

# Turbulent times for the global and Australian economies

**Presentations to ANZ clients** 

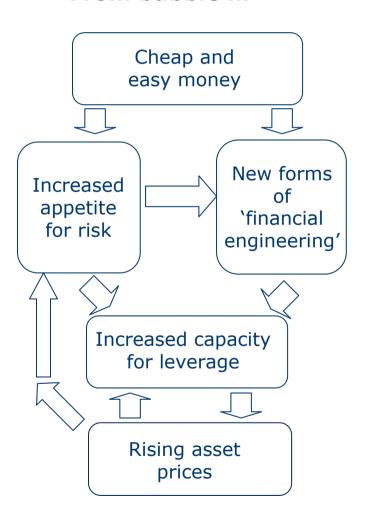
October 2008

Saul Eslake Chief Economist

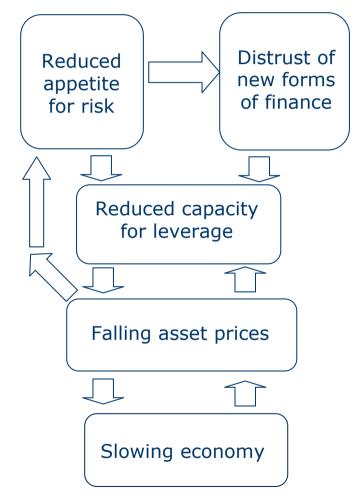


## The current global financial crisis stems from the bursting of a 'credit market bubble'

#### From bubble ...



#### To bust ....

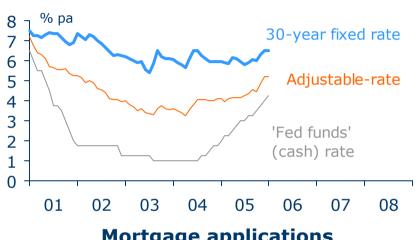




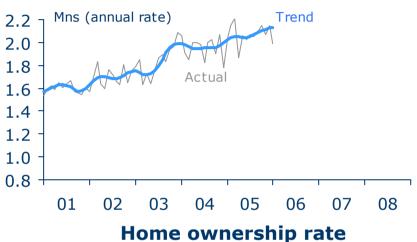
#### For a time, low interest rates and the explosion in 'sub-prime' lending created boom conditions in the US housing market

#### **US housing market indicators up to 2005**

#### **Mortgage interest rates**



#### **Housing starts**



#### Mortgage applications



## % of households



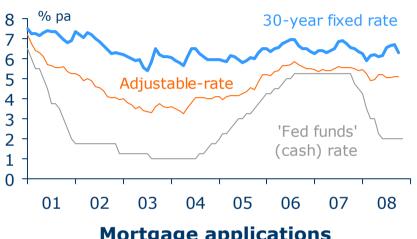
Sources: Mortgage Bankers' Association of America; US Commerce Department.



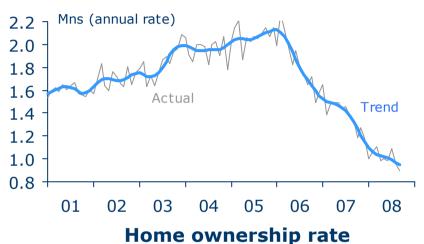
#### But eventually the bubble burst, as bubbles always do

#### **US housing market indicators up to 2008**

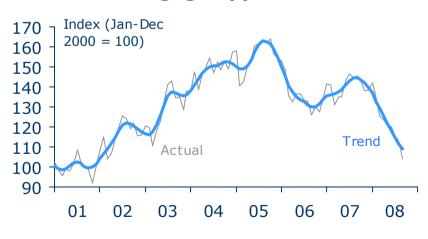
### **Mortgage interest rates**



#### **Housing starts**



#### **Mortgage applications**





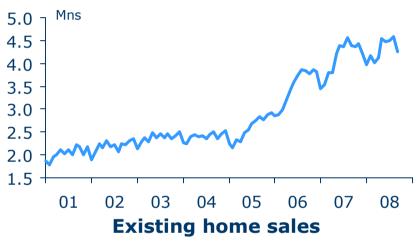
Sources: Mortgage Bankers' Association of America; US Commerce Department.



