

# **Economics, interest rates and currencies chart pack**

**Charts prepared for ANZ Senior Management** 

5<sup>th</sup> March 2008

Saul Eslake Chief Economist



## Summary of economic forecasts

	2006	2007e	2008f	2009f		
	World economy					
Oil prices (US\$ per barrel)	63	72	86	86		
US GDP growth (%)	2.9	2.2	11/4	21/4		
Europe GDP growth (%)	2.6	1.6	11/2	2		
Japan GDP growth (%)	2.4	2.1	1/2	1		
China GDP growth (%)	10.7	11.4	93/4	9		
World GDP growth (%)	4.7	4.6	31/2	31/2		
	Australian economy					
Real GDP growth (%)	2.8	4.0	31/2	<b>2</b> <sup>3</sup> / <sub>4</sub>		
Unemployment rate (year-end, %)	4.6	4.4	4	41/4		
'Underlying' inflation (year-end, %)	3.0	3.6	31/2	3		
Current account deficit (% of GDP)	-5.5	-5.9	-41/2	-4		
Credit growth (%)	14.2	16.5	12	91/2		
	New Zealand economy					
Real GDP growth (%)	1.6	3.0	11/2	21/2		
Unemployment rate (year-end, %)	3.8	3.4	4	41/4		
'Underlying' inflation (year-end, %)	2.6	3.2	3	23/4		
Current account deficit (% of GDP)	-8.6	-8.0	-61/2	<b>-6</b> <sup>3</sup> / <sub>4</sub>		
Credit growth (%)	13.6	12.8	9	83/4		



## Summary of financial market forecasts

	Mar 08	Jun 08	Dec 08	Jun 09	Dec 09
	International markets				
US Fed funds rate (% pa)	3.00	2.25	2.00	2.00	3.00
US 10-year T-note yield (% pa)	3.55	4.00	3.75	3.25	3.50
ECB refi rate (% pa)	4.00	4.00	3.50	3.50	3.75
€ - US\$	1.52	1.54	1.47	1.38	1.26
US\$ - ¥					
Yuan – US\$					
	Australian markets				
RBA cash rate (% pa)	6.75	7.50	7.50	7.50	7.50
90-day bill yield (% pa)	7.25	7.85	7.75	7.70	7.70
10-year bond yield (% pa)	6.33	6.40	5.75	5.00	5.50
A\$-US\$	0.88	0.96	0.91	0.85	0.79
	New Zealand markets				
RBNZ cash rate (% pa)	8.25	8.25	7.50	6.75	6.75
10-year bond yield (% pa)	6.28	6.43	5.88	5.28	5.34
NZ\$-US\$	0.77	0.78	0.69	0.64	0.62
AS-NZ\$	1.14	1.21	1.30	1.31	1.26

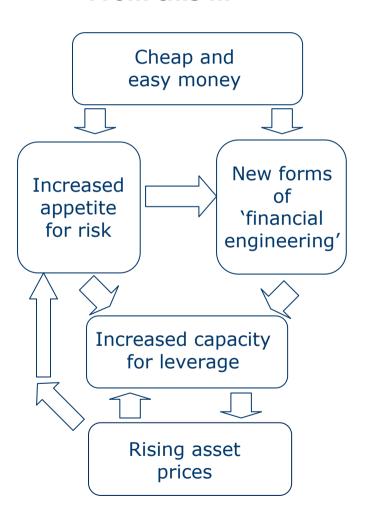


## Australia's economy is at the intersection of two very powerful global forces

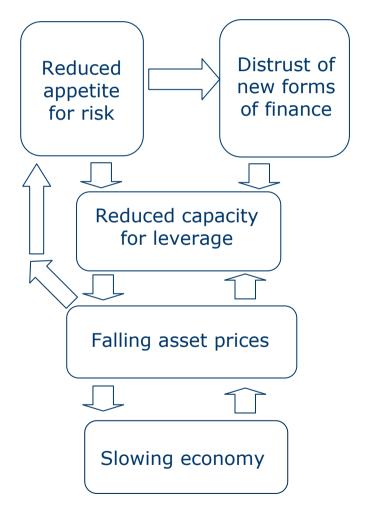
- The crisis in global credit markets
  - resulting from the bursting of the credit market 'bubble' which built up during the middle years of this decade
  - triggered by, but no longer confined to, the US sub-prime mortgage market
  - resulting in substantial declines in the value of a wide range of securities and derivatives
  - threatening to lead to a global 'credit crunch'
  - and possibly to a recession in the US and other large industrialized economies
- The on-going rapid growth and industrialization of China and other emerging economies
  - putting continued upward pressure on a wide range of commodity prices
  - as well as heightening concerns about climate change
- Australia is exposed to both of these forces
  - financing the world's fourth largest current account deficit predominantly through borrowing means Australia is exposed to the risk of a global 'credit crunch'
  - but the commodities boom is also adding directly and indirectly to inflationary pressures within Australia, and putting upward pressure on the A\$
- Australia's short- to medium-term macroeconomic prospects will largely depend on the relative strength of these two forces

## The current global financial crisis stems from the bursting of a 'credit market bubble'

#### From this ...



#### To this ....





The credit market crisis was triggered by the bursting of the US housing 'bubble' beginning in mid-2006

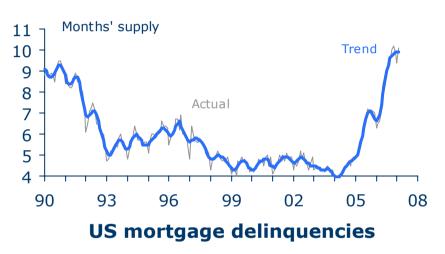
#### **US** housing market

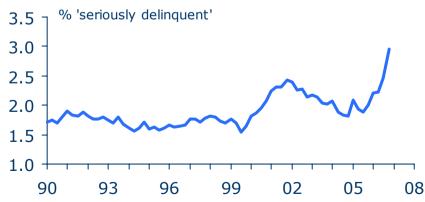






#### **US unsold homes**





Sources: S&P; US Commerce Department; US National Association of Realtors; US Mortgage Bankers' Association.



## Dramatic declines in the value of mortgage-backed securities have led to substantial losses incurred by big global banks

## **ABX index of prices of US mortgage-backed securities**





Source: Bloomberg.

## Losses announced by major banks since mid-2007

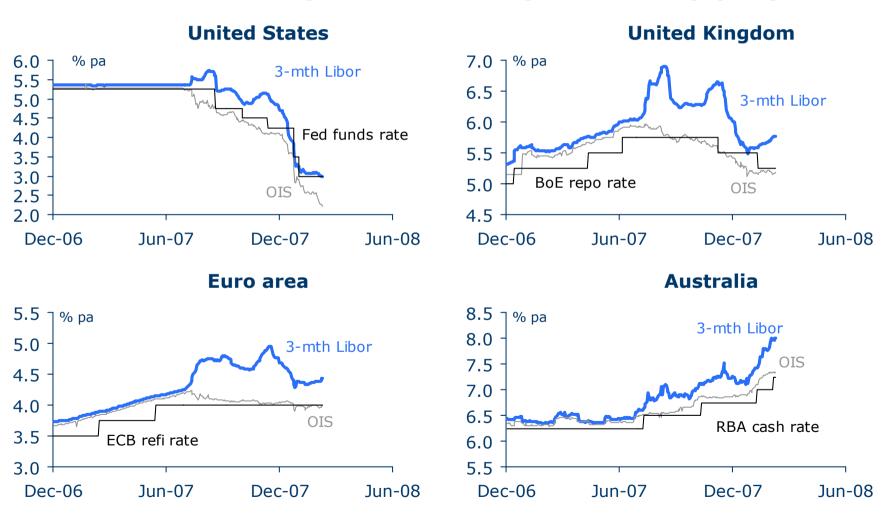
Bank	Total (US\$ bn)
Merrill Lynch	24.5
Citigroup	22.1
UBS	18.3
HSBC	10.7
Morgan Stanley	9.4
Bank of America	7.9
Washington Mutual	6.5
Credit Agricole	4.9
Wachovia	4.7
JPMorgan Chase	3.2
Canadian Imperial (CIBC)	3.2
Barclays	2.7
Bear Sterns	2.6
Royal Bank of Scotland	2.5
Deutsche Bank	2.3
Wells Fargo	1.7
TOTAL*	141.0

<sup>\*</sup> incl. smaller banks not shown separately.



