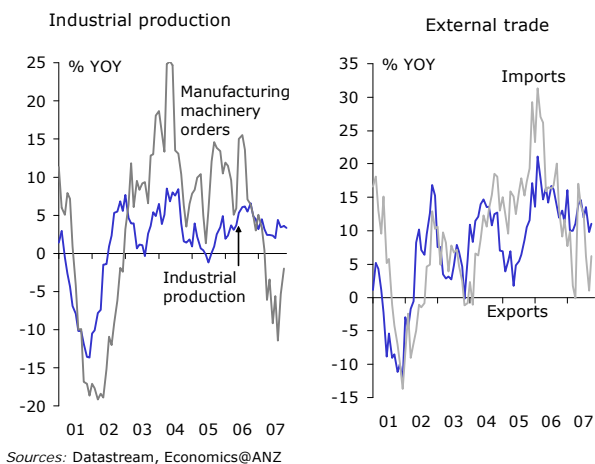
Amy Auster, Head of International Economics  
Jasmine Robinson, Senior Economist, International

### Outlook has deteriorated

The Japanese economy is looking decidedly downbeat as a confluence of external and domestic factors combine to worsen the outlook for 2008. On the external front, softening demand and a stronger yen are likely to cause exports to slow. Export growth declined from 13.5% over the year to August to 9.1% in November, and appear likely to have risen only marginally from the third to the fourth quarter. The slowdown in the US economy is causing US imports to slow, and thereby reducing demand for Japan's exports to the US. About 21% of Japan's exports were destined for the US in the first eight months of 2007 – a significantly higher percentage than most other East Asian economies (including China) – but annual export growth to the US has been negative since April.

Heightened uncertainty in global financial markets has also brought rising risk aversion and an unwinding of carry trades, causing the yen to appreciate against most currencies over the past few months and affecting broad export competitiveness. As a result, net exports may not have contributed at all to real GDP growth in the fourth quarter of 2007, in sharp contrast to the previous five quarters, and this situation is likely to perpetuate through 2008.

#### Exports losing steam



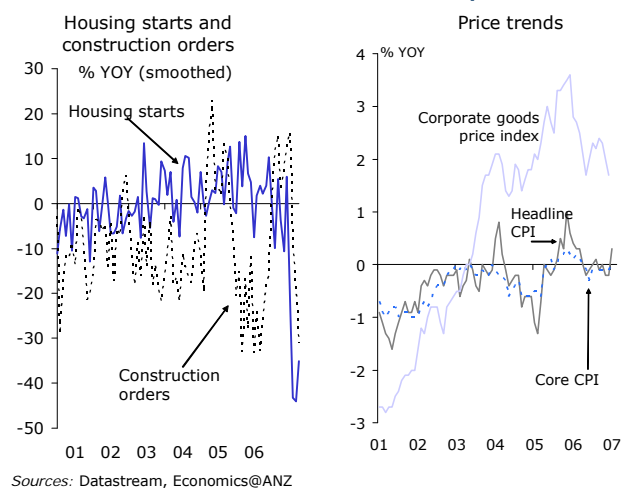
On the domestic front, demand has slumped with a collapse in residential construction, following the introduction of stricter building regulations in June and a resulting slowdown in the approvals process. Housing declined by 7.9% on a quarterly basis (and 11.1% on an annual basis) in the third quarter of 2007. Although the contraction in the annual rate of housing starts and total construction works improved in November, the levels are still very low. On the basis of recent data, the trough in the Japanese housing market could rival that of the US, although we expect it to be followed by a much sharper recovery in the second or third quarter of 2008.

While the housing market represents a short-term problem, the combined effects of falling investment and weak exports threatens any possible improvement in wages and disposable income. The December Tankan survey slumped to its lowest level in 2 years, with manufacturing sentiment falling to +19 from +23 in the previous quarter. Sentiment among non-manufacturing and small and medium enterprises was uniformly weak.

After growth in disposable income slowed in the third quarter, household sentiment and expenditure followed suit. Measures such as the volume of retail sales are tepid. The ESRI's consumer sentiment index fell to 38.0, the lowest level since this survey started in April 2004. December department store sales fell by 5.3% in the month after a 4.6% increase in November. The much-hoped for improvement in consumption has yet to come through, and now appears unlikely as business sentiment has deteriorated with the external outlook.

In its October economic review, the Bank of Japan lowered its forecast for real GDP growth for Japan's financial year 2007 (year ending 31 March 2008) to 1.8% compared with an earlier projection of 2.1%. Stopping short of providing a figure, the BOJ downgraded its forecast in January, indicating that growth will be slightly below the potential rate of 1.5-2%. Nevertheless, the BOJ's outlook for FY2008 is for the economy to pick up. This is contrary to our expectations of a further moderation in growth to 0.7% in FY2008 – the slowest pace of expansion since 2002 – given the expected softness in external demand and sluggish domestic demand.

#### Slide in domestic demand could hamper reflation



Ironically, consumer price inflation has begun to accelerate at long last. Annual headline inflation rose to 0.6% per annum and core to 0.4% in November. While the downward revision to its growth forecasts has stoked expectations of a BOJ rate cut, we expect that the BOJ will keep to its goal of policy normalisation but this is not likely to resume until the two present shocks to the economy dissipate. We have put back the next rate rise until the third quarter of 2008.

## Asia – The Year Ahead

Amy Auster, Head of International Economics  
Jasmine Robinson, Senior Economist, International  
Amber Rabinov, Economist, International

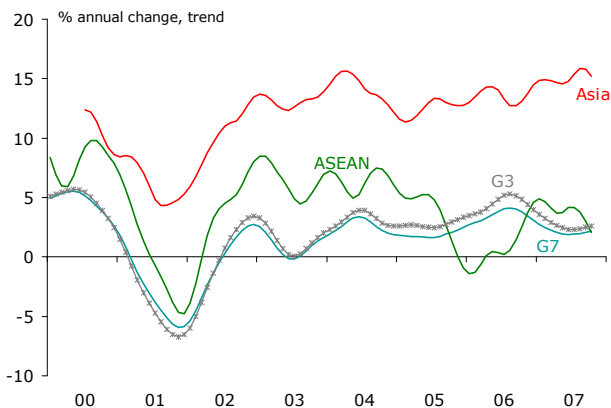
### Slower growth becomes more evident in the second half .....

The Asian economies have yet to be seriously affected by the deepening slowdown in the US economy. Decoupling is working so far, at least in the real economy sense. The US only represents 14% of global imports, and in fact North American and the East Asian region have a similar share of global imports at 17.5% each. In contrast, the European Union claims 28% of global imports. Unsurprisingly, exports to the EU are fast expanding. EU exports are at least as important as the US, if not more so, to export growth for the Asian region overall.

It is perhaps therefore not surprising that Asian export growth remains strong, rising by 20% on an annual basis in October 2007 – the last available data point – for all of East Asia excluding Japan. For the ASEAN economies, export growth rose to 11% per annum in October from 8.4% in September.

### Asia IP continues to accelerate

North Asia strong IP led by Taiwan and Korea, whereas China is flattening



Sources: Bloomberg and Economics@ANZ

Two other potential channels of transmission exist from the US slowdown to Asia. One is through the debt markets, with the freeze in US dollar liquidity. This has affected the Australian market, where funding costs have risen considerably. It has not affected East Asia, however, given abundant local liquidity and little need for US dollar funding.

The second channel of transmission is through the equity markets. In Asia, all equity markets are down by double-digit levels. Shares in Hong Kong and Taiwan have suffered the biggest losses, down 25% from last year's peak, closely followed by Japan which fell 24%. This channel is still unfolding, and seems likely to take a toll on household wealth in Asia in the coming months and may therefore slow consumption in the more advanced East Asian economies of Hong Kong, Taiwan and Korea.

### .. as China's slowdown becomes more pronounced

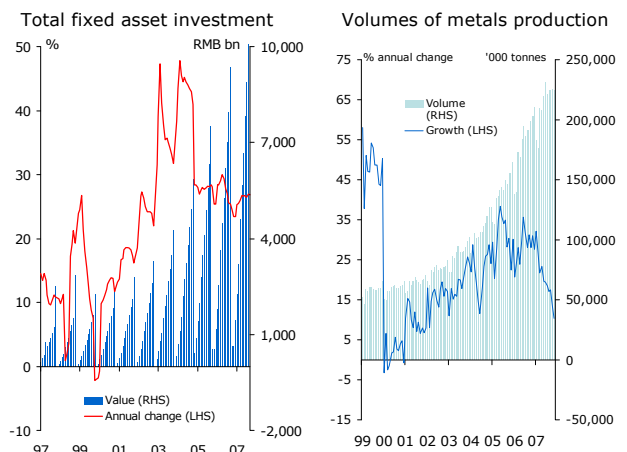
The key block to another stellar year for economic growth and asset prices in Asia is the slowdown that is already in progress in China. Our forecast is for real GDP growth in China to slow from a peak of 11.9% annual growth in Q2 2007 to 10.8% in Q1 2008, and to 9.5% in Q4 2008. Many observers have speculated that the Chinese economy would slow after the August 2008 Beijing Olympics. We agree with the timing, but not the cause.

The key driver for our China growth forecast is an expectation that the pace of fixed asset investment will slow. Fixed asset investment (FAI) is 40% of GDP, and China's key growth driver. In China, there are two main contributors to fixed asset investment: real estate, and manufacturing. Together they account for 50% of FAI and contributed nearly 20 percentage points of growth last year. Both will be negatively affected by government policies adopted in the past year aimed at cooling investment.

For real estate investment – driven by residential development – tighter liquidity conditions, following the appreciation of the currency and seven interest rates hikes since 2006, will have an effect. The government is taking administrative measures to cool the property market in key urban locations, and we believe there is also less urgency to proceed with housing development in some more remote locations now that the 17<sup>th</sup> Communist Party National Congress has passed.

Manufacturing investment is expected to slow amid signs of rising inventories and excess capacity, brought about in part because of the government efforts to reduce the trade surplus. Export tariffs have been introduced in key areas, such as steel, while imports are being encouraged. Ironically, the government's regulations may end up being overkill in light of the likely fall in G3 demand. As can be seen in the chart below, FAI has flattened in recent months while the volume of metals production has fallen from 20%+ per annum growth since 2004 to less than 10% per annum as of November.

### Fixed asset investment slows



Sources: CEIC, Bloomberg and Economics@ANZ

Unfortunately, net exports and domestic consumption are unlikely to fully offset the slowing in fixed asset investment. Net exports represented 7.5% of GDP as of end-2006, as against 40.8% for gross fixed investment, and contributed about 3.5 percentage points of growth. Net exports are likely to make a lower contribution to growth this year given falling external demand and the government's regulations to reduce the trade surplus.

That leaves domestic consumption, seen as China's saviour. The government has had a policy intention to lift income levels, particularly in rural areas where there have been social tensions over rising income disparities. The measures seem to have worked, as wage data shows a marked acceleration and retail sales surged past 18% per annum growth in recent months – a level not seen for several years.

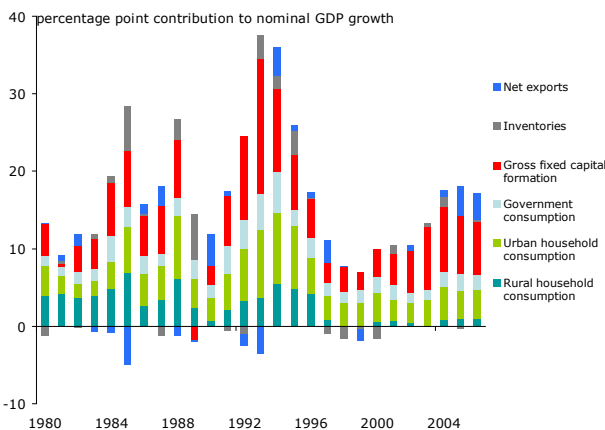
**Rising wages and consumption**



Sources: CEIC, Bloomberg and Economics@ANZ

However, both urban (26% of GDP) and rural consumption (13.7% of GDP) would have to accelerate markedly to make up for lost ground on investment. The chart below shows the contribution to nominal GDP growth on the expenditure side over the past several years. Note how declining net exports in the past have been absorbed through an expansion of inventories. A key risk in this business cycle is that listed government-held companies, with greater transparency and more efficient balance sheets, will be unable to hold excess capacity and will instead reduce production and jobs growth.