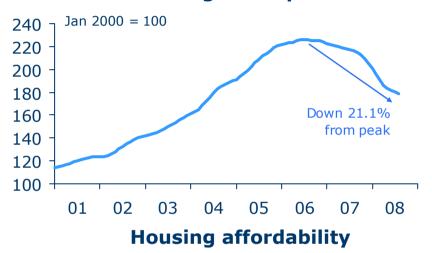
Excess supply of housing as a result of rising defaults and foreclosures is putting sustained downward pressure on prices

#### **US** housing market indicators

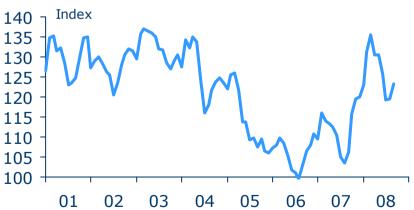
#### **Existing houses for sale**



#### **Existing home prices**







Sources: US National Association of Realtors; Commerce Department; S&P (the Case-Shiller index).



# The US mortgage market meltdown has prompted a tidal wave of losses and write-downs by banks around the world

#### **US mortgage delinquencies**





## Losses & write-downs announced since mid-2007

Country of origin	Total (US\$ bn)
US banks	322.3
European banks	229.4
Canadian banks	11.7
Asian and other banks	24.0
Total banks	590.8
Other institutions*	180.0

## Capital raised by banks since mid-2007

Country of origin	Total (US\$ bn)
US	231.4
European	182.8
Canadian	3.8
Asian and other	22.6
Total	440.6

<sup>\* &#</sup>x27;Other institutions' include insurance companies, pension funds and hedge funds. *Sources:* US Mortgage Bankers' Association; IMF; Bloomberg; ANZ Economics & Markets Research.



# The IMF now estimates losses and write-downs will eventually reach US\$1,405 bn, with banks losing US\$950-1,110 bn

## Potential ultimate losses on unsecuritized loans

#### US\$bn Type of loan **Estimated** Outstanding losses Sub-prime 300 50 'Alt-A' 35 600 3 800 85 Prime Commercial real estate 2 400 90 45 Consumer loans 1 400 Corporate loans 3 700 110 Leveraged loans 10 170 **Total** 12 370 425 of which, banks 225-290

#### Potential ultimate mark-tomarket losses on securities

Type of security	US\$bn	
	Out- standing	Estimated losses
ABS	1 100	210
CDOs	400	290
Prime MBS	3 800	80
Commercial MBS	940	160
Consumer ABS	650	0
High-grade corporate	3 000	130
High-yield corporate	600	80
CLOs	350	30
Total	10 840	980
of which, banks		725-820

*Notes:* 'Alt-A' means 'low-doc' or 'no-doc' mortgage loans. ABS = asset-backed securities; CDOs = collateralized debt Obligations; MBS = mortgage-backed securities; CLOs = collateralized loan obligations.

Source: IMF Global Financial Stability Report 7 September 2008, p. 9.