## These losses (and fears of more to come) have made banks reluctant to lend to one another

#### Inter-bank borrowing rates and overnight index swap (OIS) rates

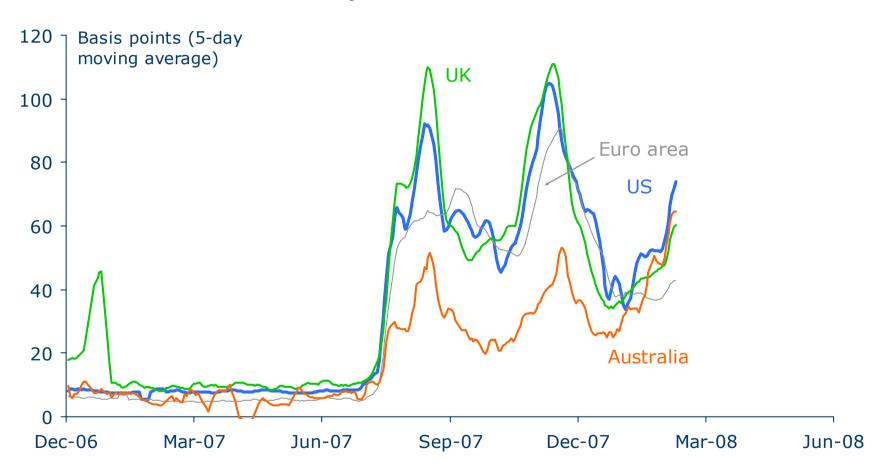


<sup>\*</sup> The OIS is an indicator of market expectations of future movements in cash rates. *Sources:* Thomson Financial; Bloomberg.



### Banks short-term funding spreads are widening again (for the third time since mid-2007)

## Spreads between short-term (90-day) inter-bank borrowing rates and expected official cash rates



*Note:* 'expected official cash rates' proxied by overnight index swaps (OIS). *Sources:* Thomson Financial; Bloomberg.

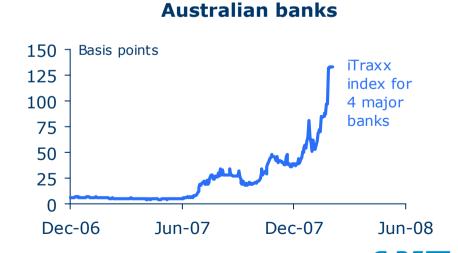


#### **Credit default swap (CDS) spreads**





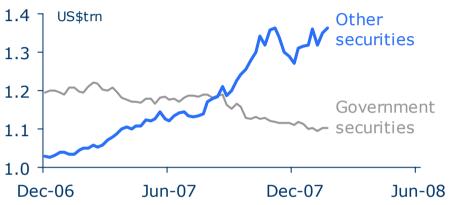




Sources: Thomson Financial; Bloomberg.

## Sharply diminished investor appetite for securities has forced banks to take large volumes of assets onto their balance sheets

#### US banks' securities holdings



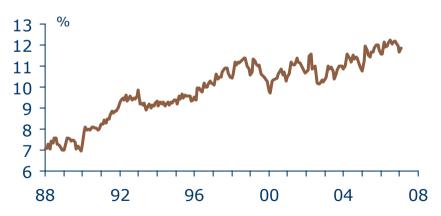
US banks' commercial & industrial loans



#### **US banks' business lending**



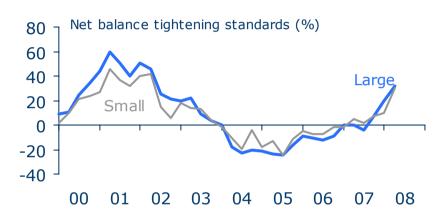
**US bank capital adequacy\*** 



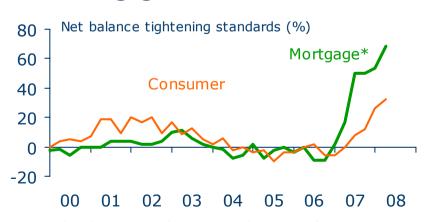
<sup>\*</sup> Ratio of banks' assets to difference between assets and liabilities for domestically chartered US banks (at best a rough proxy for capital, and no allowance for risk weights). *Sources:* US Federal Reserve.

## Banks in the US and the euro area are tightening credit standards

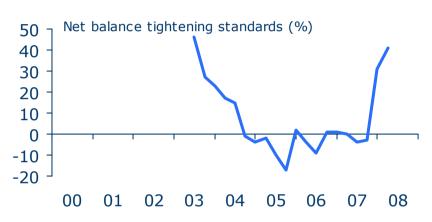
## **US banks Commercial & industrial loans**



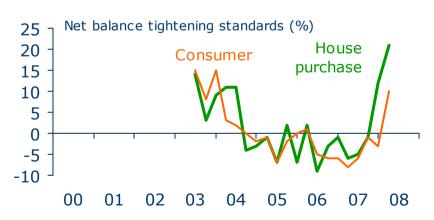
#### **Mortgage and consumer loans**



## **Euro area banks Loans to enterprises**



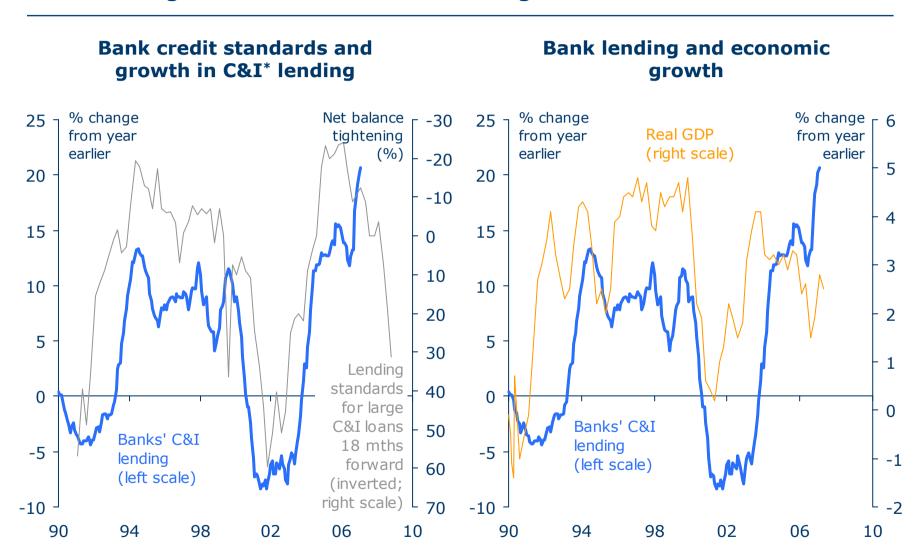
#### **Mortgage and consumer loans**



\* Weighted average of prime & sub-prime after June 2007 Sources: US Federal Reserve and European Central Bank surveys of loan officers.



## The tightening in lending standards will lead to slower growth in bank lending and to slower economic growth



<sup>\*</sup> Commercial and industrial.

Sources: US Federal Reserve; US Bureau of Economic Analysis.



#### January's panic selling has ceased, but equity markets remain vulnerable to earnings downgrades and other shocks

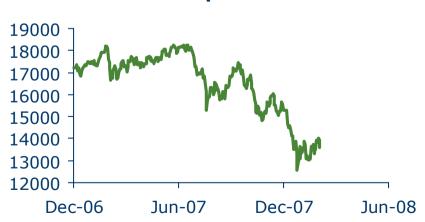
#### **Equity markets**





Japan - Nikkei





Source: Thomson Financial.



## A number of high-profile composite indicators suggest the US economy may be in, or heading for, a recession

#### **Composite indicators of US economic activity**

#### Purchasing managers' indices

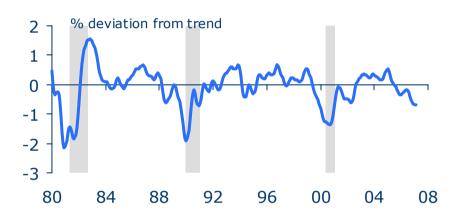
# 70 Net balance (%, trend) 65 60 55 50 45 40 -

35

80

84

#### **Chicago Fed activity index**



#### **Conference Board leading indicators**

96

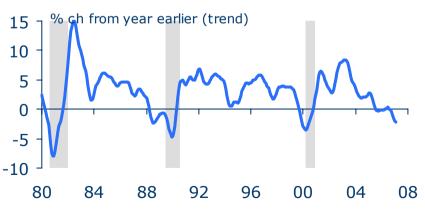
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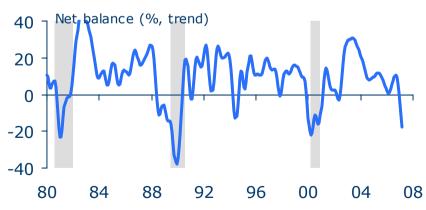
08

92

88



**Philadelphia Fed activity index** 



*Note:* Shaded areas denote recessions as defined by the National Bureau of Economic Research. *Sources:* Institute of Supply Management (ISM); The Conference Board; Federal Reserve Banks of Chicago and Philadelphia.