**Contribution to GDP growth**

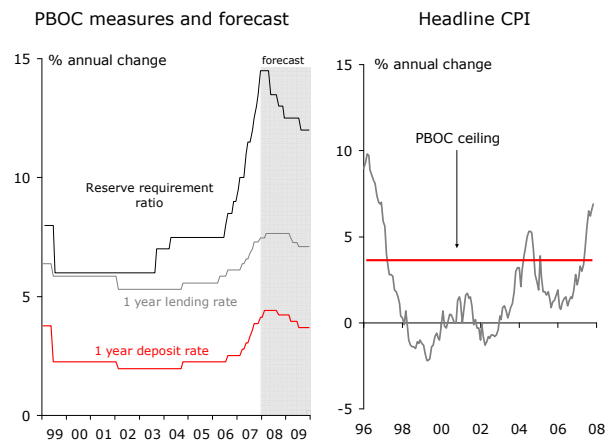


Sources: Datastream, CEIC and Economics@ANZ

This seems unlikely to happen, in part because the boost to consumption brought about by higher wages is also spurring an outbreak of inflation. Although some commentators have dismissed persistently high inflation as due to short-term fluctuations in food prices, in fact underlying trends look grim. Our estimate for core inflation shows a shift from deflation in 2006 to core inflation above 1% in recent months, with rises across household goods, health care, social services and housing. Food comprises more than 30% of the basket of goods in headline inflation, and so tends to dominate the trends; however, it is also true that it is a significant part of expenditure for an average Chinese household. High prices that persist for months and are spread across many food groups including meat, eggs, edible oils and grains cannot be dismissed as "temporary".

In addition to wage inflation already mentioned, base money growth has been well above the central bank's target for most of the past year. M2 growth has accelerated from 15.8% per annum in January to 18.5% per annum as of November, well above the central bank's target limit of 16%. There is evidence that the velocity of money is also increasing, with rising cash in circulation and a shift from term deposits to time deposits as more retail investors participate in the stock market.

**Evident inflation pressures**



Sources: CEIC, Bloomberg and Economics@ANZ

Inflation pressures are expected to persist until July or August this year. We expect the PBOC to raise interest rates once more, after Chinese New Year in early February. More importantly, we are forecasting a more rapid pace of currency appreciation – particularly against the weak US dollar – in the first half of this year to USD/CNY6.7 or an appreciation of nearly 8% from the current spot rate.

**The rest of Asia follows China**

The moderation in growth across the rest of Asia is likely to become more evident towards the second half of the year as China's slowdown becomes more pronounced. Nevertheless, Asia is in a much stronger macroeconomic position than it was a decade ago to weather the headwinds of the current global slowdown and financial market turmoil with a healthier balance of payments profile and rising

income levels lifting domestic demand. Asia has also successfully diversified its export base. In addition, fiscal management has improved through the years, leaving scope for governments to adopt expansionary fiscal policies to pump-prime the economy if required. Growth across Asia is forecast to ease by between half and two percentage points from 2007 – the exceptions being Indonesia and Thailand where growth is expected to accelerate. East Asia excluding Japan and China is projected to expand by 5.4% in 2008 from 5.9% in 2007.

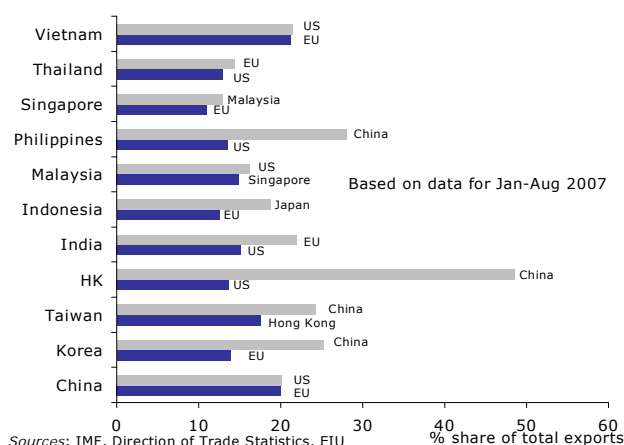
#### Asian growth forecasts

|                            | 2007e | 2008f | 2009f |
|----------------------------|-------|-------|-------|
| China                      | 11.4  | 10.2  | 9.1   |
| Hong Kong                  | 6.0   | 5.4   | 4.1   |
| Korea                      | 5.1   | 4.1   | 4.3   |
| Taiwan                     | 5.9   | 4.8   | 4.1   |
| Indonesia                  | 6.2   | 6.5   | 6.0   |
| Malaysia                   | 6.1   | 5.8   | 6.3   |
| Philippines                | 6.9   | 5.3   | 4.9   |
| Singapore                  | 7.5   | 5.5   | 6.3   |
| Thailand                   | 4.4   | 5.2   | 5.5   |
| Vietnam                    | 8.5   | 8.0   | 7.0   |
| India                      | 8.8   | 8.5   | 8.5   |
| East Asia ex Japan & China | 5.9   | 5.4   | 5.2   |
| East Asia ex China         | 9.7   | 8.7   | 7.9   |

Source: Economics@ANZ

Northeast Asia's exposure to China will see external demand slowing more significantly later this year. China is the top export market for Korea and Taiwan, accounting for about a quarter of total exports while China absorbs close to half of Hong Kong's exports. In the case of Korea, consumer sentiment appears to be weakening in the face of high energy prices, higher interest rates and a new bout of concern around consumer finance in the domestic banking system. The wild card in the outlook for 2008 is politics, following the election of Lee Myun-bak in December. MB Lee pledged to lift real GDP growth to 7% per annum and more than double the rate of per capita income.

#### Asia's major export markets



The recent victory by the Kuomintang party (KMT) in Taiwan's legislative elections held in January could foreshadow an improvement in ties with China, signalling a possible easing in cross-Straits tensions and increased opportunities for trade and investment which would bode well for Taiwan's medium-term growth prospects. Falling interest rates in Hong Kong will help to stimulate consumption and investment but the slowdown in external demand, is likely to see economic growth ease to 5½% in 2008.

Within Southeast Asia, Singapore, Malaysia and the Philippines are expected to be more vulnerable to a sharp slowing in US consumption as an anticipated downturn in electronics demand, which makes up a sizeable share of their exports, persists at least in the first half of this year. Nevertheless, domestic demand is likely to help cushion the drag from exports with Malaysia and the Philippines forecast to continue to post an above-trend rate of expansion. Singapore's real GDP growth is projected to ease to 5.5% but this comes after two successive years of 7.5-8% growth.

For Indonesia and Thailand, an expected pick-up in domestic demand should help to offset the adverse impact of a slowdown in external demand. With Q3 2007 GDP growth exceeding expectations, the Indonesian economy is headed for its strongest year in a decade. Real GDP is estimated to have expanded by 6.2% in 2007 and is projected to pick up in 2008 to 6.5%. Growth will be lifted by investment and private consumption against a lower interest rate environment. The government also plans to step up investment, spending an estimated IDR100 tn (US\$10.6bn) on infrastructure projects in 2008.

Momentum in the Thai economy is expected to accelerate as consumer and business sentiment improves with a return to democratic rule. December elections saw the People Power Party (PPP) secure 232 seats in the 480-seat parliament. The PPP has formed a coalition with five other parties to claim a majority in parliament. Domestic consumption and investment are expected to rise after a sluggish performance in 2007, clouded by political uncertainty. Real GDP is forecast to expand by 5¼%. The risk to the outlook is if policy implementation is delayed through lack of consensus.

While exposure to the US, and to a lesser extent, China, will adversely impact both the exports of goods and services from India, domestic consumption and investment is likely to remain resilient. The US is India's single largest export market, absorbing about 15% of total exports. China accounts for around 8% of the total. Our forecast is for the economy is expand by 8.5% in the coming fiscal year.

#### Inflation to ease in second half

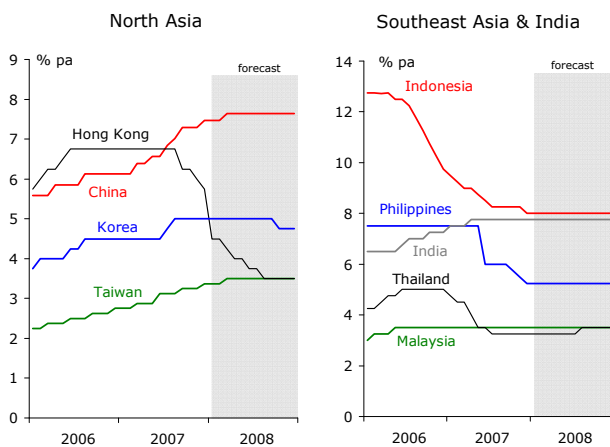
Inflation has been a recurring theme across Asia with high food and energy costs lifting consumer prices, prompting most Asian central banks to keep

policy rates on hold or tighten slightly in the first half of this year despite aggressive easing in the US.

In Southeast Asia, there had been rapid declines in headline inflation in 2006 and 2007 due to the base effect, after the 2005 surge in oil prices and a subsequent reduction of fuel subsidies in Indonesia, Thailand and Malaysia had caused domestic CPI to accelerate rapidly. Nonetheless, headline CPI is again accelerating in the region.

A marked slowing in global growth accompanied by a softer commodity price outlook, which will become more evident in the second half, would, however, help to ease inflation concerns, leaving scope for central banks to ease monetary policy in order to support growth.

#### Inflation limits scope to respond to slowing external demand



Sources: Datastream, Economics@ANZ

For countries that use interest rates to manage inflation, this economic scenario points to flat or declining rates either in late 2008 or early 2009. We expect the Bank of Korea to be in a position to cut interest rates by the end of the third quarter, while the central banks in Taiwan, Indonesia, the Philippines and Thailand are expected to be on hold.

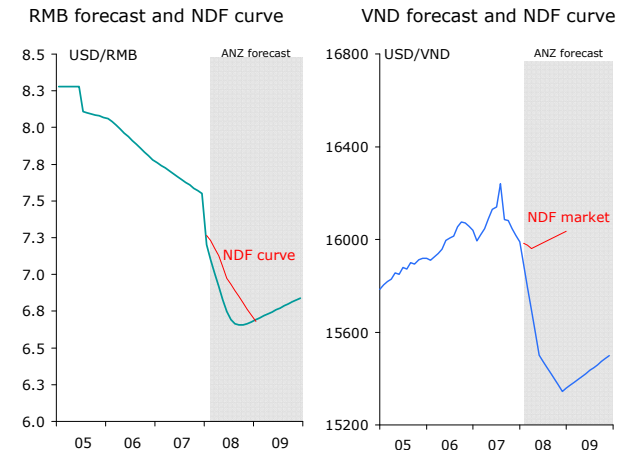
For countries with managed exchange rates – CNY, MYR, SGD and VND – a marked slowing of China's economy in the second half and moderating inflation, spells the end of aggressive currency appreciation, and perhaps even some reversals. The moves will be most notable against the US dollar, as the US dollar should recover in the second half of the year as the US economy stabilises and the Fed stops cutting interest rates.

Particularly with the CNY, we are forecasting a strong rate of appreciation in the first half of the year to USD/CNY6.73 as of June – ahead of present NDF pricing – followed by a nearly flat line to bring the end of the year exchange rate to USD/CNY6.66. In Vietnam, we are expecting the dong to appreciate to USD/VND15,345 against the US dollar by end-2008, with most of that movement again happening in the first part of the year.