## Investors around the world have lost US\$23.2 trillion since the end of October 2007

#### **Capitalization of world equity markets**

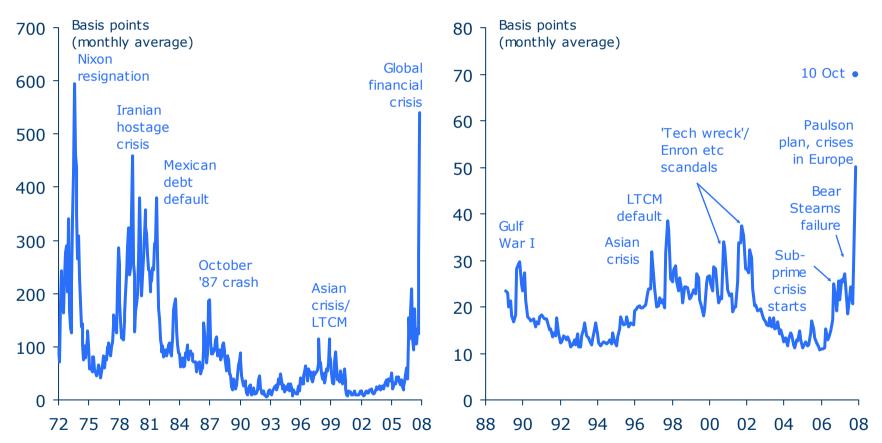


Source: Datastream.

## Indicators of 'fear' in financial markets have reached all-time record highs in recent weeks

'TED' spread between 3-month inter-bank US\$ rates and 3-month US Treasury bill yields

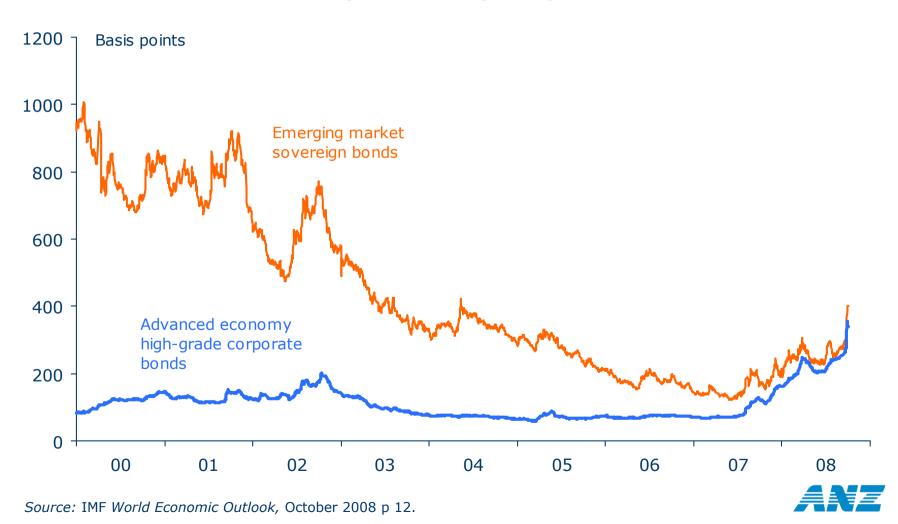
## 'VIX' index of implied volatility of the US S&P 500 share index



Sources: US Federal Reserve; Datastream; ANZ.