The US housing market looks worse, on most indicators, than it did prior to the last two recessions

#### **US** housing market indicators in three cycles

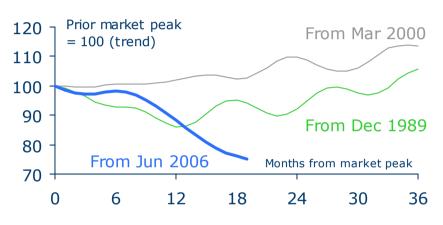




## **Housing starts**



#### **Established home sales**



#### **Unsold homes**



Sources: S&P; US Commerce Department; US National Association of Realtors; ANZ.

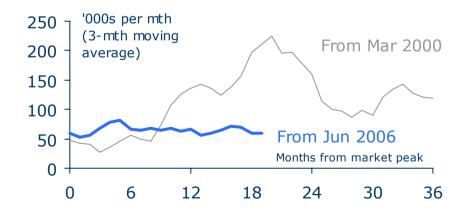
So far, however, the US labour market is not deteriorating as quickly as it did prior to the last two recessions

#### **US labour market indicators in three cycles**

#### Non-farm payroll employment

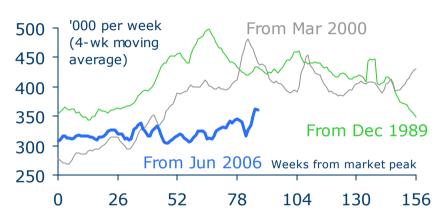


#### **Layoff announcements**

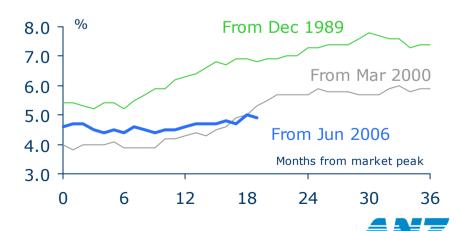


Sources: US Bureau of Labor Statistics; Challenger; ANZ.

#### **Initial claims for unemployment benefits**



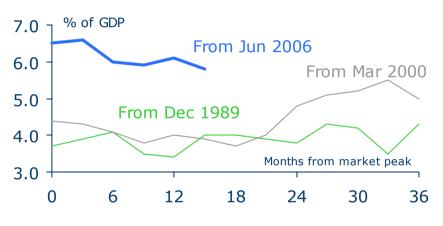
#### **Unemployment rate**



The US non-financial sector is in a strong financial position, and isn't retrenching in the way it has done in past recessions

#### US business finances and activity in three cycles

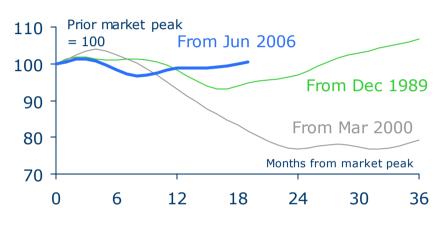
#### After-tax corporate profits<sup>†</sup>



#### **Debt-equity ratio**<sup>†</sup>



#### Non-defence capital goods orders\*



#### **Manufacturing inventories**



Sources: US Bureau of Economic Analysis; Federal Reserve; Commerce Department; ANZ.

<sup>†</sup> Non-financial corporations \* Excluding aircraft.

Household finances are likely to play a larger role in shaping the 19 current cycle than in previous recessions

#### US household finances and spending in three cycles

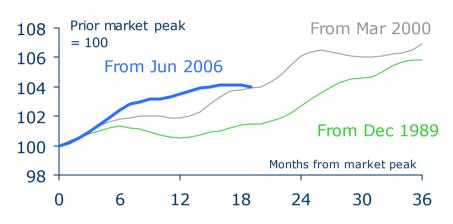
#### Real personal disposable income



#### Personal net worth



#### Real consumer spending



#### **Personal saving ratio**



Sources: US Bureau of Economic Analysis; Federal Reserve; ANZ.



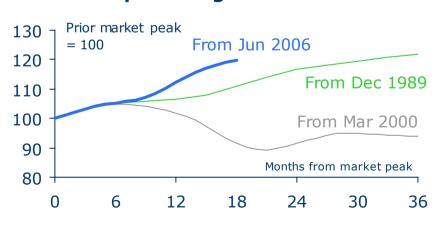
Rising exports, aided by a weaker US\$, have more than offset the impact on GDP growth of falling housing construction

#### US dollar, exports and housing

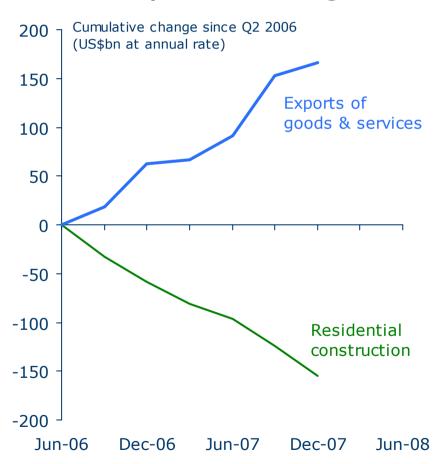
#### **Trade-weighted value of US\$**



#### Real exports of goods and services



#### **Exports and housing**

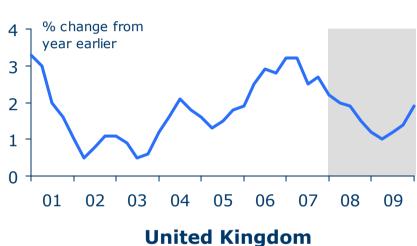




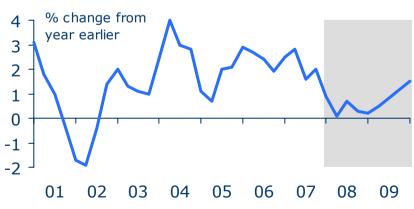
The US may not experience outright recession, but growth there <sup>21</sup> and in other advanced economies will slow sharply in 2008

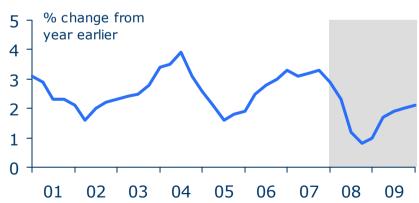
#### Major advanced economies - real GDP growth





**Euro** zone



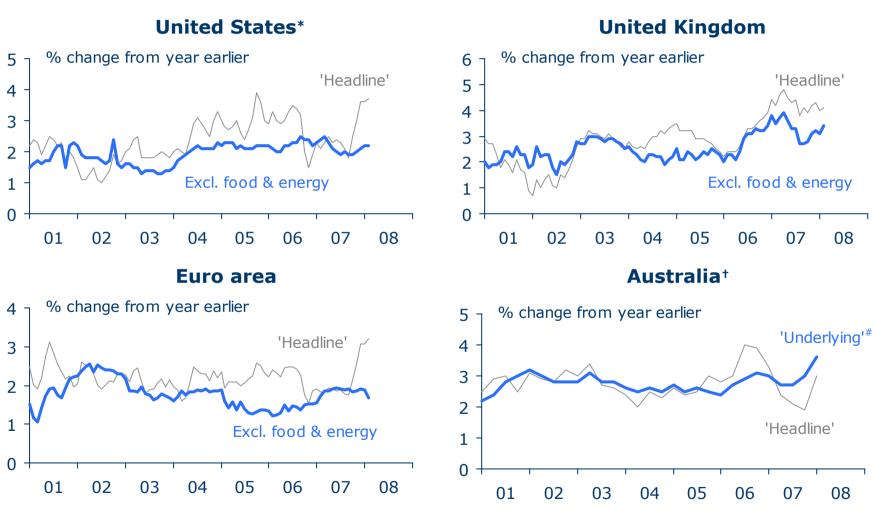


Sources: national statistical agencies; ANZ.



## The Fed and BoE have been willing to downplay inflation risks; other central banks haven't

#### **Consumer price inflation**



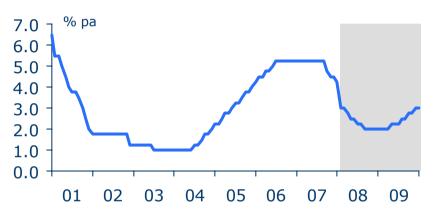
<sup>\*</sup> Personal consumption expenditure deflator. † excludes GST impact in 2001. # Average of RBA's two preferred measures. *Sources:* US Bureau of Economic Analysis; Eurostat; UK Office of National Statistics; ABS; RBA.