In this environment, we expect to see some depreciation against the US dollar in the second half

of the year as the US dollar strengthens. A significant movement of the US dollar against the euro, from a forecast EUR/USD1.50 as of June 2008 to EUR/USD1.42 by December, would cause the majority of Asian currencies to gain strength against the euro in the second half of 2008. In contrast, we forecast an ongoing slight appreciation of the yen against the US dollar through the course of 2008.

#### Managed currencies may accelerate in the first half



Sources: Bloomberg and Economics@ANZ

#### Expect greater volatility ahead

Aside from general trends around appreciation or depreciation, the key factor to monitor in the currency markets in 2008 is volatility. The floating currencies will remain volatile, as they have been in late 2007. Any prolonged sell off in the US and/or Asian currency markets would cause volatility to rise even further for this group of currencies.

However, even managed currencies are likely to experience increased volatility in the second half of 2008. This is particularly true for the CNY and the MYR, both of which were freed from their US dollar peg in July 2005. Since that time, the authorities have been active in developing their domestic foreign exchange markets, including instruments with which to hedge currency exposure. The Chinese authorities in particular have explicitly stated their intention to increase exchange rate volatility and to avoid making the CNY a "one-way bet."

As the Chinese economy slows and the imperative to tighten monetary policy eases, we expect not only the pace of CNY appreciation to slow but also for more volatility to be introduced into the intra-day market and the inter-day exchange rate fixing. Similarly, in late December, the Vietnamese authorities widened the band within which the dong trades, clearly signalling more room for the currency to move. Investment and hedging strategies in the currency markets will need to take account for greater uncertainty and more volatility in the year ahead.

## Australian Outlook – Not the end of the world as we know it

Tony Pearson, Head of Australian Economics

### For Australia the problem will be too much growth, not too little

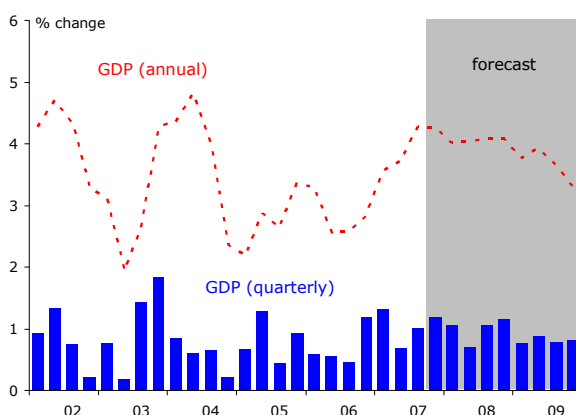
Global financial markets have turned particularly ugly in recent weeks and the outlook for the global economy has deteriorated. From some perspectives it must look as if the period of unprecedented prosperity the world has known for the past half decade is drawing to a close.

That in turn has raised concerns about whether Australia's record 16 years of continuous growth is also about to end. The good news is that we think not. We expect Australian growth to motor on at or above trend for the next two years. Indeed, the problem for Australia will not be too little growth, but rather whether growth can be sufficiently constrained to ease inflationary pressures to an acceptable level over the medium term.

Our optimism reflects a number of considerations. Australia entered the current period of volatility with considerable momentum, with growth above trend and accelerating. Real gross domestic product (GDP) increased by 1.0% in the September quarter and by 4.3% over the year, the strongest growth since the June quarter 2004, and well above the non-inflationary trend rate of about 3% to 3¼%. This was in the face of what were already strong headwinds of financial market volatility, a deteriorating economic outlook in the US, rising petrol prices and rising interest rates. This suggests the Australian economy possesses considerable resilience.

Although global economic growth is slowing, the slowdown is most pronounced in developed countries, most notably the US, Japan and to a lesser extent, Europe. In contrast, growth in that part of the world of most relevance to Australia – Asia, and particularly China – is expected to remain robust.

### Annual growth surges to a 3-year high



Source: Australian Bureau of Statistics

In addition, although Australian financial markets have been caught up in the global market turmoil, Australian financial institutions have not recorded the large losses of some offshore banks and remain sound and willing to lend. All credit-worthy household and business borrowers in Australia still have ready access to funding, albeit at a slightly increased cost. To date, they do not appear to have reduced their appetite for credit and there is no sign of a "credit crunch" in Australia.

And finally, recent widespread rains are holding out the promise of a very substantial rebound in rural production over the next year, which will add to what is already a robust outlook for economic growth.

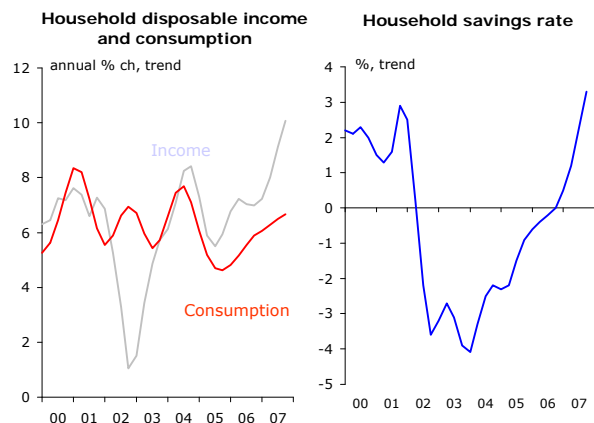
Overall, it is difficult to be pessimistic about the outlook for Australia, despite the global woes. We estimate growth in Australian GDP will have been close to 4% in 2007, and forecast still robust rates of around 3½% in 2008 and 2009. Those are growth rates which will be the envy of most other first world countries.

### Unfazed consumers keep spending

One reason the global turmoil is not having much impact on the Australian economy is because Australian consumers are still spending at a record pace. Over the year to the September quarter, the volume of household consumption grew by a very robust 4.5%. And this strong spending continued into the December quarter, with the nominal value of retail sales increasing by 8.1% over the year to November, the strongest pace since June 2004. Also, sales of new motor vehicles have been robust, increasing by 9.1% in 2007, with annual sales exceeding one million units for the first time ever.

Spending continues to be supported by strong gains in household disposable income. This reflects continued strong growth in aggregate employment (2.5% over the year to December), solid wages growth (4.2% over the year to the September quarter), and personal income tax cuts, with another \$8bn in the 2007-08 financial year.

### Household spending supported by strong income growth



Source: Australian Bureau of Statistics

These positives have offset the dragging effect of higher interest rates. With total household debt at \$1060mn, each 25bp increase in interest rates reduces household disposable income by a bit less than \$2.5bn (because not all loans are at variable rates, plus there are positive offsets from higher deposit rates). So in broad terms the two Reserve Bank 25bp cash rate rises in August and November plus the average 0.15% pass through of higher market funding costs by institutions has not fully offset this year's personal income tax cuts.

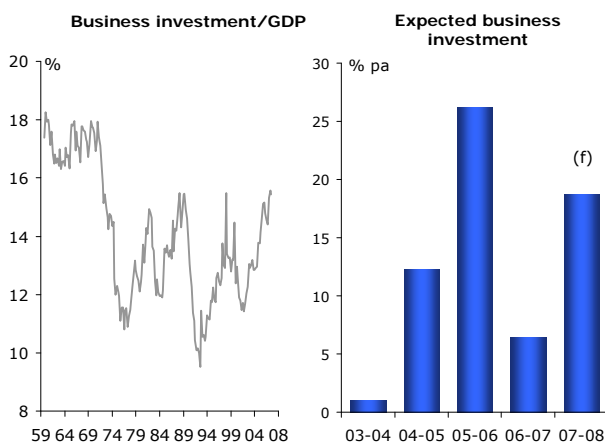
The higher spending has not been funded by eating into savings. Quite the reverse, with households gradually increasing their savings rate over the past four years. In aggregate, households are now living within their means in the sense that the savings rate is now (slightly) positive. We cannot be certain of the reasons behind the return of household fiscal rectitude, but it probably reflects higher interest rates (discouraging borrowing and encouraging saving at the margin) and also the sheer strength of the growth in household disposable income (there may be limits as to how quickly consumption can be increased).

We expect this buoyant income and spending environment for households to continue into 2008. Employment and wages growth will remain strong, and there is another \$10bn in personal income tax cuts from 1 July this year.

### Businesses continue to invest

The other key driver of growth in recent years has been business investment. In the June and September quarters business investment comprised about 15½% of GDP, the (equal) highest contribution in 35 years. This has been important for the economy, not only as a driver of growth today, but also because it expands the productive infrastructure of the economy, raising the speed limits to growth in the future.

#### Strong business investment set to continue



Source: Australian Bureau of Statistics

The good news is that there is no sign this business investment boom will end anytime soon. The latest capital expenditure surveys show that business plans to increase the nominal value of investment by around 19% in 2007-08. It seems that

businesses have not been deterred by higher interest rates, financial market volatility or uncertainty about the global outlook. This is a strong vote of confidence in the prognosis for the Australian economy.

### Strong appetite for credit

Interest rates in Australia have been rising for nearly six years, but demand for credit remains robust. Over the year to November, private sector credit increased by 16.2%, the strongest pace of growth since October 1989. The primary driver was borrowing by business, which rose by an exceptionally strong 23.6%. This figure would have been boosted by some reintermediation, as business borrowers who face funding difficulties in the securities markets return to financial institutions for their funding. Nevertheless, the business credit numbers are not inconsistent with the buoyant business investment expectations as another sign of confidence in the Australian economy.

Households have tempered their demand for credit somewhat, in line with a desire to rebuild savings. Lending for housing rose by around 11½% over the year to October and November, the slowest pace of growth for nearly 10 years. Demand for other forms of household credit has decelerated a touch in recent months but remains generally robust.

The continued strong demand for credit would be one indicator for the Reserve Bank that the current level of interest rates is not unduly restrictive.

### Rural – drought turns to flood

At last there have been heavy and widespread rains across much of Australia's agricultural regions. At the time of writing, two thirds of Queensland was under water, and there had been recent flooding in the northern coastal regions of New South Wales. Prospects are now much brighter for dryland agriculture and grazing. For some irrigators water allocations for 2008 have already improved, but dams are still not full and it will take time for water to flow south to the major irrigation regions. There is hope that a further lift in water allocations may not be too far down the track.

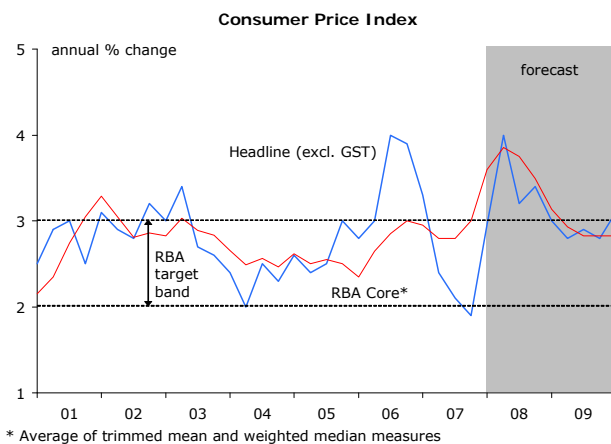
As a result, farm output is set to substantially lift over the next year. We forecast farm output will grow by around one quarter in 2008, a solid rebound after two years of declining rural production. This alone will add nearly 0.5% to GDP growth in the year.

### Inflation is now the primary policy concern

16 years of uninterrupted growth has been good but the legacy is that Australia now has an inflation problem. The headline consumer price index rose by 0.9% in the December quarter and by 3% over the year. The measures of core inflation on which the Reserve Bank most closely focuses rose by an average of 1.05% in the quarter and by 3.6% over the year. The annual rate of core inflation was well above the target band of 2% to 3% and was the

highest since the regime of inflation targeting was introduced by the Reserve Bank in the early 1990s.