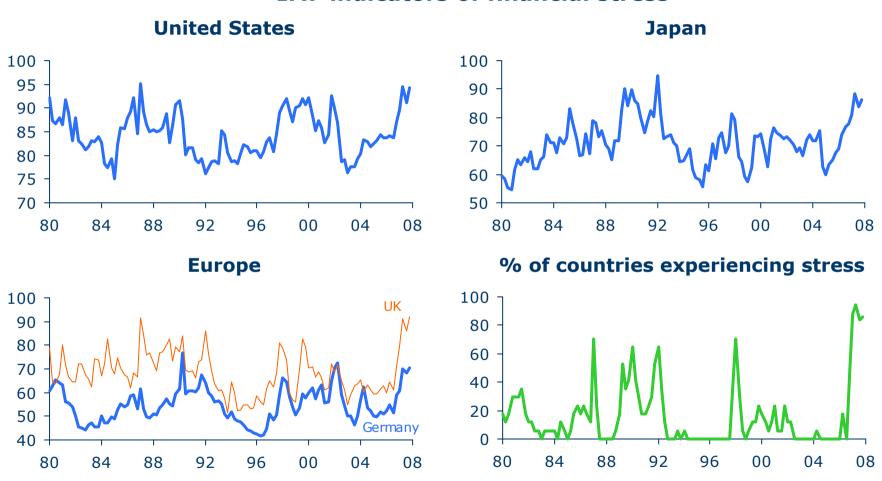


## Emerging market sovereign and high-grade advanced market corporate bond yield spreads



## More comprehensive indicators of financial stress are also at record levels in a record proportion of countries

#### **IMF** indicators of financial stress

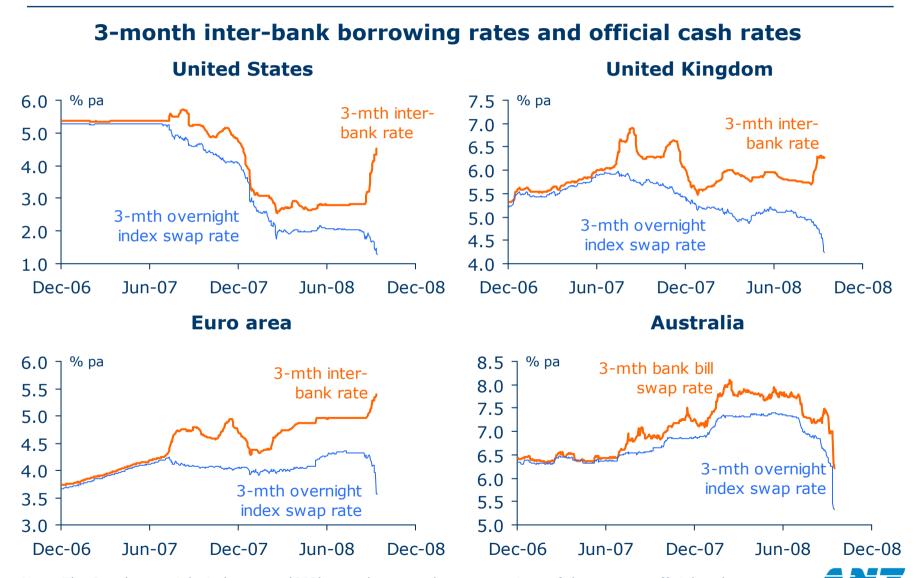


*Note:* financial stress index based on the beta of banking stocks, the 'TED' spread, the slope of the yield curve, corporate bond yield spread, stock market returns, stock market volatility, and effective exchange rate volatility, for seventeen advanced economies.

Source: IMF, World Economic Outlook (October 2008), pp. 134-135.



Erosion of confidence among banks and hoarding of cash has seen wide margins open up between inter-bank & official rates



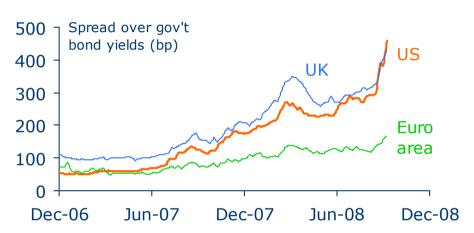
*Note:* The 3-mth overnight index swap (OIS) rate shows market expectations of the average official cash rate over the following three months. *Source:* Bloomberg.

#### Financial market stress has continued and affected the money, swap, bond and share markets

#### Banks' short-term funding costs



#### **Corporate bond yield spreads**



#### Banks' long-term funding costs



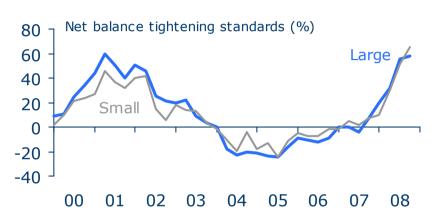
Bank share price relative performance



Note: all data shown as 5-day moving averages. Sources: Bloomberg; Datastream.