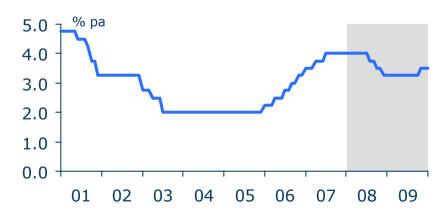
So far the US Federal Reserve has cut rates the most; the ECB hasn't cut at all; and Australia has lifted rates three times

#### **Monetary policy interest rates**

#### **US** federal funds rate



#### **European Central Bank refi rate**



#### **Bank of England repo rate**



**Reserve Bank of Australia cash rate** 





#### US dollar vs euro and yen

#### US dollar vs euro



1.60

01

02 03

04

05

06

#### **US** dollar vs yen





07

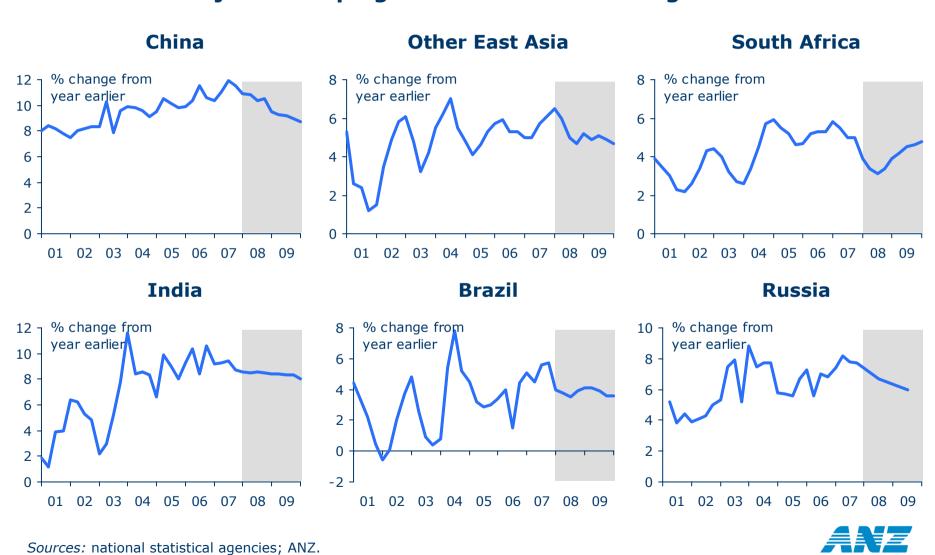
80

09

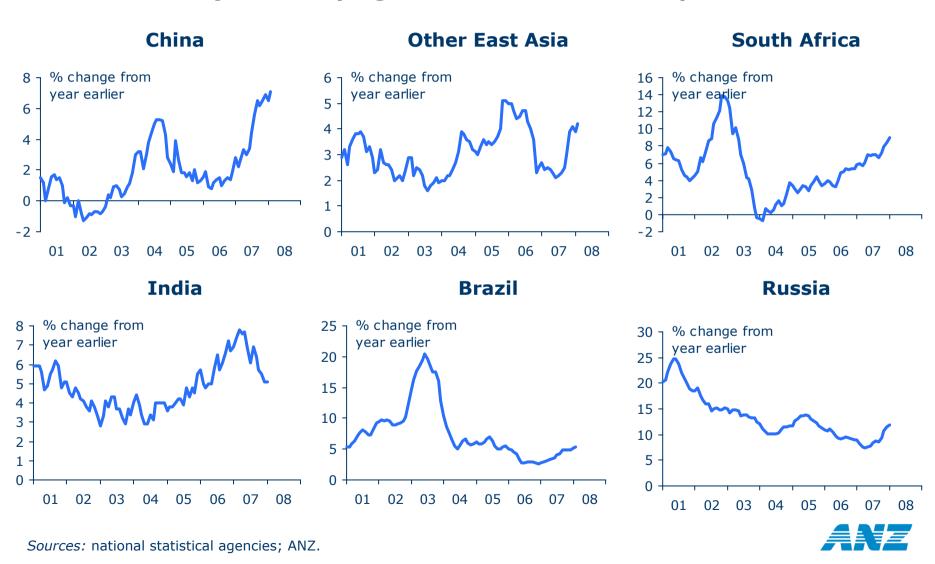


Major developing countries should continue to experience relatively strong growth, albeit a little slower than in 2006-07

#### Major developing economies - real GDP growth

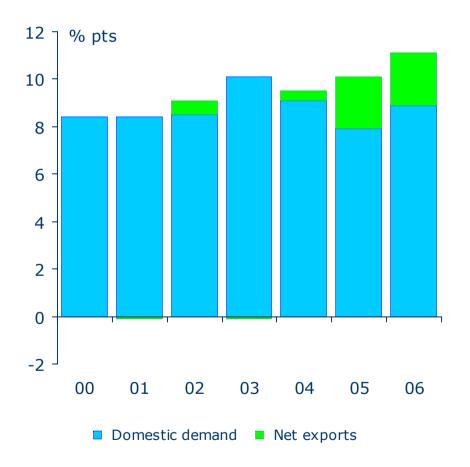


#### Major developing economies - consumer prices

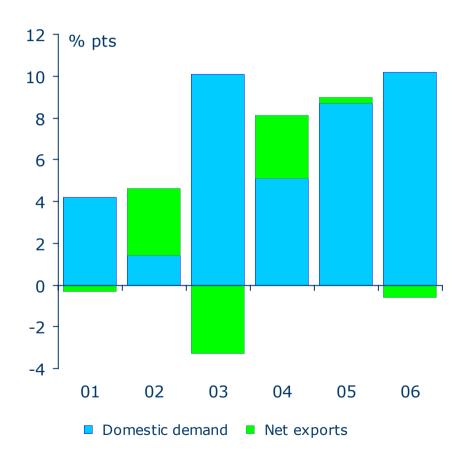


## China's and India's growth has been predominantly driven by domestic demand, not by net exports

## **Contributions to China's real GDP growth**



## **Contributions to India's real GDP growth**



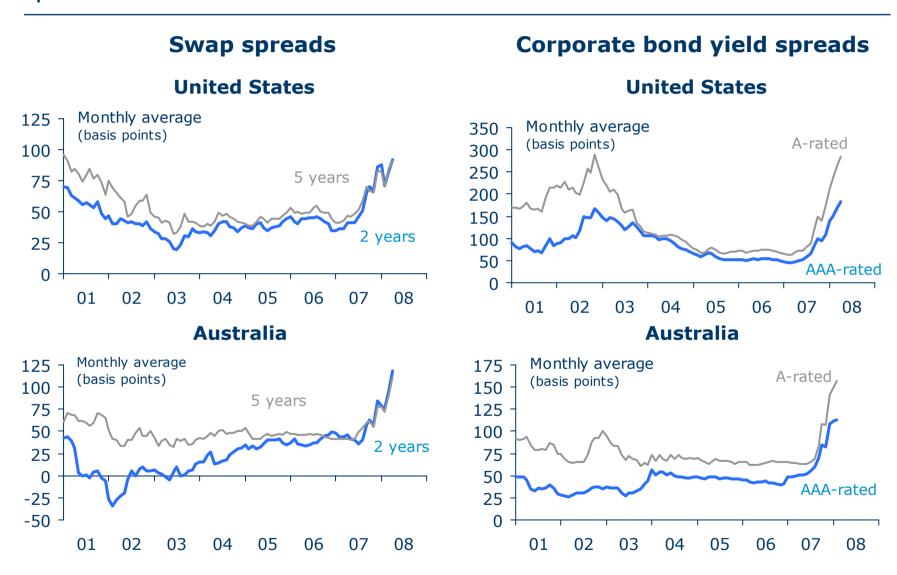
Source: China National Bureau of Statistics, CEIC.



## Australia's economy is at the intersection of two very powerful global forces

- The crisis in global credit markets
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  - triggered by, but no longer confined to, the US sub-prime mortgage market
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  - but the commodities boom is also adding directly and indirectly to inflationary pressures within Australia, and putting upward pressure on the A\$
- Australia's short- to medium-term macroeconomic prospects will largely depend on the relative strength of these two forces

## Australian debt markets have seen similar increases in spreads as in the US

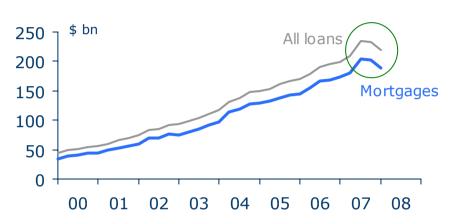


Note: spreads are to government bond yields of comparable maturities. *Sources:* Thomson Financial; Bloomberg; Reserve Bank of Australia.