### Core inflation is accelerating



A further concern is that inflationary pressures are widespread. Housing-related costs are accelerating, with rising rents (reflecting a shortage of housing stock), rising construction costs, and higher prices for utilities such as electricity, gas and water. High global crude oil prices have fed into higher prices for petrol. Food prices are on the increase, not just due to domestic drought (a situation which is likely to improve over the coming year) but more generally due to rising global demand for grains and sugars. Domestically sourced inflation is running at an annual rate of 4.1%, which is being offset by still subdued tradeable inflation of 1.4%. Upstream producer price pressures remain elevated.

Reserve Bank forecasts released prior to the December quarter inflation data suggested core inflation would remain above 3% in the first half of 2008. Federal Treasurer Wayne Swan has said that Treasury forecasts suggest inflation will be at or above the Reserve Bank target band over the next 18 months. This is not an outlook with which policy makers would be particularly comfortable.

A positive development is that the new Federal Labor Government has placed the management of inflation in the forefront of its economic policy objectives. Its "five-point plan" aims to both cool demand pressures and to ease supply constraints. On the demand side it proposes slightly tighter fiscal policy with a targeted budget surplus of 1.5% of GDP, and measures to encourage private savings. On the supply side it will boost infrastructure spending to ease bottlenecks, raise labour force participation rates through measures to encourage reentry to the workforce, and increase skills training. All of these are positive steps, but are very much medium-term measures. They are unlikely to do much in the short-term to lift the burden of inflation management from the Reserve Bank.

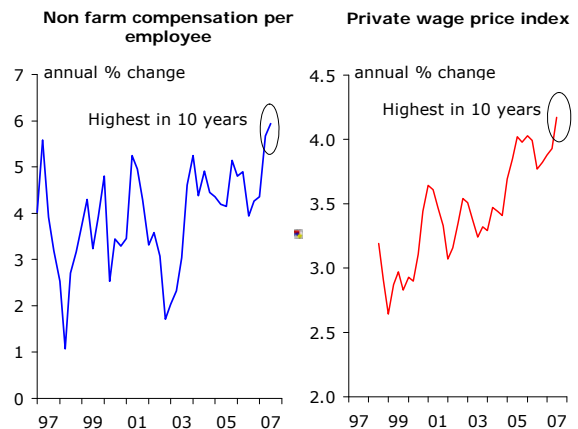
### Wages: its time to start worrying

Employment growth remains strong. Over the year to December total employment increased by 2.5%, with another 261,000 new jobs created. Most

(80%) of these new jobs were full time, and were filled roughly equally by men and women.

Labour force participation rates continue to climb. In recent months the overall participation rate has been just over 65%, the highest in 30 years. The long term rise in participation reflects the increased retention and reentry of women into the labour force. In recent years there has also been a small reversal in the long term decline in participation by men. This increased participation is in part a response to plentiful job opportunities, but also reflects specific measures by governments to expand the supply side of the labour market. These include changes to superannuation arrangements, the welfare to work program, adjustments to the interaction of welfare payments and taxation, improved skills and retraining programs, and increased immigration.

### Strongest wages growth in ten years



Despite these measures, the supply of labour remains tight relative to continued strong demand, and there are emerging signs that wages growth is accelerating. The broadest measure of wages from the national accounts, the non-farm compensation of employees, increased by 5.94% over the year to the September quarter, the fastest growth in 10 years. Other indicators suggest that private sector wages growth has been trending upward for the past decade; over the year to the September quarter the labour price index for the private sector rose by 4.17%, again the strongest growth in 10 years.

Interpretation of recent wages numbers has been complicated by a change in the timing of the minimum wage decisions with the handover to the Fair Pay Commission. In the past, the minimum wage increase took effect in the September quarter, but in 2006 it was implemented on 1 December 2006 (and included in the March quarter 2007 figures) and in 2007 it took effect on 1 October 2007. If anything, this change in timing will have acted to reduce measured wages growth in the September quarter 2007. The December quarter wages data (due on 20 February) will incorporate the minimum wage decision and will provide a clearer guide to underlying trends in wages; we

suspect it will confirm that an acceleration in wages growth is underway.

The new Labor Government has undertaken to unwind some of the labour market deregulation measures of the previous administration. While details are still pending, this will involve the abolition of Australian Workplace Agreements (AWAs) for new labour agreements and a return to an industrial relations system based primarily around collective bargaining. There is still debate about whether existing AWAs will be allowed to run their course.

The impact of these changes on wages growth is unclear at this point in time.

### The RBA is the world's most independent central bank

From time to time there is debate about which of the world's central banks is the most independent of the political infrastructure. The point of the discussion is that there is perceived to be a link between the policy independence of a central bank and its ability to take the hard decisions to maintain low inflation. The nature of the relationship between the government and the central bank differs between countries and there is no universal acceptance of which is the "optimal" structural arrangement. Perhaps the best guide is to look at the central bank's actions. And on this basis the Reserve Bank of Australia can lay claim to being the world's most independent central bank. It has demonstrated in the clearest way possible that its policy actions are not influenced by the political cycle or the wishes of the government of the day, by raising interest rates not only in the lead up to an election – in August – but also by raising rates again during the announced election campaign – in November. This show of independence is itself an important aspect of the Reserve Bank's armoury of inflation fighting tools, because it demonstrates the Bank's commitment to fighting inflation come what may, and this commitment in turn helps to anchor inflationary expectations and to keep inflation low.

The Bank has continued to raise interest rates despite the global financial turmoil and slowing global economic growth because it judges that the primary risk to Australian prosperity is a persistently elevated rate of inflation.

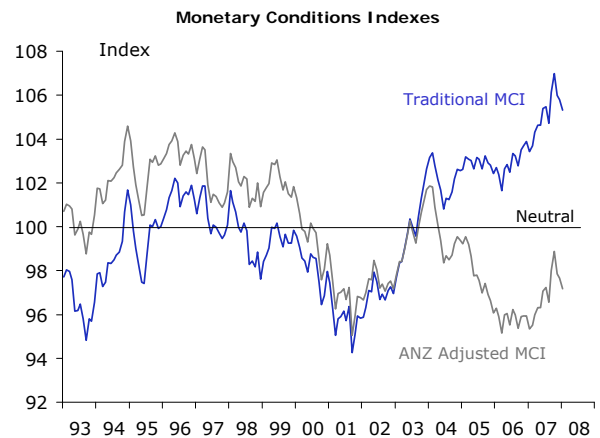
### Policy is not that tight

The Reserve Bank has been raising interest rates for close to six years. The cash rate is now 6.75%, the highest level in over 11 years. The Australian dollar has been rising since 2001. In early November it reached close to US\$0.94, the highest level in 23 years, although subsequently it has eased back to the mid US\$0.80s. A traditional reading of these parameters suggests that monetary conditions are now well on the restrictive side of neutral. And yet the Reserve Bank's own forecasts suggests inflation will run above the target band for the next year. This presents something of a conundrum; why is

inflation uncomfortably high if monetary conditions are so tight?

The explanation is that domestic spending power has been boosted by the rise in the terms of trade to the highest in over 50 years. This is offsetting the contractionary impact of higher interest rates and the higher A\$ such that the overall spending environment is much looser than it seems.

### Monetary conditions remain on the loose side of neutral



Source: Economics@ANZ

Our ANZ Adjusted Monetary Conditions Index provides a guide to overall spending conditions. It shows that overall conditions have been on the stimulatory side of neutral for most of this decade. Conditions have tightened over the past year in response to rising interest rates and the stronger A\$, but are still not restrictive. Our measure incorporates market interest rates rather than the Reserve Bank cash rate, so it incorporates the effect of the increases in market interest rates arising from the global repricing of credit. It includes an estimate for January based on mid-month pricing. The bottom line is that the overall spending environment is still not particularly tight, suggesting there are still upside risks to interest rates in the short term.

Having said that, these are unusually uncertain times. The clear case for further interest rate increases on domestic grounds needs to be balanced against the deteriorating global environment and elevated financial market volatility. The global factors are relevant only to the extent that they influence the medium term inflationary outlook for Australia. And while there will inevitably be some moderation of medium term inflationary pressures from the global ructions we have seen to date, we do not believe it will be sufficient to offset the need for further domestic policy tightening. We remain of the view that the Reserve Bank will raise the cash rate by another 25 bp to 7.00% at the February meeting. Beyond that it will remain on a tightening bias, with policy action dependent on the domestic and offshore data flow.

## New Zealand Outlook

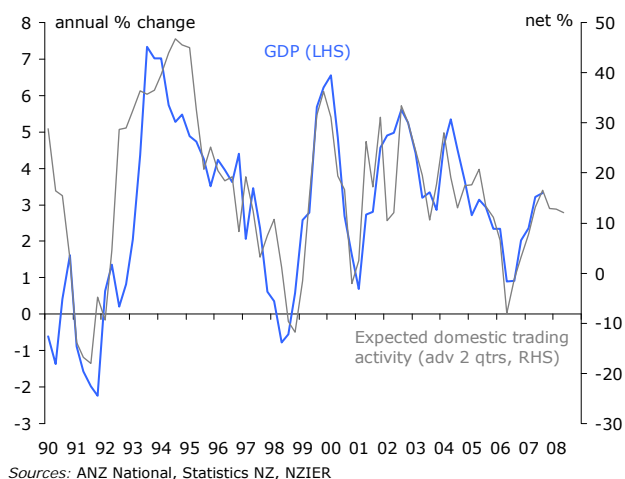
*Khoon Goh, Senior Economist, New Zealand*

### GDP growth moderated over the second half of 2007...

Economic activity over 2007 in NZ can be characterised as a performance of two halves. The first half saw growth recording a scorching pace at an annualised rate of 4%, driven by strong domestic demand. However, growth over the second half took a step down, expanding at an annualised rate of around 2% by our estimates. Growth would have been more subdued if it were not for the Tui oilfield (which sits off the Taranaki coast and began production in July 2007) adding 0.2ppt to growth in the September 2007 quarter and an estimated 0.1ppt to December quarter growth.

There are clear signs that domestic demand has waned in the last two quarters, and indications are that it will remain subdued in the near term. The four interest rate hikes by the RBNZ last year are being felt. Retail sales have effectively flat-lined since March 2007 and are weaker once price effects are removed. The housing market has well and truly turned, with house sales off over 30% since the start of 2007. House prices are also starting to come under downward pressure. Sales of higher value houses (in the >\$1m bracket), which had held up well for most of last year, have also started to post declines.

#### GDP vs NZIER Quarterly Survey of Business Opinion



Yet, businesses remain reasonably confident about their own prospects, despite the moderation in growth and the tightest financial conditions since 1996. Amidst the uncertain global backdrop, there are certainly some positive factors to be cheerful about. The forecast dairy payout for the current 2007-08 season has been revised higher from \$6.40 to \$6.90/kg, effectively delivering an extra \$600mn or 0.4% of GDP into dairy farmers' pockets. In addition, there is the prospect of at least \$1.5bn worth of tax cuts (0.9% of GDP) to be announced at this year's Budget, not to mention the strong

likelihood of other spending promises to come as the election year progresses.

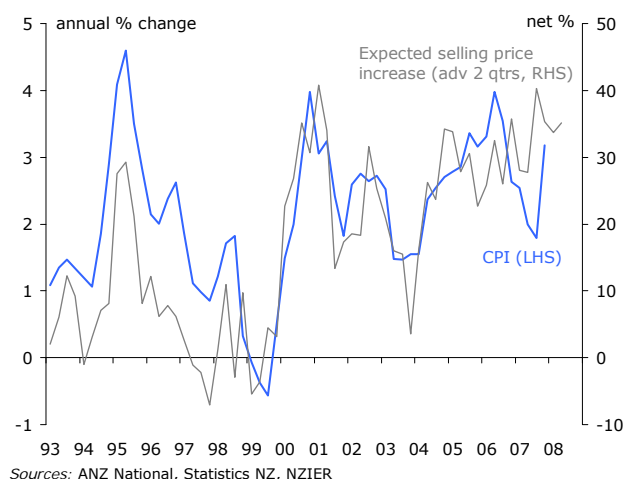
### ... but resource pressures continue to intensify

Despite the slower pace of growth in the second half of last year and further moderation expected over the first half of this year, resource pressures in the economy continue to intensify. The unemployment rate remains at a generational low of 3.5% and the latest reading on capacity utilisation showed a surprising jump higher. Businesses are reporting increasing difficulty in finding both skilled and unskilled labour and are indicating a desire to take on more staff, a sign that upward pressure on wage growth will be maintained.