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

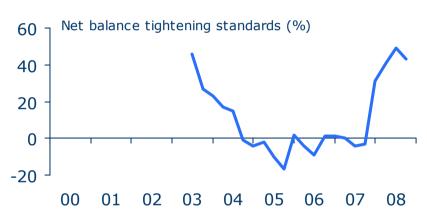
## **US banks Commercial & industrial loans**



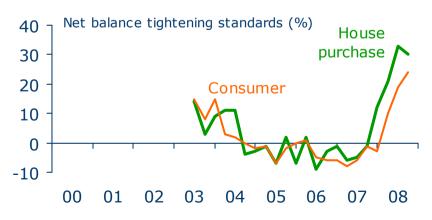
#### **Mortgage and consumer loans**



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



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



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

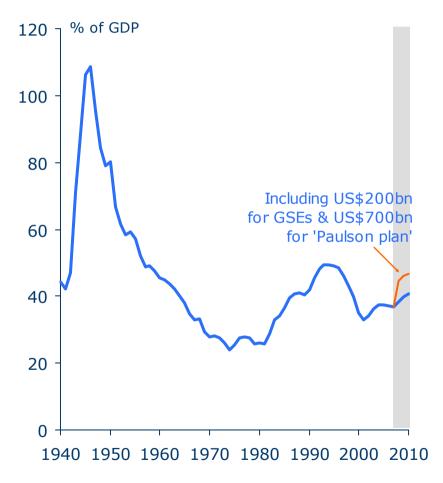


- Emergency liquidity support and 'blanket guarantees' are commonly used crisis containment measures
  - Emergency liquidity support has been used in 71% of crises and blanket guarantees (of deposits) in 29%
- 'Regulatory forbearance' (suspending, or giving institutions time to comply with) prudential requirements has occurred in 67% of crises
- In 86% of cases, large-scale government intervention takes place involving forced bank closures, nationalizations, or assisted mergers
  - 51% of crises have entailed sales of banks to foreigners
- In 76% of crises, banks have been recapitalized by the government
  - the net recapitalization cost to government has averaged 6% of GDP
  - in 48% of crises, recapitalization and/or restructuring has been carried out by a specially established government agency
- Asset management companies have been established to manage distressed assets in 60% of crises
- Total fiscal costs (net of recoveries) associated with crisis management have averaged 13.3% of GDP
- 'A successful bank recapitalization program tends to be selective ... specifies clear quantifiable rules that limit assistance ... an enacts capital regulation that establishes meaningful standards for risk-based capital'
- Such programs typically require public funds, and tend to be most successful when they are well-targeted with adequate safeguards attached'



The amounts being proposed to bail out the US financial system seem huge but won't resulted in unprecedented debt issuance

#### **US Federal government debt**



Sources: US Congressional Budget Office; ANZ Economics & Markets Research calculations.

- The cost to the US Treasury of the measures announced or proposed in response to the financial crisis is of the order of US\$900bn or about 6¼ % of GDP
  - up to US\$200bn for the two GSEs (Fannie Mae & Freddie Mac)
  - US\$700bn for the 'Troubled Assets Recovery Plan' (TRAP) proposed by Treasury Secretary Paulson
  - note the \$80bn AIG loan (and the \$30bn to JP Morgan for Bear Stearns) are on the Fed's balance sheet
- Borrowing US\$900bn would boost US federal debt to about 45% of GDP less than it was in the early 1990s (after the S&L bail-out) and less than it was during the 1940s through the mid-1960s
- Given the appetite for government paper, the Treasury would have no difficulty borrowing this amount in recent days interest rates on US government debt have been at near-record lows

Many indicators suggest that the US economy is heading for, or already in, recession