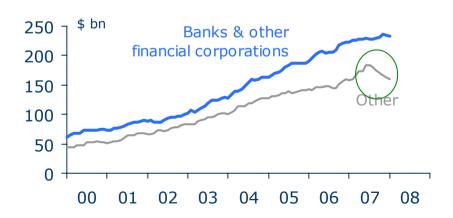


### In Australia, as in the US, the debt securities markets have almost completely closed to non-bank borrowers





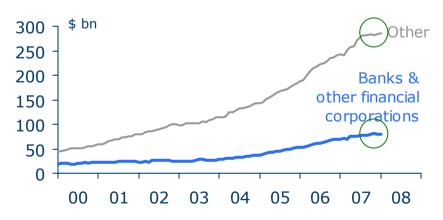
## Australian non-government debt securities issued offshore



## Short-term debt securities issued in Australia



## Long-term debt securities issued in Australia



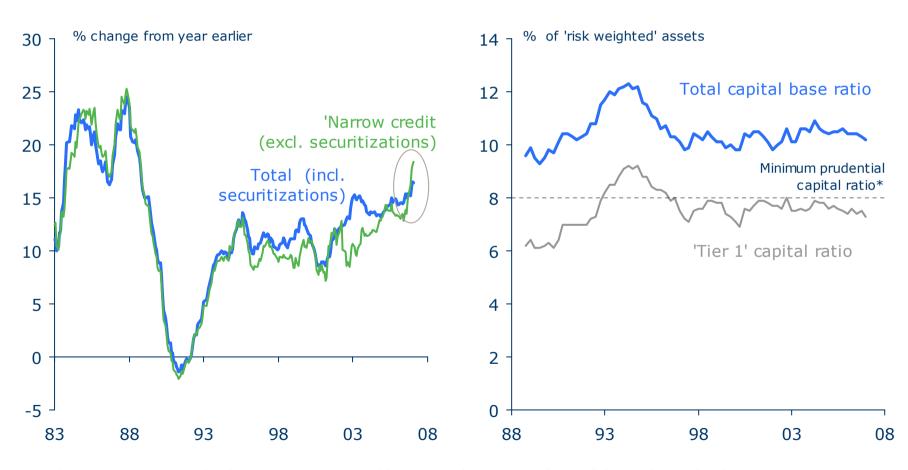
Note: excludes government debt securities. Source: Reserve Bank of Australia



## With debt securities markets largely closed, credit demand is returning to the banking system – straining banks' capital

## Australian financial intermediaries' business lending

## Australian banks' capital adequacy ratios

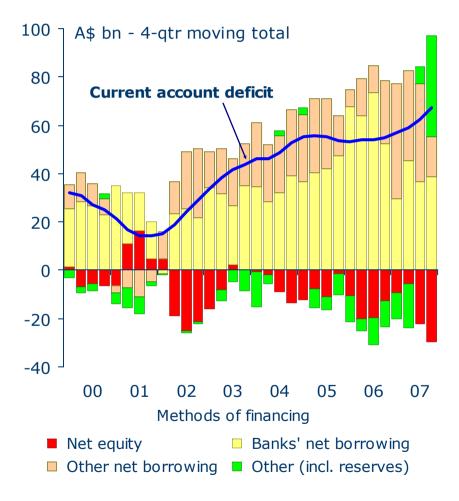


<sup>\*</sup> Under APRA regulations, banks must maintain total base capital in excess of 8% of their risk-weighted assets, half of which must be in the form of 'Tier 1' capital (paid-up capital, disclosed reserves and retained earnings). Sources: Reserve Bank of Australia; Australian Prudential Regulation Authority.

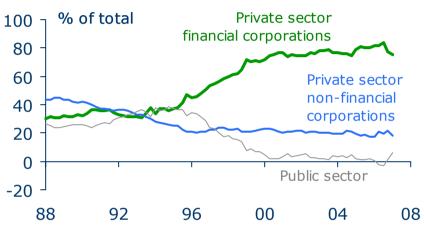


# Reliance on banks' overseas borrowings to finance the deficit leaves Australia exposed to abrupt shifts in global markets

## Financing Australia's current account deficit



#### Net foreign debt, by borrower



**Maturity structure of net foreign debt** 

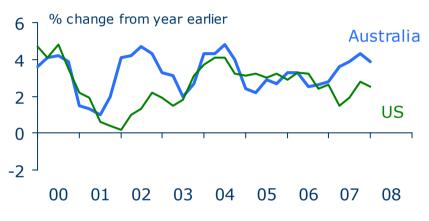




# Australian and US economic cycles have not been closely correlated this decade, and are diverging further now

#### **Australian and US economic indicators**

#### **Real GDP growth**



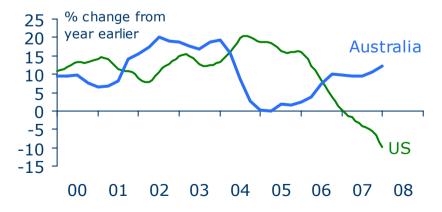
#### Unemployment



#### **Terms of trade**



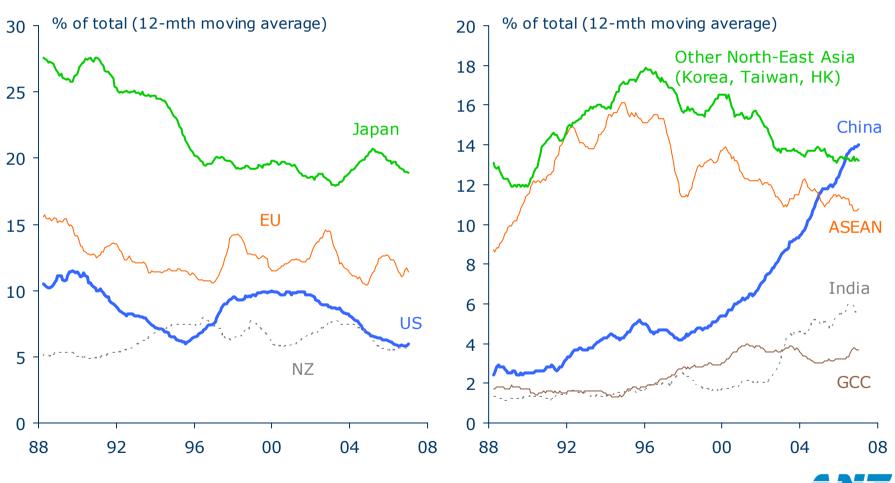
#### **House prices**





#### **Australia's major export markets**

#### **Advanced economies Developing economies**

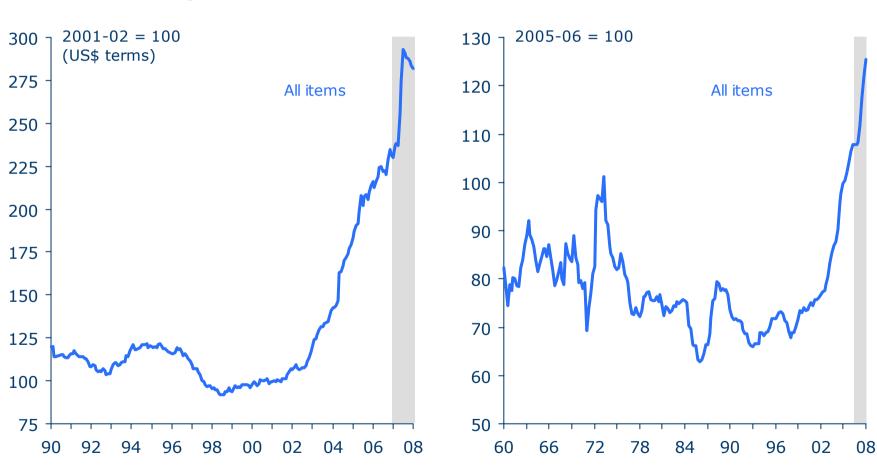


Sources: Australian Bureau of Statistics.

Expected rises in coal and iron ore export prices will deliver a further leg upwards in the commodity price cycle in 2008-09

## Australian export commodity prices

#### Australia's "terms of trade"

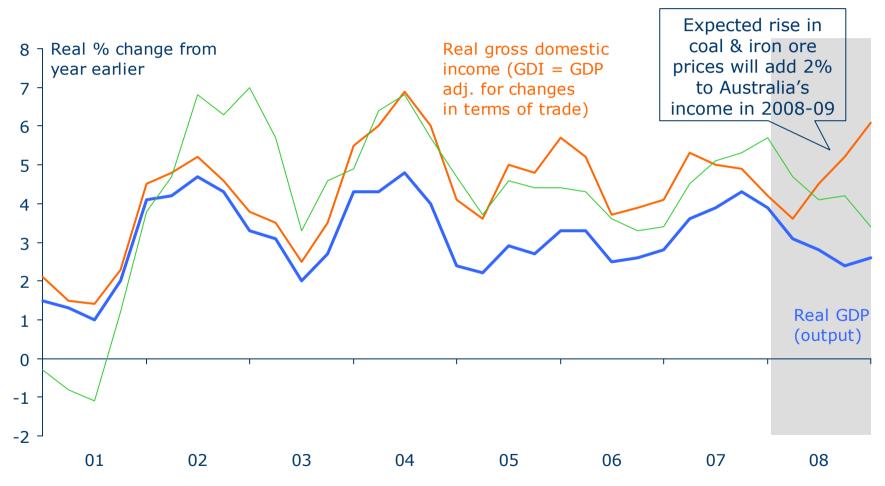


*Note:* "terms of trade" is the ratio of average export to average import prices. *Sources:* Reserve Bank of Australia; ABS; ANZ.