The fact that resource pressures remain stretched despite an easing in growth points to an economy that is supply constrained. In this environment, inflation pressures will continue to percolate even if growth were to slow further. Less willingness by firms to invest in physical plant and machinery does not bode well for future productivity growth and easing capacity constraints.

Headline inflation rose to 3.2% at the end of last year, exceeding the RBNZ's 1%-3% target band. While higher food and oil prices accounted for much of the recent increases in the CPI, and there have been some encouraging moves on the non-tradable inflation front with the annual rate easing to 3.5%, other core measures remain high at 3% or above. Recent pricing intentions surveys suggest that inflation is set to remain above the RBNZ's target band for most of this year.

#### CPI vs Pricing Intentions



### Global environment to dominate economic outlook

To date, the volatility in global financial markets has had limited effects on the NZ real economy. The re-pricing of risk has certainly resulted in higher wholesale funding costs for financial intermediaries, which have been passed on to the consumers. In addition, finance company failures over the second half of last year are further symptoms of the global

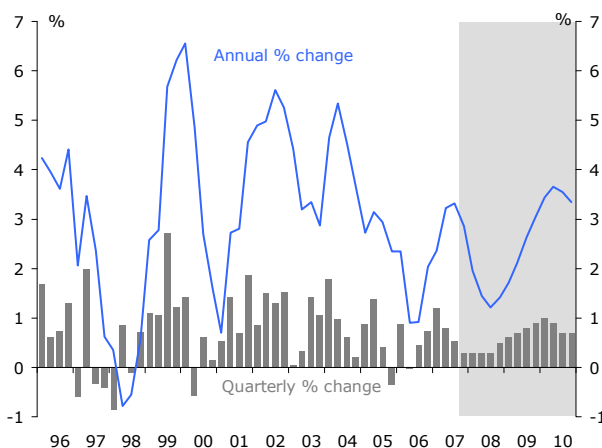
risk aversion/liquidity theme. Credit and swap spreads have widened and the NZ equity market has been sold off, but the NZ economy looks like it has merely shifted from a gallop to a canter. Government spending, elevated prices for NZ's major commodity exports and still strong growth out of Asia are certainly helping to support NZ growth prospects. But just as an environment of cheap and abundant credit helped stimulate growth over the past few years in the form of the credit accelerator, the reverse will also hold true in the form of a credit decelerator in the coming 12 to 18 months.

The end of NZ's economic cycle typically coincides with an external "event" (global recession in the early 1990s, Asian financial crisis and droughts in 1997/98). Current global developments certainly qualify as an "event". With domestic demand already slowing as the lags from last year's monetary policy tightening filter through, the external sector, already facing headwinds in the form of a high currency, will come under increasing strain as global growth slows.

### Hard, soft or something in between?

The type of landing the NZ economy goes through will depend on how Asian growth and commodity prices fare. Our central forecasts portray a halfway house between a hard landing and a soft one, with growth slowing from 3% in 2007 to 1.5% in 2008. Global uncertainty, higher financing costs and increased difficulty in accessing capital due to the global re-pricing of risk will see business investment contract this year. Residential investment will also act as a drag on growth over the first half of this year as the housing market continues to correct.

**New Zealand economic growth forecast**



Sources: ANZ National, Statistics NZ

Private consumption growth will remain subdued as households' disposable income gets squeezed from higher mortgage rate payments and increased costs for core staples such as food. The external sector is not expected to fare much better, with demand likely to ease as global growth slows, particularly for luxury items and services such as tourism. Fiscal policy will certainly continue to lend support to the economy, but it will not be sufficient to hold growth up on its own. Infrastructure spending will continue regardless of the economic cycle, and we have

factored in \$2b worth of tax cuts into our central forecasts, which will help consumption growth over 2009. But most of these tax cuts will be eaten up by cost-of-living pressures.

With the NZ economy already at a vulnerable stage in the economic cycle given the extent of its leverage, the risk profile for growth lies firmly to the downside. Should commodity prices move lower in the face of weaker global growth, the rural sector (and dairy in particular) could find itself moving from being a source of strength in the economy to an area of potential vulnerability.

### Key financial market views

The RBNZ explicitly noted that the policy outlook contains a high level of uncertainty. While policymakers always face a degree of uncertainty, current upside inflationary risks versus global growth gyrations suggest a wide confidence interval should surround the range of possible outcomes. The standard approach to policy in such circumstances is to adopt a "middle of the road approach" which is what the RBNZ appears to be doing at present. However, some potential shocks do have greater consequences than others (even if they are no more or even less likely to occur), and in such instances it is appropriate to take a skewed stance. We only need to look back to the Asian crisis. Such a skewed profile for the global economy and our wariness towards the credit cycle continues to err us towards an easing cycle in late 2008. However, it is important to note that in a sticky inflation environment, the threshold to rate cuts will likely remain high, particularly with fiscal policy certain to become more expansionary than initially signalled. NZ's strong fiscal position suggests that fiscal policy could further come into play as a stabiliser if global events do deteriorate.

The NZ\$ is caught between risk aversion and yield demand. If the global economy can traverse the current environment relatively unscathed, the NZ\$/US\$ could stay within a 0.75-0.80 range for some time. If decoupling fails and commodity prices post substantial declines, the NZ\$/US\$ could find itself below 0.70 within a short space of time. Our NZ\$ forecast is largely flat-lined over the coming six months in lieu of global uncertainty. But we remain bearish on the NZ\$ over the medium term given NZ's poor labour productivity performance and our expectations that NZ growth will slow.

## Financial Market Update

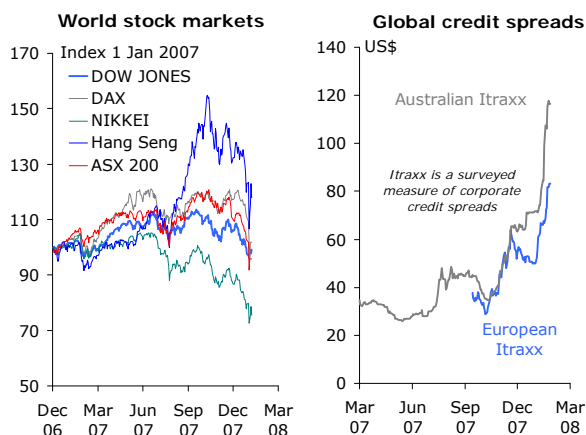
Warren Hogan, Head of Markets Research  
Sally Auld, Senior Interest Rate Strategist  
Katie Dean, Senior Economist, Markets

The debate continues over whether the real economies of Australia and the US are desynchronized. What has become blindingly clear since the start of the year is that links between the Australian and US financial markets have rarely been stronger. Last quarter we concluded a shift in sentiment and expectations for the global economy would be the one factor likely to disrupt the strong performance of local financial markets. Since the start of 2008 a rout in global equity markets has dealt a screaming reminder of how punishing such a turn in investor sentiment can be. The US Federal Reserve's decision to cut the Fed Funds rate by 75bp on January 23, a week ahead of its next scheduled meeting, has provided a welcome circuit-breaker, for now. But it is clear that the events of the last six months have left a swathe of further losses that are yet to be realized or revealed. The worst, it appears, may still be yet to come.

### The US matters after all

Global equity markets have fallen sharply since the start of January as the outlook for the US financial sector, and the broader US economy, has deteriorated. At the epicentre of the problems, the Dow Jones is now trading 13% below its October 2007 peak. In Europe the FTSE and the DAX are down a similar 14% and 16% respectively while Japan's Nikkei has been the worst-performing amongst the G7 markets, dropping an enormous 30% since early October. Investors have proven particularly harsh in emerging markets; from recent cyclical peaks China's Shanghai Composite index has dropped by 27%, the Russian Traded Index (CTRX) by 19% and Brazil's Bovespa index by 11%.

### Financial market conditions have deteriorated



Source: Bloomberg

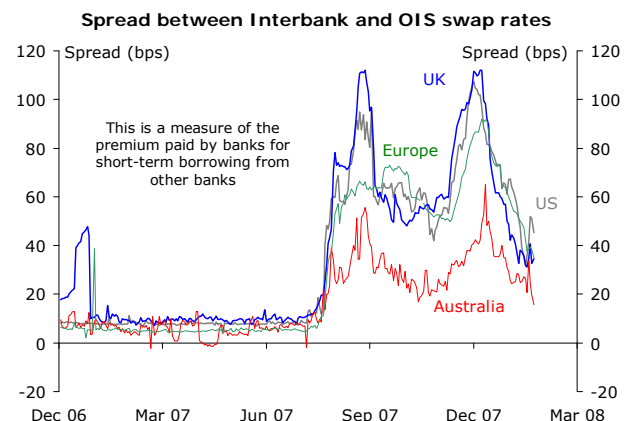
Australia, despite its strong fundamentals, proved unable to escape this tsunami of financial market panic. Local share prices plummeted, suffering their worst losing streak of 12 consecutive daily falls and biggest percentage loss in more than twenty years. After at one stage our market closed 24% down

from its November 2007 high, the biggest fall since the 1990-91 recession. There has since been a relief rally, allowing local stocks to recover from their technical bear market. Nevertheless the ASX 200 does, at the time of writing, remain 14% below its cyclical peak.

The rout on equity markets has, expectedly, partnered a further blow out in global credit spreads. US and European credit spreads have risen to record wides and in Australia corporate debt spreads have hit their widest level in over a decade.

On a more positive note, there has been an improvement in liquidity conditions since the start of the year. Money market costs have moved lower with the spread between interbank and policy rates narrowing sharply from December peaks. This reflects the passing of seasonally high end-of-year funding pressures as well as the success of the Fed's new Term Auction Facility (TAF) which has so far injected more than US\$100 billion through discount credit windows across the US and Europe since December<sup>3</sup>. Nevertheless, interbank spreads, remain high by historical standards.

### Short term funding pressures have, at least, eased



Source: Bloomberg and Economics@ANZ

### The storm is not over

The trigger for the renewed wave of financial market turmoil has been the US banking sector's Q4 reporting season, which revealed further large write-downs in sub-prime-related securities and much worse than expected drops in profits. Around US\$133 billion has now been announced in asset writedowns and credit losses with analysts expecting a further US\$24 billion, to bring the total to US\$157 billion, by the end of this quarterly reporting season. Fed Chairman Bernanke has since stated in his testimony to Congress on 17 January that these

<sup>3</sup> The TAF was introduced in mid-December to provide a temporary adjunct to the Fed's normal money market operations. It aims to broaden access to term funds through a wider range of counter parties and against a wider range of collateral. The TAF incorporates the US, Euro area, UK, Switzerland and Canada in its operations and so also represents an unprecedented degree of co-operation between global central banks.

losses could mount to "several multiples" of US\$100 billion. The associated losses in derivatives markets could be even larger. While the data remains opaque, estimates of losses from credit default swaps caused by a rise in bankruptcies now range from US\$250 billion to US\$1.4 trillion<sup>4</sup>.

The catalyst for the market turmoil is not just uncertainty around the size of these losses, but uncertainty over the extent to which US banks' deleveraging will spread to the US household sector. What is now clear is that US, and hence global, equities will be under pressure until US recession fears are either confirmed or denied. In the meantime, the risk environment will stay elevated, liquidity will be thin and the bears will dominate.

On local shores, a look at the fundamentals implies the recent market downturn may be overdone. Across the ASX 200, price-to-earnings ratios and relative price indices are around traditional 'buy' levels. More importantly (as detailed earlier in this publication), the outlook for the Australian economy and in particular, most Australian corporates, while albeit now less buoyant, is still favourable.