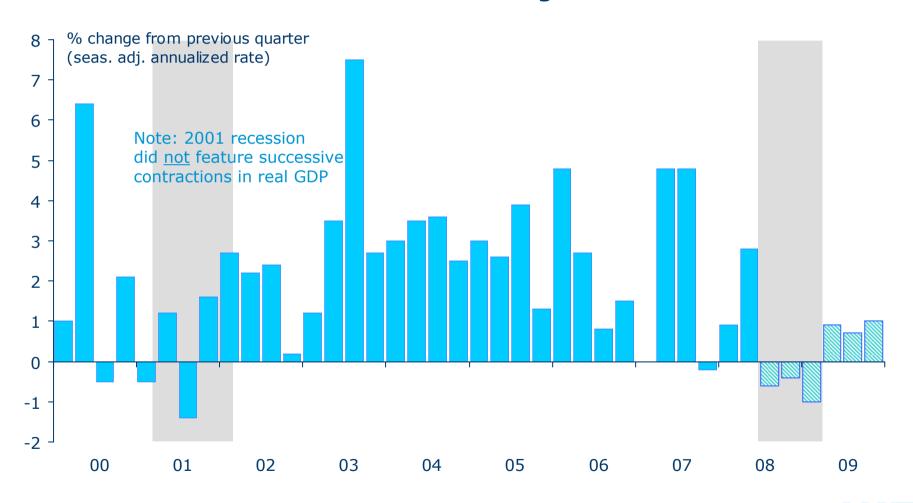
#### **Selected US indicators**



*Note:* shaded periods denote recessions as designated by National Bureau of Economic Research. *Sources:* The Conference Board; Bureau of Labor Statistics; Census Bureau.



#### **US real GDP growth**



*Source:* US Bureau of Economic Analysis. Shaded area denotes 2001 recession as designated by National Bureau of Economic Research.



The four key indicators used to delineate recession in the US have not yet turned down sharply as in previous recessions

#### NBER's key recession gauges since Sep 2007 cf. previous recessions

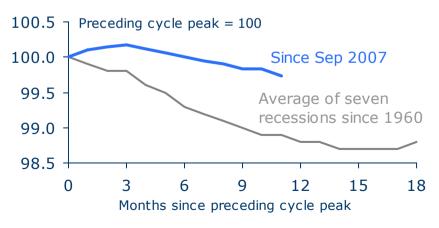
#### **Real personal income less transfers**

# 100.5 Preceding cycle peak = 100 Average of seven recessions since 1960 99.5 99.0 Since Sep 2007 98.5 Months since preceding cycle peak

#### **Industrial production**



#### **Employment**



#### **Real business sales**



Sources: US Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve Board; Commerce Department; ANZ Economics & Markets Research.



#### The US non-financial corporate sector isn't under the sort of pressures that typically precipitate recessions

#### **US** non-financial corporate sector

#### **Corporate profits**



#### **Interest cover**



#### **Corporate debt-equity ratio**





Non-farm stocks-to-sales ratio



Note: Shaded areas denote recessions as defined by the National Bureau of Economic Research.

Sources: Commerce Department; Federal Reserve Board; ANZ.



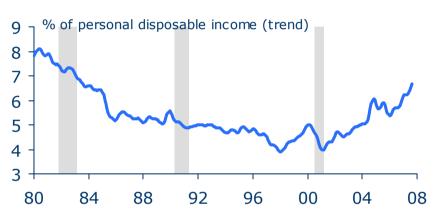
However US household finances are under considerably greater <sup>21</sup> financial pressure than ever before

#### **US** household sector finances

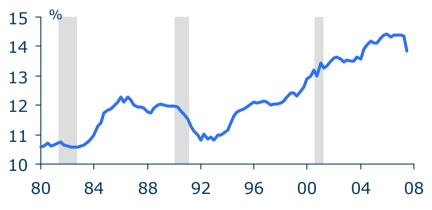
#### **Household net worth**



#### Household spending on energy



#### Household debt service ratio



#### Personal saving rate



Note: Shaded areas denote recessions as defined by the National Bureau of Economic Research. Sources: Commerce Department; Federal Reserve Board; 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