This will boost Australia's income by another 2% in 2008-09, on top of 11% from terms of trade gains already so far this decade

#### Australia's real gross domestic income and output

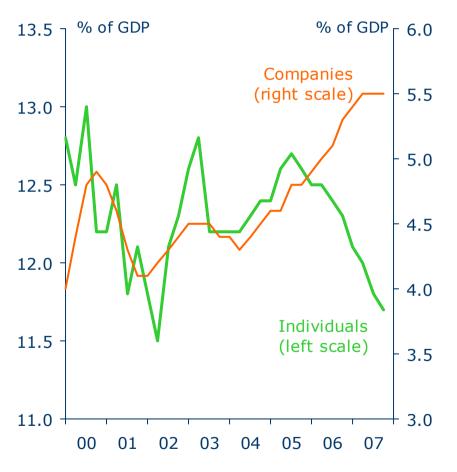


Sources: Australian Bureau of Statistics; ANZ.

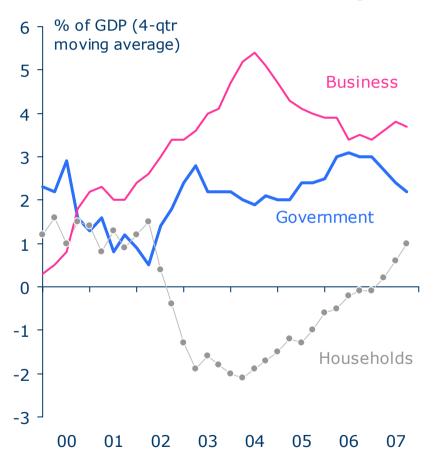


# Income will continue to be re-cycled from the business sector to households through the Budget, boosting total spending

# **Australian income** tax collections



# **Net saving by sectors of the Australian economy**

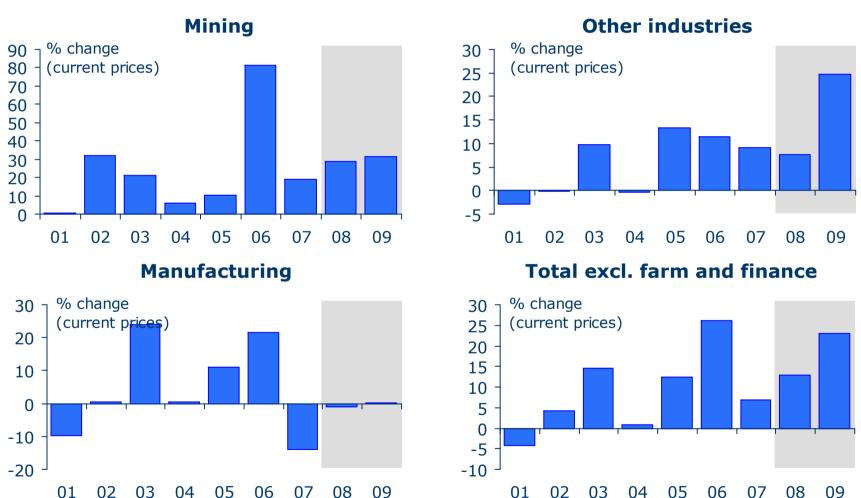


Sources: Australian Bureau of Statistics; ANZ.



# Business investment is expected to keep rising strongly, despite global uncertainties and deteriorating financial conditions

# Actual and projected capital expenditure



*Note:* Data are for financial years ended 30 June. Projections for 2007-08 and 2008-09 are based on expected levels of capital expenditure reported to the ABS in its January-February 2008 survey, adjusted for the extent to which expectations in this survey have been realized over the five years to 2006-07. *Sources:* ABS; ANZ.



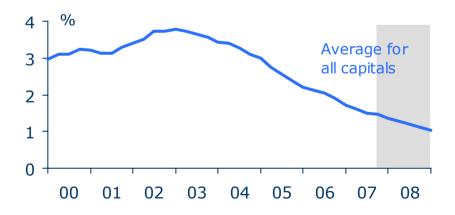
The Australian housing market is likely to remain characterized by excess demand – a stark contrast to the US housing market

# **Australian housing market fundamentals**

## Housing supply and demand



#### **Rental vacancy rates**



### **Capital city house prices**



### **Capital city dwelling rents**



Sources: Australian Bureau of Statistics; Real Estate Institute of Australia; ANZ.

After more than 16 years of continuous economic growth, Australia's economy has run into serious capacity constraints

# **Indicators of 'spare capacity' in the Australian economy**

### **Unemployed persons per job vacancy**



#### **Businesses reporting labour shortages**



# **Capacity utilization rate**



% 25 20 15 10 5 88 92 96 00 04 08

Sources: Australian Bureau of Statistics; nabCapital; Property Council of Australia.

Businesses in many sectors have been able to increase profit margins in these circumstances despite rising costs

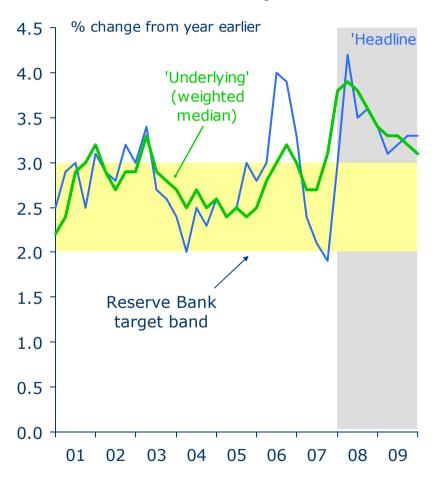
# **Profit margins\* in selected industries**



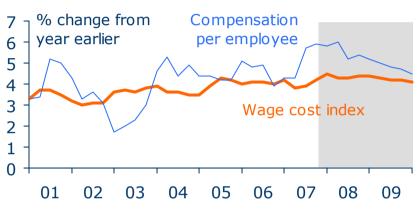
<sup>\*</sup> Defined as gross operating profits as a % of sales and shown as a 4-quarter moving average. Sources: Australian Bureau of Statistics; ANZ.

# Underlying inflation is at its highest level since 1991 – and the RBA is particularly concerned at rising inflation expectations

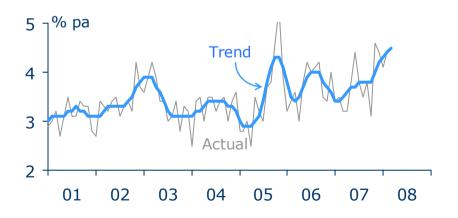
# **Consumer prices**



# **Measures of labour costs**



# **Household inflation expectations**





# In a fully employed economy if some sectors are to grow rapidly 43 then others have to shrink

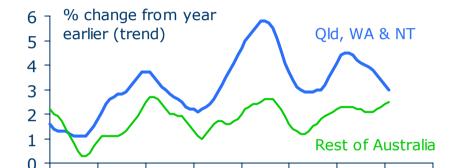
- After more than 16 years of continuous growth Australia's economy is running out of 'spare capacity'
- As a result, increases in aggregate demand in excess of the growth rate of the economy's 'supply potential' will inevitably lead to higher inflation, a larger current account deficit, or both
- If, in this situation, some sectors (eg mining) are to grow rapidly in order to meet global demand, other sectors <u>have</u> to grow more slowly (or shrink) if these consequences are to be avoided
- Similarly if some regions (eg WA and Qld) are being pushed towards faster growth then other regions must of necessity grow at a slower rate
- In practice, the 'room' required by faster growth in particular sectors or regions is being created by a combination of
  - rising interest rates
  - a stronger exchange rate
  - and rising costs
- <u>Inevitably</u>, these will disproportionately impact households with a mortgage, and sectors such as manufacturing and tourism
- Over the medium-to-longer term the only way to avoid this situation is through policies which expand the economy's 'supply' potential



Resources boom benefits north and west more than the southeast, but the gap between the two is now narrowing a bit