However, regardless of what the fundamentals tell us, a complete reversal in the Australian equity market will only occur when confidence returns to the market. The timing of this is impossible to pick, although investors will unquestionably need to see some stabilization in the US economic outlook and the global equity markets before rushing to 're-risk' their portfolios. A further uncertainty for Australian equities is the Chinese economy. As detailed earlier in this publication, Chinese economic growth is expected to slow notably in the second half of this year. A deterioration in the data print out of China in the shorter-term, while not our baseline scenario, would no doubt send a further scare through Australian markets. While our strong Australian economic forecasts stop us from forecasting a continuation of the current bear market, local equity investors should certainly brace themselves for more volatility, and potentially further losses, in the months ahead.

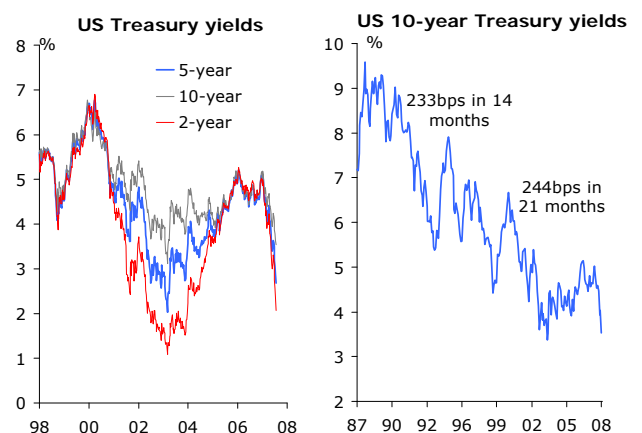
### Australian bonds underperform...for now

The Fed's surprise rate cut has caused a sharp rally and steepening in US treasury yields. Lingered inflation concerns and a hawkish speech by RBA Governor Stevens has seen Australian treasuries continue to underperform the US market and spreads have widened further. Having rallied on weaker equity markets, the strong December quarter inflation outcome has seen local bonds sell off, especially at the short-end, with the market now ascribing around a 46% chance of a rate rise in

early February. With Australian inflation now uncomfortably high, we think there is scope for a further sell-off in front-end bonds in coming months.

US 10-year Treasury yields have continued to decline in the last couple of months, thanks to a deteriorating economic outlook in the US and further easings from the US Federal Reserve. The US 10-year yield is now 3.6%, down over 100bps since October. Given the scope of recent monetary easing from the US Federal Reserve, US 2-year Treasury yields have fallen even further. The 2-year yield is now just 2.2%, having fallen 200bps since October last year. The US 2s10s yield curve is now 140bps, its steepest level since mid 2004. Yields are now close to the cyclical lows of 2003.

### US Treasury yields are close to cyclical lows



Source: Bloomberg

It is interesting to look at the performance of the US 10-year yield in a historical context. Longer term, US 10-year yields are behaving in line with a bullish channel in place for over 20 years. The chart suggests scope for a further decline in US yields over the course of this year. The chart below illustrates that the 10-year yield does not travel from the top of the channel to the bottom of the channel without some sort of mid-rally sell-off. But the first leg of the rally is usually around 230-240bps in magnitude. In 1994-1996, 10-year yields fell 233bps in just over a year. In 2000-2003, 10-year yields fell 244bps, but took almost 2 years. A decline of a similar magnitude would take 10-year yields to an initial trough of 2.65% or thereabouts by the end of 2008.

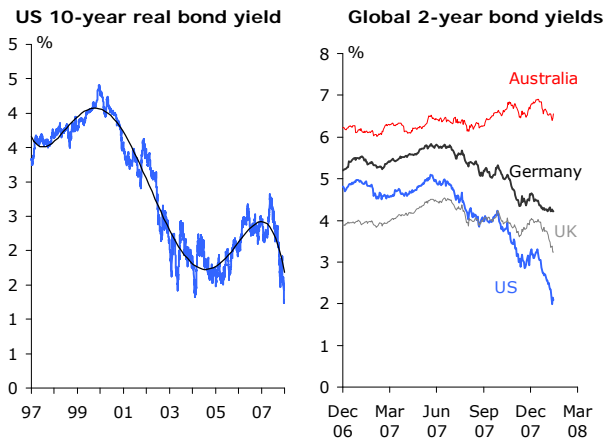
One of the more interesting features of the US Treasury market in recent months has been the decline in real long term yields. Just recently, the US 10-year real Treasury yield (as measured by the yield on an inflation protected Treasury bond) reached a new cyclical low of 1.23%. Theoretically, the real 10-year yield gives us some indication of where real economic growth is expected to average over the next 10-years. The current yield level does not suggest that financial markets are taking a particularly optimistic view of US growth prospects.

Yields in the UK, Germany and Japan have also declined in recent months, as question marks over

<sup>4</sup> Bill Gross of Pacific Management Investment Co. has projected that the losses from credit default swaps (CDSs) could be US\$250 billion or more. Andrea Cicione of BNP Paribas suggests that losses this year in the CDS market could reach notional amounts of as much as US\$1.4 trillion, and counterparties could fail to pay up to US\$150 billion in contracts

the growth prospects of these economies have emerged. The risk lies towards further decline in yields as growth forecasts are cut and central banks act to lower policy rates. Yield curves in the UK, Germany and Japan will continue to steepen in this environment as front end yields outperform.

### Bond markets are pessimistic on the US outlook, while Australia stands alone



Source: Bloomberg

Australian yields have provided a stark contrast to global bond market dynamics in recent months, with yield differentials continuing to widen. For example, the difference between Australian and US 2-year yields is now 446bps, its highest level in around 18 years. Strong growth, rising inflation expectations and the prospect of further monetary tightening from the RBA have been the main drivers behind the under-performance of the Australian bond market in the last little while.

The broader strategic outlook for Australian bond yields is likely to be highly dependent upon RBA action in 2008. An aggressive RBA in the first half of 2008 should shore up inflation expectations and allow the Australian bond market to rally in 2008. After underperforming in the second half of 2007, the Australian government bond market could be one of the best performers in 2008 if the RBA is true to its inflation targeting mandate.

### The Australian dollar holds its ground

The Australian dollar has performed strongly through the recent global financial market turmoil, holding within a range of \$US0.85 to \$US0.90. Typically, a surge in financial risk aversion combined with large declines in equity markets would be the perfect recipe for a large decline in the \$A. Commodity prices have also been falling, adding to the potential downside for the currency. True, trading has been volatile and swings have been relatively large - up to two cents in a day - but the ability of the A\$ to strongly resist a fall towards its August-2007 low of US\$0.77 has been impressive.

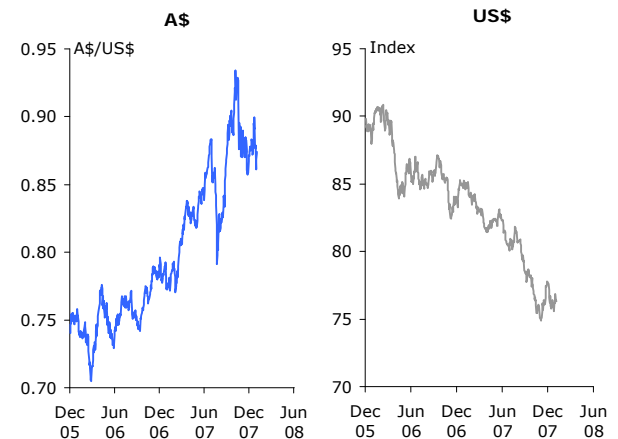
At this stage the key factor appears to be yield. High local interest rates and bond yields are attracting capital flows into the \$A. As mentioned earlier, the spread between Australian and US 2-year bond rates is now at 18-year highs. Despite the

heightened risk environment, this is clearly providing too much temptation for some! Continued upward pressure in bulk commodity prices, with thermal coal spot prices shrugging off global woes to hit new highs in recent weeks, may also be providing the A\$ with some support.

Going forward the \$A will continue to be impacted by divergent forces, caught between further negative themes on the global economy and the strong support offered by local yields. The impact of commodity prices will likely prove modest, and even neutral, as expected strong rises in negotiated bulk contract prices are offset by vulnerable base metal prices. This tug-of-war is expected to keep the A\$/US\$ in recent ranges for the next few months.

Ultimately the \$A is highly correlated with global growth. Global banking distress, rising credit spreads and falling equity markets all point to lower growth ahead and indeed our forecasts envision PPP global growth slowing from 5.2% in 2007 to around 4.6% this year and next. This should filter through to a weaker \$A by the end of 2008 and into 2009. Apart from another financial market 'event', the major risk to the AUD is posed by the timing and depth of any slowdown in the Chinese economy.

### The A\$ and the US\$ are holding remarkably well



Source: Bloomberg

The US\$ is also likely to prove a fairly neutral influence on the A\$. The US\$ has performed remarkably well in recent months, holding its ground despite US economic woes and further aggressive cuts in US interest rates. Is this a sign that the mighty dollar is readying itself for a rebound? History shows that the US\$ only rallies when investors buy US\$ assets, such as treasuries or equities. We see little evidence that this will occur in the coming period; not when US yields remain low, growth sluggish and prospects for 'alternative' assets, including EUR, commodities or emerging market assets, remain relatively more attractive. Our core forecast therefore remains for the US\$ to remain relatively weak over 2008, albeit with some appreciation over the second half of this year. Given the clouded US economic outlook, we see more of a risk of the US\$ extending its decline than embarking on a recovery, in the months ahead.

## Feature Article: update on Australian climate change policy

Julie Toth, Senior Economist, Industry  
Riki Polygenis, Economist, Australia

*Australia's federal government is taking a more proactive stance on climate change than its predecessor, starting with the ratification of the UN's Kyoto Protocol. What will this mean in practice?*

### Rudd Government policy commitments

The Rudd Government, elected in November 2007, is set to take a more active policy stance on climate change than its predecessor. This was demonstrated immediately after the election by Prime Minister Rudd's attendance at the UN's conference on climate change in Bali and ratification of the Kyoto Protocol. The commitments this entails are discussed below.

Prior to the election, the ALP advocated a long-term target of reducing Australia's greenhouse gas (GHG) emissions to 60% of 2000 levels by 2050. This is the minimum reduction advocated by the UN globally, in order to avoid what it regards as 'dangerous' levels of climate change. In order to meet this long-term goal, the Government will set interim emissions targets for Australia, once it has received advice from Prof. Garnaut (June 2008).

Like its predecessor, the Rudd Government is focusing the first stages of its climate change policy on Australia's electricity generation industry, which emits just over half of our GHGs (as measured in CO<sub>2</sub> equivalents). Australian electricity generation is problematic for GHGs due to our heavy reliance on coal (brown in Victoria and black in other states). 75% of electricity generated in 2005-06 came from coal. ABARE expects this share to decline to 67% by 2030, as renewables and gas power grow.<sup>5</sup>

In relation to electricity, the Government made the following pre-election commitments to action:

- Australia currently has a national Mandatory Renewable Energy Target (MRET) of 2% for electricity generation from renewable sources (solar, wind, hydro and geothermal) by 2010, plus various state-level renewable energy targets. The ALP pledged to increase the MRET to 20% by 2020. The Government will also need to minimize duplication with the states' renewable energy targets.
- For the electricity industry, the 'Clean Energy Plan' will offer four funding streams: (1) \$500mn for 'renewable energy', (2) \$240mn for 'clean business', (3) \$150mn for 'energy innovation' and (4) \$500mn for 'clean coal'. Renewable energy funding will include \$15mn for a 'Clean Energy Export Strategy'; up to \$20mn for a 'Clean Energy Enterprise Connect

Centre'; \$50mn for an 'Australian Solar Institute', and \$50mn for the development of geothermal power.