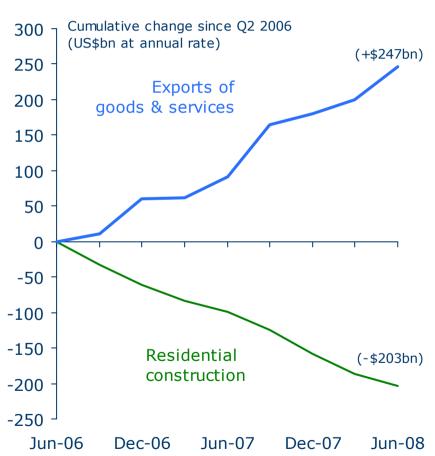
#### **Exports of goods and services**



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



#### **Exports and housing**

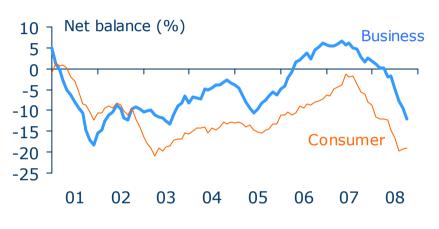


Sources: Thomson Financial; US Bureau of Economic Analysis; ANZ.

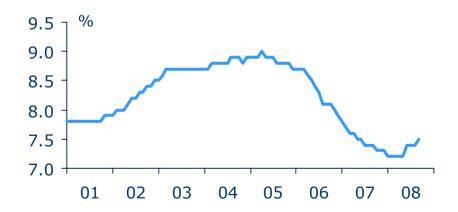


# European economies are also experiencing an economic downturn with falling house prices and rising unemployment

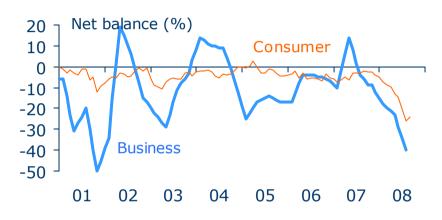




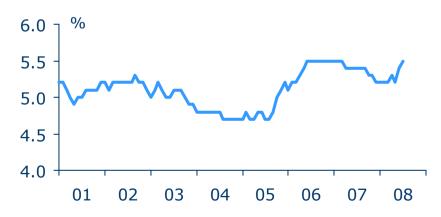
**Unemployment** 



UK
Business & consumer confidence



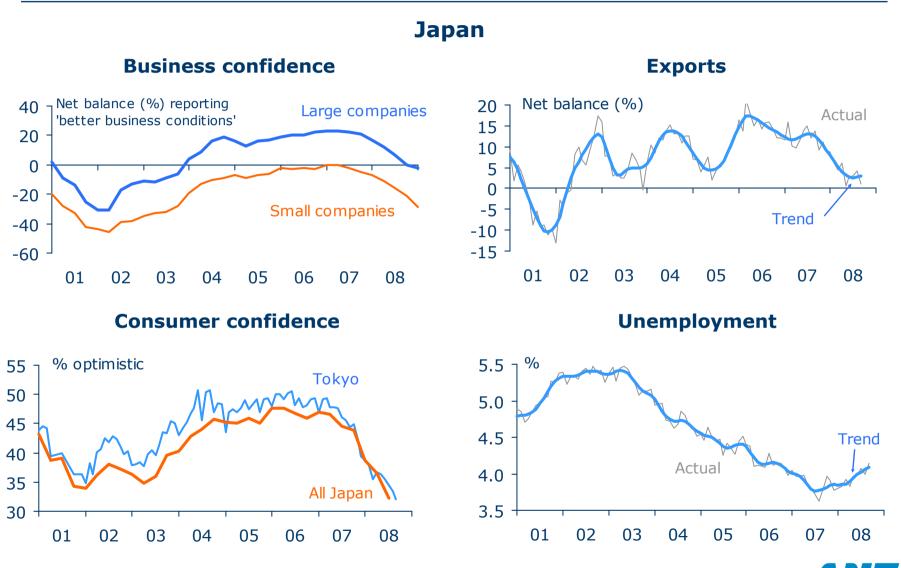
**Unemployment** 



Sources: European Commission; Eurostat; Confederation of British Industry; UK Office of National Statistics (note UK unemployment measure based on claimant count).