#### **Resource-rich vs other States and Territories**

#### **Employment**



04

#### **Business investment**

05

06

07

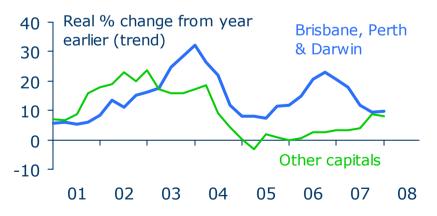
08



## **Retail sales**



## **House prices**





02

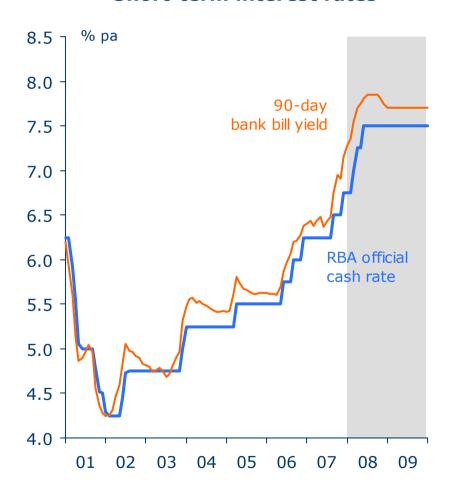
03

01



# Reserve Bank will hike rates at least twice more to 'slow demand' and bring inflation back within the target range

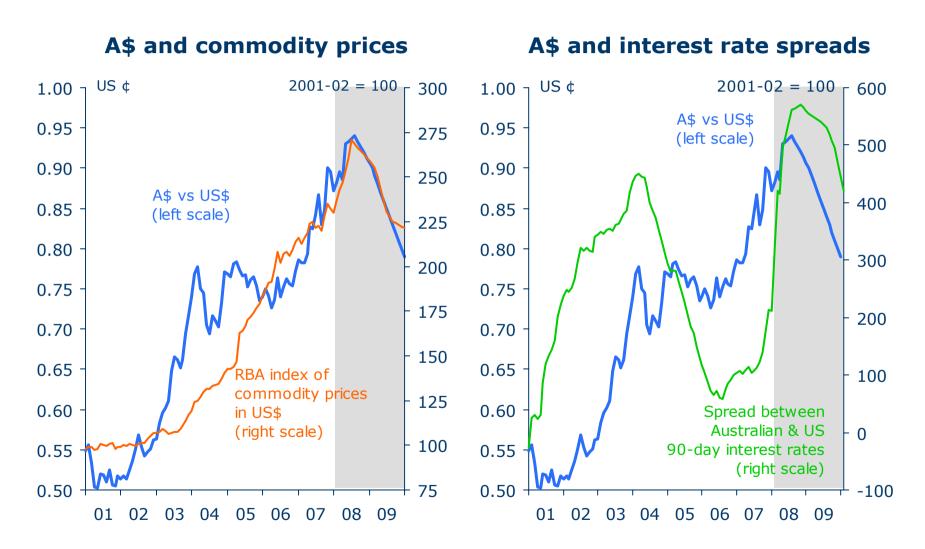
#### **Short-term interest rates**



Sources: Thomson Financial; ANZ.

- 10 interest rate increases since mid-2002 have had little lasting impact in restraining growth in domestic demand – largely because they've been offset by commodity-related income gains, repeated rounds of tax cuts etc.
- The RBA now says that 'a significant slowing in domestic demand ... is likely to be necessary to reduce inflation over time' ...
- ... and that unless something else happens to produce such a slowdown (for example, sharply weaker global growth, tighter credit conditions, changes in fiscal policy etc.) ..
- ... 'monetary policy is likely to need to be tighter in the period ahead' (ie, rates will rise some more)
- In other words there will be a 'significant slowing in demand', what is not clear is how high rates will have to go in order to procure it

# Commodity prices and interest rate spreads likely to continue supporting the A\$ into the second half of this year





#### Scenario 1

- An inter-related combination of falling share prices, declining business and consumer confidence, and significantly tighter conditions in domestic credit markets could lead to an earlier and more marked slowdown in domestic spending than in our 'base case' forecast
- In those circumstances the Reserve Bank would reverse course abruptly, cutting rates once it was clear that domestic demand was slowing and unemployment was rising
- The A\$ would likely fall sharply in such a scenario

### **Scenario 2**

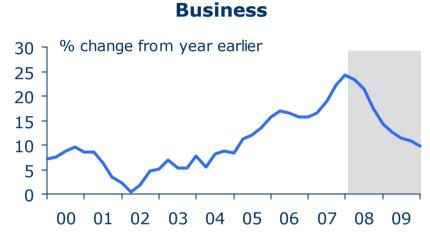
- Domestic demand could continue to be surprisingly resilient to further interest rate hikes, and tightening domestic credit conditions (because of rising commodity incomes, tax cuts etc)
- In those circumstances the Reserve Bank could continue raising interest rates (beyond our 'base case' of 7½%) until domestic demand began slowing abruptly
- Once clear signs that the business cycle had turned decisively became apparent, the RBA would start cutting rates (but from a higher level than in our 'base case'
- The A\$ would initially rise further than in our 'base case', but subsequently fall more sharply



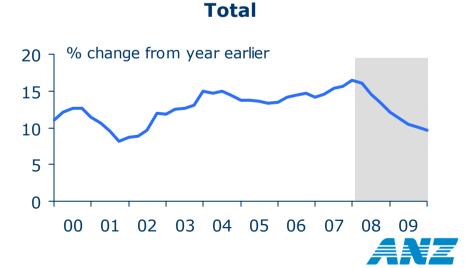
# Credit growth is expected to slow over the next two years reflecting both demand and supply influences

# **Credit growth**







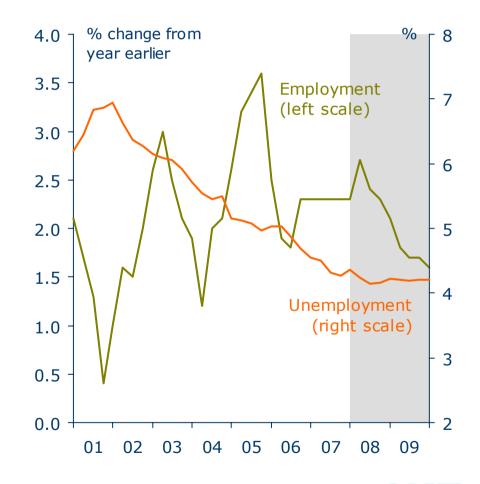


Sources: RBA; ANZ.

# **Spending and output**

#### 8 ¬Real % change from year earlier 7 Domestic final demand 6 5 4 3 2 **GDP** (output) 1 0 -1 -2 01 02 07 08 09 03 04 05 06

# **Employment and unemployment**



Sources: Australian Bureau of Statistics; ANZ.



NZ economy has shown remarkable resilience in the face of high 50 interest rates and a persistently strong NZ dollar

# **Key indicators of New Zealand economy**

### **Real GDP growth**



## **Unemployment**



## **Capacity utilization**



#### **Inflation**

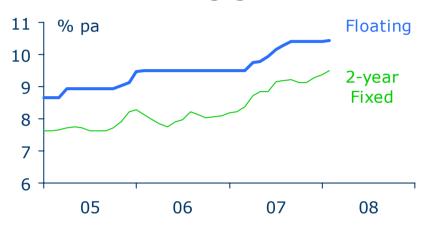


Sources: Statistics NZ; NZIER; RBNZ

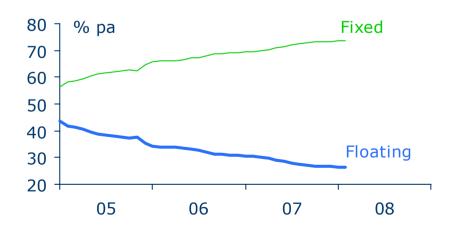


# The impact of rising cash rates on households has been delayed by the spread of fixed-rate mortgages

### **Mortgage rates**

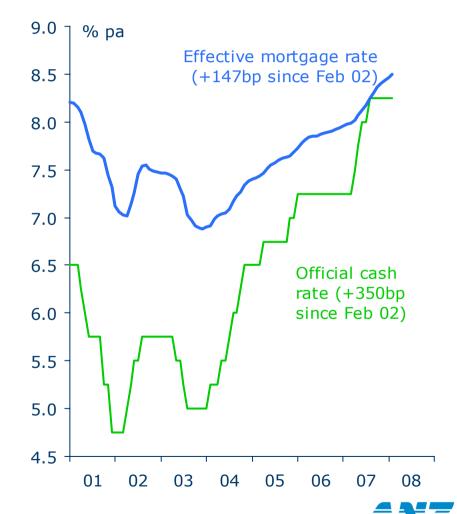


# Floating vs fixed rate mortgages



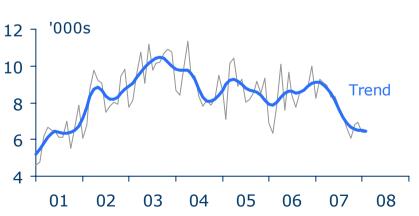
Source: Reserve Bank of New Zealand

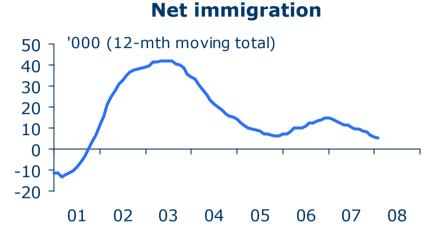
## **Cash vs mortgage rates**



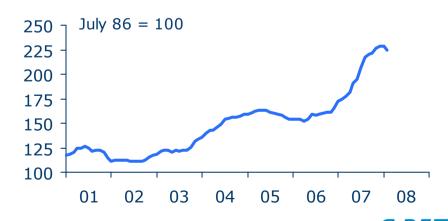
# However some of the key factors supporting growth in the NZ economy appear to be weakening







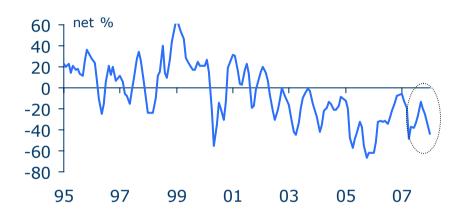
# **Export commodity prices**



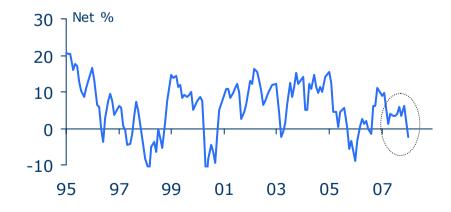
Sources: REINZ; Statistics NZ; ANZ National Bank.