- For households, funding pledges included rebates of up to \$8,000 for domestic solar power systems, \$1,000 for solar hot water systems, \$500 for landlords to install insulation and \$10,000 in low-interest 'Green loans' for solar, water and energy savings measures.
- An additional \$489mn to help schools install solar power systems.

To oversee these policies, the Government replaced the Australian Greenhouse Office with a new Department of Climate Change. Among other duties, this Department will administer the *National Greenhouse and Energy Reporting Act 2007* (one of the last Acts passed by the Howard Government). This Act will require companies with large emissions to report their annual GHG emissions from 2008-09, as a next step towards establishing an Emissions Trading Scheme (ETS) (see below). Regulations setting out the Reporting Act's technical requirements are yet to be issued, including how it will replace state government GHG reporting.<sup>6</sup>

Looking at what the Rudd Government will *not* be doing, the key commitment of relevance to climate change policy is that nuclear power will not be introduced as a low GHG-emissions alternative to coal, as was being considered by the Howard Government. Further, Australian uranium will not be sold to India, or to any other country that is not signatory to the relevant international conventions.

Australia's next two biggest CO<sub>2</sub>-emitting industries (after electricity generation), agriculture (17% of emissions) and transport (13%) have, to date, received far less attention. There are no new policy commitments for example, relating to biofuels, land clearing or GHG-offsetting forestry, although \$500mn has been promised to Australian car manufacturers through a 'green car innovation fund'. These policy gaps are more likely to be addressed in the future, since Australia is now in the global policy loop (via Kyoto) and will need to keep pace with global GHG abatement developments.

### Kyoto Protocol – what have we signed up to?

The 'Kyoto Protocol' is an attachment to the United Nations Framework Convention of Climate Change of 1992. It was first agreed in 1997, but did not come into practical effect until 2005 (see table below). Australia was a signatory to the Convention, but did not sign up to the Protocol until December 2007.

So what has changed now that Australia is a member of the Kyoto club? The main difference between the Convention and the Protocol is that the Convention is a statement of intention, while the

<sup>5</sup> ABARE 2007, *Australian Energy, National and State Projections to 2029-30*, p. 30.

<sup>6</sup> Parliament of Australia (2007), *Key Issues for the 42nd Parliament 2007*; Department of Climate Change 2008, *Greenhouse and Energy Reporting*.

Protocol is a statement of commitment — that is, it requires action, and not just mere words.

For industrialised countries, the first stage of Kyoto (2005 to 2012) requires total GHG emissions to be cut by 5% from 1990 levels, by 2012, via a number of approved methods. For developing countries, less action is required in Stage 1, due to the principle of “common but differentiated responsibilities”.

Australia’s commitment to action under Stage 1 of Kyoto formally commences in March 2008. Although the aim for developed nations is to collectively reduce GHG emissions by 5% from 1990 levels, Australia’s individual target is to limit annual average GHG emissions to a maximum of *8% higher than 1990 levels*, for the years 2008 to 2012. This target was set because Australia successfully argued that we are a special case, due to our heavy reliance on agriculture, mining and coal-fired electricity generation and our typically longer travel distances.

According to Government projections, “we are on track to meet the target” for Stage 1 of Kyoto. Indeed, success is virtually assured, given that Australia’s net GHG emissions in 2005 were only 2.2% higher than 1990 levels. This surprisingly low growth rate was entirely due to reduced emissions from ‘land use, land use change and forestry’ (down 74% from 1990 to 2005), which counteracted the effect of substantial increases in emissions from stationary energy generation (up 43%), transport (up 30%) and industry (up 16%). Residential emissions were up 29%.<sup>7</sup> On these numbers, Kyoto appears to allow Australia a small *increase* in emissions from our 2005 levels, rather than requiring cuts, as it has in Europe. Further, if real GHG emissions cuts are to be made in Australia, then these data indicate that the policy focus on electricity generation and households is justified.

The details of Kyoto Protocol climate change commitments after 2012 (Stage 2) are the subject of a two year negotiation round that commenced with a conference in Bali in December 2007. Bali established the ‘roadmap’ for the next two years of negotiations, which will focus on four areas of action: climate change mitigation, adaptation to climate change, technology transfers to developing countries and financing. Deforestation will be a priority area for further study, since it is estimated to cause 20% of GHG emissions globally.<sup>8</sup>

The verdict of most Kyoto observers is that Australia got off lightly in Stage 1, but will be expected to make real GHG cuts in Stage 2. The new focus on deforestation could work to Australia’s favour, given that land use change and forestry have been our only sources of GHG reductions in recent years.

<sup>7</sup> ALP Media Statement, *Ratifying the Kyoto Protocol*, 3 Dec 2007; Australian Greenhouse Office, *National Greenhouse Gas Inventory 2005*.

<sup>8</sup> [www.un.org/climatechange/](http://www.un.org/climatechange/)

## UN Kyoto Protocol — key dates and commitments

| Date         | Event / commitment  |
|--------------|---|
| 1992         | United Nations Framework Convention of Climate Change founded at the Rio Earth Summit with 192 parties. Stated aim is to ‘stabilise greenhouse gas concentrations in the atmosphere’ at a non-dangerous level.<br><i>Australia ratifies Convention.</i> |
| 1997         | Kyoto Protocol to the Convention agreed, which <i>commits</i> parties to reduce GHGs. Not enough parties to enable commencement.<br><i>Australia does not ratify Kyoto Protocol.</i>  |
| 2004         | Russia ratifies Kyoto, triggering start of Kyoto’s Stage 1 of GHG reductions.   |
| 2005 to 2012 | Stage 1 of Kyoto Protocol. All EU members plus 36 other industrialised countries agree to reduce their average GHG emissions by 5% from their 1990 levels, by 2012. Non-industrialised parties have lesser targets.                                     |
| 2007         | 176 parties now signed to Kyoto. Bali ‘Roadmap’ conference begins 2 years of negotiations to agree to stage 2 reductions.<br><i>Australia ratifies Kyoto Protocol.</i>  |
| 2012         | Kyoto stage 1 ends. Stage 2 commences.  |

Source: [www.un.org/climatechange/](http://www.un.org/climatechange/)

## Emissions trading scheme (ETS)

The showpiece of the Government’s policy response to climate change is a national ETS. The process of developing and implementing this scheme is already underway but will take several years more. The National Emissions Trading Taskforce has been consulting on the issue for several years, while Prime Minister Howard’s ‘Task Group on Emissions Trading’ reported on an ETS in June 2007. The Rudd Government is now awaiting a further report from Prof. Garnaut, due in June 2008.

The Government has pledged that it “is committed to introducing a ‘cap and trade’ emissions trading scheme by 2010”, with full trading commencing by 2012, to coincide with Stage 2 of the Kyoto Protocol. While details are yet to be developed and finalised, it is likely that the scheme will be similar to that recommended by the Task Group in 2007:

- annual caps on tradeable emissions rising in the short-term, building to a long-term annual cap;
- emissions permits initially allocated free of charge to existing businesses, with additional permits to be auctioned;
- coverage to include all companies with large, direct emissions (e.g. 125kt of CO<sub>2</sub> p.a.) and possibly fuel suppliers (as a proxy for transport emissions), but excluding agriculture and land use for practical reasons. This would cover an estimated 70-75% of total national emissions.<sup>9</sup>

<sup>9</sup> See Economics@ANZ, *The road to an emissions trading system*, ANZ Industry Report, June 2007.

The Government has outlined five criteria for introducing an ETS. It must be: (1) a cap and trade scheme that is internationally consistent; (2) effective in reducing emissions; (3) economically responsible; (4) fair; and (5) enable action now.

#### Australia's ETS – key dates and commitments

| Date       | Event / commitment  |
|------------|---|
| June 2008  | Garnaut report due to Government, start drafting legislation and targets  |
| July 2008  | Emissions reporting to commence   |
| 2009       | Establish national ETS regulatory body                                    |
| 2010       | Short-term emissions caps finalised, first ETS permits issued and/or sold |
| 2011 or 12 | National ETS trading to commence  |

Sources: Parliament of Australia 2007, *Key Issues for the 42nd Parliament*; National Emissions Trading Taskforce.

#### Potential costs of an ETS

Regulatory costs for businesses will commence when compulsory emissions reporting commences in July 2008. In the first year, corporations producing over 125kt of CO<sub>2</sub> (or consuming over 500TJ of energy) must report their emissions, dropping to 50kt of CO<sub>2</sub> (and 200TJ of energy) by 2011. An estimated 700 large companies will need to report in the first year. The resulting data will be published each year and will be used to determine initial credits for the ETS.

The full costs of the ETS won't be felt until actual trading starts in 2012. It is expected that the cost will fall primarily on the energy industry, and more particularly, on electricity generation. If fuel suppliers are included (as was recommended by the Task Group in 2007), then their ETS costs and inflationary pass-through could be substantial also.

Assuming that initial credits will be allocated free of charge, the cost of the ETS for participating businesses will depend primarily on the size of the cap and the price at which emissions credits trade. While we will need to wait for Prof. Garnaut's report for a more comprehensive analysis of the economic impact of emissions trading, modelling completed on behalf of the National Emissions Trading Taskforce in mid 2006 provided an initial assessment of the potential impact of ETS on electricity prices.<sup>10</sup> This modelling compared electricity prices under three ETS scenarios (1, 1a and 2) with a base case scenario in which GHG emissions were projected to grow at 1.7% per annum, from around 193Mt CO<sub>2</sub>e in 2010 to around 265 Mt CO<sub>2</sub>e in 2030. The three modeling scenarios were:

- Scenario 1: Electricity generation emissions capped at 176 Mt in 2030 (approximately equal to emissions from this sector in 2000).
- Scenario 1a: Same cap as above, but with additional complementary measures (e.g. energy efficiency) assumed.
- Scenario 2: Electricity generation emissions capped at 150 Mt in 2030 (approximately equal to emissions from this sector in 1997).

In these scenarios, the impact of an ETS on both wholesale and retail electricity prices varied across states and territories. For instance, the percentage increase was estimated to be greater in regions that have low wholesale electricity prices in the base case scenario than for regions with high prices and plenty of abatement opportunities at low cost. It also depended on the different rates of growth in electricity demand (highest in Queensland) and different levels of dependence on coal fired generation to meet growth (higher Queensland and NSW but lower in Victoria and South Australia due to greater access to gas as a source of power). Cost increases were also projected to be high in WA and NT (which are not connected to the National Electricity Market), notwithstanding large gas supplies, due to limited abatement opportunities and the reduced prospect of a CCS power plant (Carbon Capture and Storage) entering the market.

The conclusions of the modelling were that *wholesale* electricity prices would rise by an average of between 12% and 22% over the business-as-usual scenario for the period 2010-2030, with the price increases greater in the second decade. These results exclude Western Australia and the Northern Territory, for which price increases were expected to be much larger – between 27% and 40% in WA and between 20% and 30% in the Northern Territory.

*Retail* electricity prices were forecast to rise by a smaller margin than wholesale prices. For residential customers, the average price increase was estimated at between 8% and 11% in the eastern states, between 14% and 20% in WA and between 12% and 18% in the NT. In dollar terms, the price increases ranged from \$0.70 per week per household in Victoria to \$2.20 per week in the Northern Territory under scenario 1a, and between \$1.20 per week in Victoria to \$3.60 per week in the Northern Territory under scenario 2.

Of course these results don't fully capture the total cost to households of emissions reductions, because electricity price increases paid by businesses are also likely to be passed on to households. Retail price rises are expected to be larger for commercial and industrial customers than for residential customers, with industrials facing the largest increases because their retail prices are most closely related to the wholesale price. For energy intensive customers, the average price increase implied by the modelling ranged from 2% in South Australia to 27% in Western Australia and Queensland for

<sup>10</sup> Modelling undertaken by McLennan Magasanik Associates Pty Ltd for the National Emissions Trading taskforce. See: [http://www.emissionstrading.net.au/key\\_documents](http://www.emissionstrading.net.au/key_documents). The modelling methodology used has received criticism from various sources, but it is nevertheless useful as a rough guide to the orders of magnitude of costs involved.

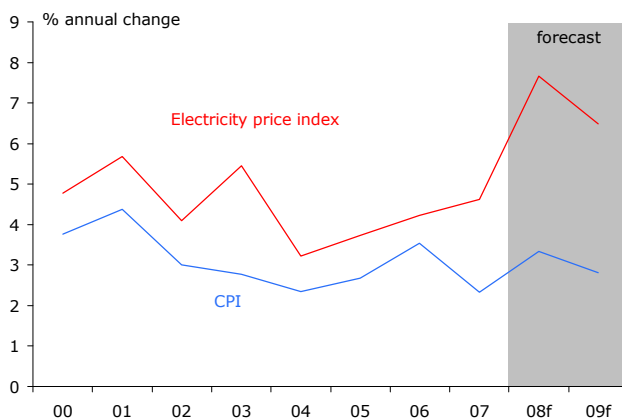
Scenario 1a, and from 6% in South Australia to 37% in Western Australia for Scenario 2.

There is a possibility that the entire increase in electricity prices to industrial customers will not necessarily be passed on fully to end customers because many of these industries are trade exposed. Under most Australian ETS proposals, trade exposed industries with high electricity costs will be compensated either directly or through the allocation of free permits. They include: aluminium and alumina; iron and steel; cement and cement products; non metallic mineral products; and non ferrous mining. These customers account for around 31% of total electricity demand. Related modeling based on the same assumptions show that the Australian economy would continue to grow strongly, despite these electricity price increases.

### Potential impact on inflation

It is interesting to note that for a variety of reasons, retail electricity prices are already rising at a faster rate than the overall rate of consumer price inflation. This price growth is likely to accelerate markedly in 2008, with limited water availability due to the drought in recent years leading to increases in regulated electricity prices. Several price increases have already been announced. Retail electricity prices will rise by 6.8% in South Australia from 1 January 2008 and in Victoria, electricity price rises of up to 17% have been announced.<sup>11</sup>

### Electricity price rises are already well above CPI



Sources: Australian Bureau of Statistics and Economics@ANZ

Electricity price increases due to an ETS from 2012 will be in addition to price rises in the base case, which are presumed to grow by at least the rate of total inflation (CPI). Utilities are currently 3.3% of the CPI basket, of which electricity is 1.7%, gas is 0.7% and water/sewerage is 0.9%. The share of electricity in the CPI basket is rising, as electricity prices are rising more quickly than the overall CPI. If electricity were to rise to 2% of the CPI basket for example, then a 10% increase in the retail price of electricity (due to the ETS or other factors), would directly increase the CPI by 0.2%.

As noted above however, second-round price effects due to businesses passing on their higher electricity costs to their customers could increase the CPI by a higher – but unknown – margin again. If the ETS is also applied to transport fuel, then the resulting fuel price rises will flow through to consumers directly and through all transport providers in a similar manner to electricity. Automotive fuel currently makes up 4.3% of the CPI basket, so if fuel is included in the ETS, an increase in fuel prices as a result would potentially have a greater direct effect on the CPI and on households than would electricity.

These price effects are deliberate. The ETS is a price mechanism, aimed at businesses and consumers so as to induce a change in consumption behaviour. Without this price effect, the ETS would prove ineffective in reducing total emissions, as opposed to just shifting them from one emitter to another.

### Opportunities for business and industry

Clearly most of the costs of an ETS are attached to the energy sector. But so too are many of the new business opportunities arising in the post-carbon era.

Already, subsidies are being provided for domestic solar energy hot water services and power systems. And the MRET, although currently low, provides encouragement to renewable energy generators. Its promotion from 2% now to 20% by 2020 will provide a big boost to this sector, as will the commencement of the ETS in 2012. Renewable energy technologies are slowly becoming more cost effective relative to traditional coal and gas fired power generation. The ETS will increase the cost of carbon-based power, reducing the cost gap between them even further. Growing consumer awareness is also boosting renewable energies, helping to reduce their marginal cost and bring them into the mainstream.

Outside the electricity generation industry, growth opportunities will arise from climate change (and from policy responses to it) in industries as diverse as insurance, pharmaceuticals, construction, metals manufacturing, transport, agriculture, forestry, land management and financial services. For individual businesses, first mover opportunities will be crucial in each market. Of equal importance will be businesses' ability to take a global perspective, so as to take advantage of the Kyoto-driven global GHG abatement processes which will become more entrenched (and more lucrative) after 2012.

### Other publications by Economics@ANZ related to this topic are available on our website:

'Food stress', *ANZ Economic Outlook*, Dec 2007,

*The road to an emissions trading system*, ANZ Industry Report, Jun 2007,

'Carbon trading', *ANZ Economic Outlook*, Mar 2007,

'Sources of carbon', *ANZ Australian Economics Weekly*, 23 Mar 2007,

*Automotive biofuels*, ANZ Industry Brief, Dec 2005.

<sup>11</sup> See: [www.abc.net.au/news/stories/2007/11/30/2105913.htm](http://www.abc.net.au/news/stories/2007/11/30/2105913.htm) and [www.abc.net.au/news/stories/2007/11/30/2106440.htm](http://www.abc.net.au/news/stories/2007/11/30/2106440.htm).

## Australian and New Zealand Economic Forecasts

|                                   | Annual (period average)% ch. |         |         |         | Quarter% ch. |        |        |           |
|-----------------------------------|------------------------------|---------|---------|---------|--------------|--------|--------|-----------|
|                                   | 2006                         | 2007(f) | 2008(f) | 2009(f) | Mar-07       | Jun-07 | Sep-07 | Dec-07(f) |
| <b>Australia</b>                  |                              |         |         |         |              |        |        |           |
| GDP                               | 2.8                          | 3.9     | 3.6     | 3.3     | 1.3          | 0.7    | 1.0    | 1.0       |
| Household consumption             | 2.8                          | 4.0     | 3.6     | 3.2     | 1.4          | 0.4    | 1.2    | 0.8       |
| Dwelling investment               | -2.6                         | 4.5     | 2.4     | 6.3     | 1.2          | -1.5   | 1.4    | 2.0       |
| Business investment               | 8.7                          | 11.9    | 4.8     | 3.0     | 7.4          | 2.9    | 0.5    | 1.1       |
| Public demand                     | 4.0                          | 3.1     | 5.2     | 4.1     | -1.2         | 3.2    | 0.2    | 1.3       |
| <i>Domestic final demand</i>      | 3.6                          | 5.0     | 4.0     | 3.6     | 1.8          | 1.4    | 0.8    | 1.0       |
| Net Exports (cont. to growth)     | -0.9                         | -1.4    | -0.5    | -0.1    | -0.4         | -0.2   | -0.1   | -0.1      |
| CPI                               | 3.5                          | 2.3     | 3.4     | 2.9     | 0.1          | 1.2    | 0.7    | 0.9       |
| Wages                             | 4.0                          | 4.1     | 4.3     | 4.2     | 1.0          | 1.1    | 1.0    | 1.1       |
| Employment                        | 2.1                          | 2.8     | 2.6     | 1.9     | 0.7          | 0.7    | 0.6    | 0.6       |
| Unemployment rate (%)             | 4.8                          | 4.4     | 4.1     | 4.0     | 4.5          | 4.3    | 4.3    | 4.4       |
| Current account balance (A\$ bn)  | -55.0                        | -63.0   | -67.0   | -68.8   | -15.3        | -15.6  | -15.6  | -16.1     |
| (% of GDP)                        | -5.5                         | -5.8    | -5.7    | -5.5    | -5.8         | -5.8   | -5.7   | -5.8      |
| <b>New Zealand</b>                |                              |         |         |         |              |        |        |           |
| GDP                               | 1.6                          | 3.0     | 1.5     | 2.4     | 1.2          | 0.8    | 0.5    | 0.3       |
| CPI                               | 2.6                          | 3.2     | 3.0     | 2.7     | 0.5          | 1.0    | 0.5    | 1.2       |
| Wages                             | 5.0                          | 3.9     | 5.2     | 4.4     | 1.0          | 0.8    | 1.3    | 0.7       |
| Employment                        | 2.1                          | 1.7     | 1.2     | 0.7     | 1.2          | 0.6    | -0.3   | 0.5       |
| Unemployment rate (%)             | 3.7                          | 3.6     | 4.0     | 4.3     | 3.7          | 3.6    | 3.5    | 3.6       |
| Current account balance (NZ\$ bn) | -14.0                        | -13.9   | -13.8   | -14.0   | -2.2         | -3.0   | -5.2   | -3.5      |
| (% of GDP)                        | -8.6                         | -8.0    | -7.6    | -7.4    | -8.2         | -8.1   | -8.3   | -8.0      |

## Financial Market Forecasts

|                                | Annual (period end) |         |         |         | Quarter (period end) |        |        |        |
|--------------------------------|---------------------|---------|---------|---------|----------------------|--------|--------|--------|
|                                | 2006                | 2007(e) | 2008(f) | 2009(f) | Mar-07               | Jun-07 | Sep-07 | Dec-07 |
| <b>Interest rates (% p.a.)</b> |                     |         |         |         |                      |        |        |        |
| <i>Australia</i>               |                     |         |         |         |                      |        |        |        |
| 90 day bank bills              | 6.44                | 7.24    | 7.45    | 7.40    | 6.52                 | 6.44   | 6.89   | 7.24   |
| 10 year bond rate              | 5.88                | 6.33    | 5.00    | 5.45    | 5.88                 | 6.26   | 6.15   | 6.33   |
| <i>United States</i>           |                     |         |         |         |                      |        |        |        |
| 3 month LIBOR                  | 5.36                | 4.70    | 3.25    | 5.00    | 5.35                 | 5.36   | 5.23   | 4.70   |
| 10 year bond rate              | 4.70                | 4.02    | 3.50    | 4.60    | 4.64                 | 5.02   | 4.59   | 4.02   |
| <i>Euro area</i>               |                     |         |         |         |                      |        |        |        |
| 3 month LIBOR                  | 3.73                | 4.68    | 4.25    | 4.25    | 3.92                 | 4.18   | 4.79   | 4.68   |
| <i>New Zealand</i>             |                     |         |         |         |                      |        |        |        |
| 90 day bank bills              | 7.75                | 8.88    | 7.53    | 6.95    | 7.93                 | 8.36   | 8.79   | 8.88   |
| <b>Exchange rates</b>          |                     |         |         |         |                      |        |        |        |
| A\$/US\$                       | 0.7896              | 0.8781  | 0.8600  | 0.7800  | 0.8074               | 0.8505 | 0.8815 | 0.8781 |
| NZ\$/US\$                      | 0.7042              | 0.7732  | 0.6800  | 0.6200  | 0.7126               | 0.7732 | 0.7567 | 0.7732 |
| A\$/¥                          | 93.87               | 98.36   | 89.44   | 88.14   | 95.31                | 104.94 | 101.63 | 98.36  |
| A\$/€                          | 0.5995              | 0.5967  | 0.6056  | 0.6190  | 0.6069               | 0.6301 | 0.6214 | 0.5967 |
| A\$/£                          | 0.4025              | 0.4376  | 0.4526  | 0.4286  | 0.4123               | 0.4242 | 0.4340 | 0.4376 |
| A\$/NZ\$                       | 1.1213              | 1.1357  | 1.2647  | 1.2581  | 1.1330               | 1.1000 | 1.1649 | 1.1357 |
| US\$/¥                         | 118.9               | 112.0   | 104.0   | 113.0   | 118.0                | 123.4  | 115.3  | 112.0  |
| €/US\$                         | 1.317               | 1.472   | 1.420   | 1.260   | 1.330                | 1.350  | 1.419  | 1.472  |
| A\$TWI                         | 64.90               | 68.70   | 66.40   | 63.04   | 65.90                | 68.90  | 70.00  | 68.70  |

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