# Business confidence has declined once again at the beginning of 2008

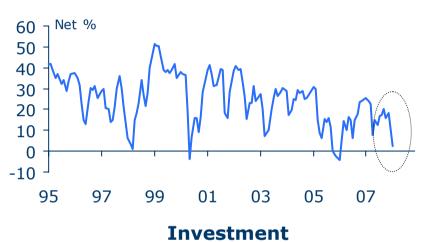
### **Headline confidence**

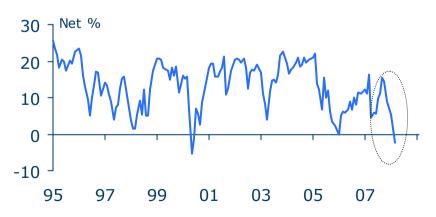


# **Employment**



# **Own activity**

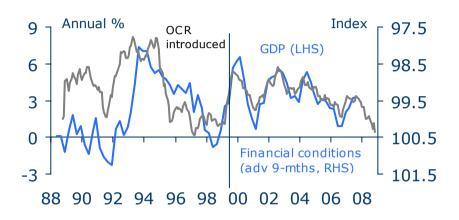




Sources: ANZ National



#### **Financial conditions tight**

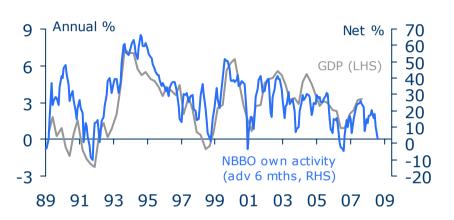


### **Equity market bearish**

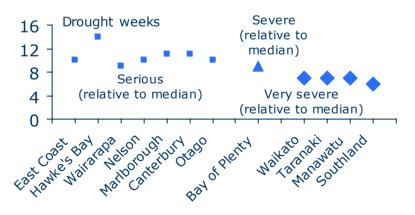


Sources: ANZ National, Statistics NZ, REINZ, NIWA

# **Business confidence falling**



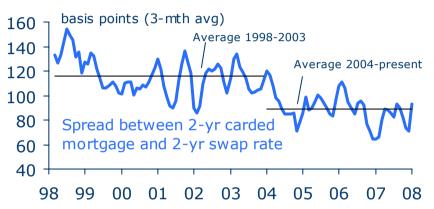
# Drought conditions likely to weigh on agricultural production



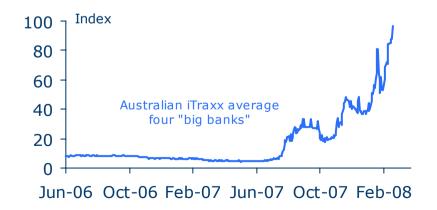


# Credit is surpassing inflation as the biggest issue facing the economy at present

# Cheap funding allowed aggressive pricing previously

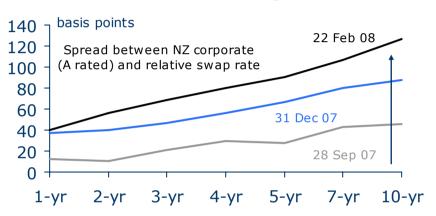


## Funding is no longer cheap



Sources: ANZ National, Bloomberg, www.interest.co.nz

# Corporate spreads are increasing

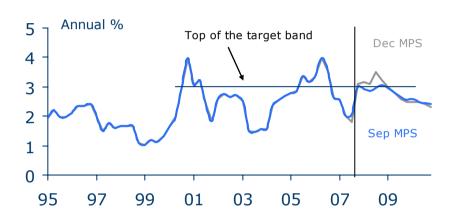


Higher funding costs are being passed on

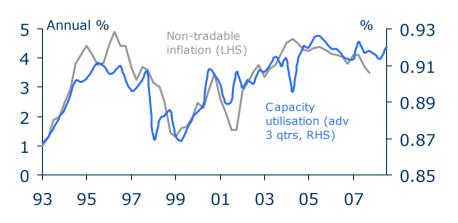




# RBNZ's inflation projections exceed 3% for most of next year

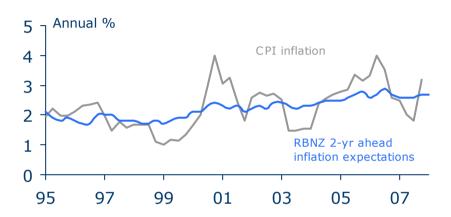


### Resource pressures remain tight



Sources: ANZ National, RBNZ, NZIER, Statistics NZ

# Inflation expectations remain elevated



### **Food prices heading skywards**



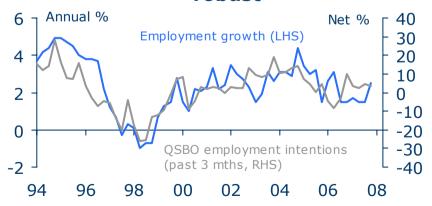


# The economy is very dependent on late-cycle support from the labour market and fiscal policy

# Unemployment rate at record lows

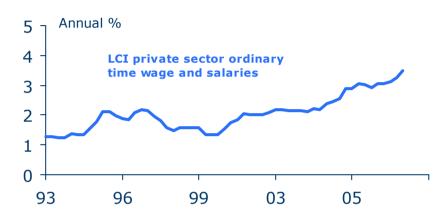


# **Employment intentions remain** robust

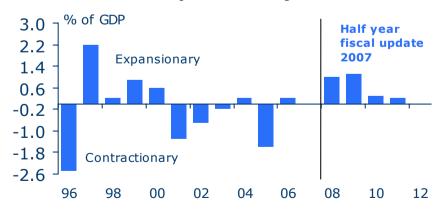


Sources: ANZ National, Statistics NZ, NZIER, Treasury

#### Wage growth at record highs



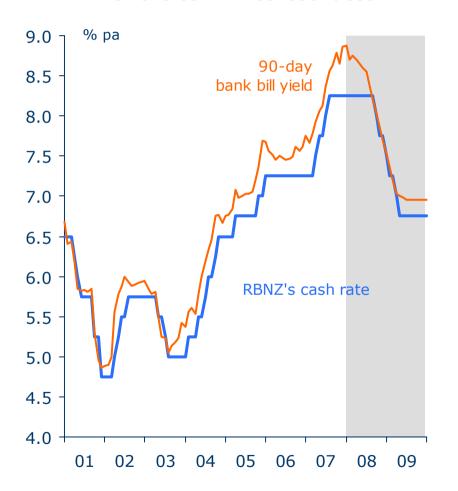
Fiscal policy set to become more expansionary



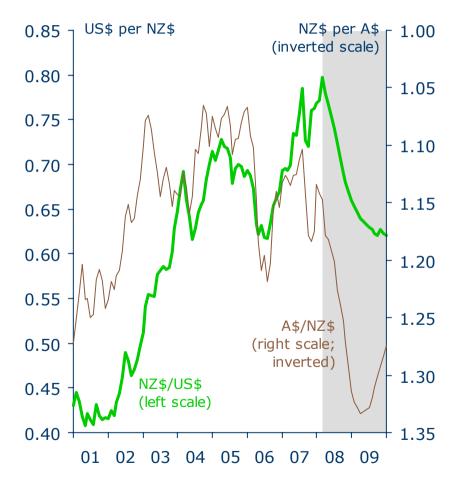


# RBNZ won't react to slowing growth until inflation has peaked, but NZ\$ will anticipate rate cuts and easing commodity prices

#### **Short-term interest rates**



#### **New Zealand dollar**







# New Zealand credit growth is expected to slow over the next 18 months

### **Housing credit**



**Business credit - other** 



Sources: ANZ National, RBNZ

## **Business credit - agriculture**



**Total credit** 