# Japan's economy has slowed sharply even though its banks have very little exposure to the global credit crisis



Sources: European Commission; Eurostat; Bank of Japan; Japan Economic & Social Research Institute; Japan Home Ministry.

# Although higher oil and food prices are pushing up headline inflation, 'core' inflation remains little changed in G7 countries

#### **Consumer prices**

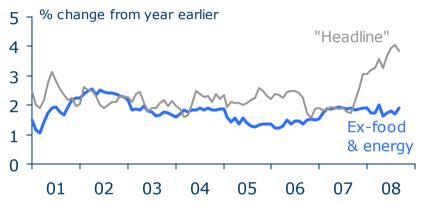
#### **United States**

#### % change from year earlier "Headline" 5 4 3 2 Ex-food & energy 0 02 05 08 01 03 04 06 07 **Japan**

# 3 % change from year earlier 2 "Headline" 1 0 -1 Ex-food & energy -2 01 02 03 04 05 06 07 08

#### Sources: US Bureau of Labor Statistics; Eurostat; OECD.

#### **Euro** area



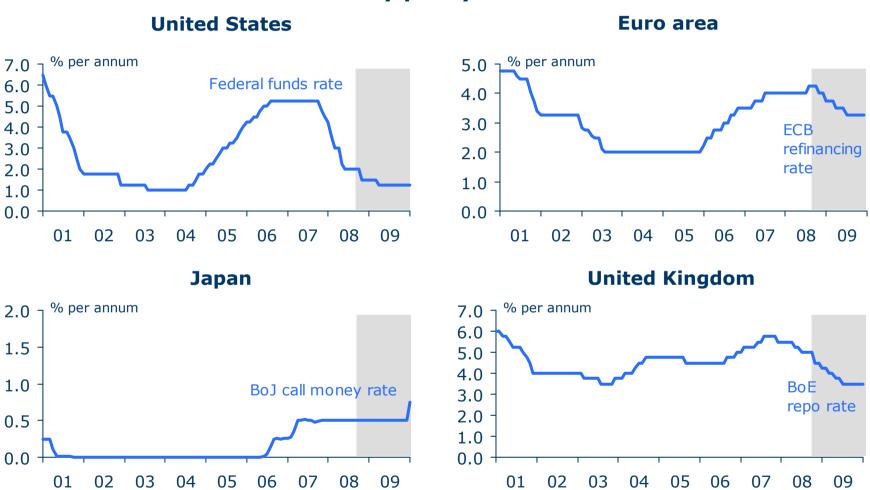
#### **United Kingdom**





Inflation concerns of some central banks will give way to concerns to minimize downside risks to growth

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



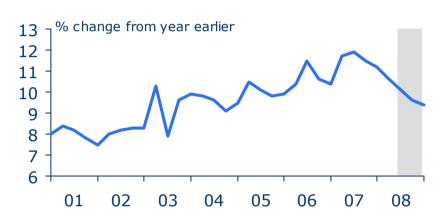
Sources: US Bureau of Labor Statistics; Eurostat; OECD.



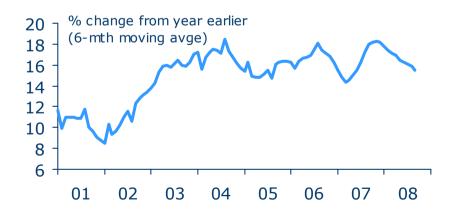
# China's economy appears to be slowing somewhat, reflecting slower export growth and the impact of higher inflation

#### **Chinese economic indicators**

#### **Real GDP growth**



#### **Industrial production**



Source: China National Statistics Bureau.

#### **Exports**

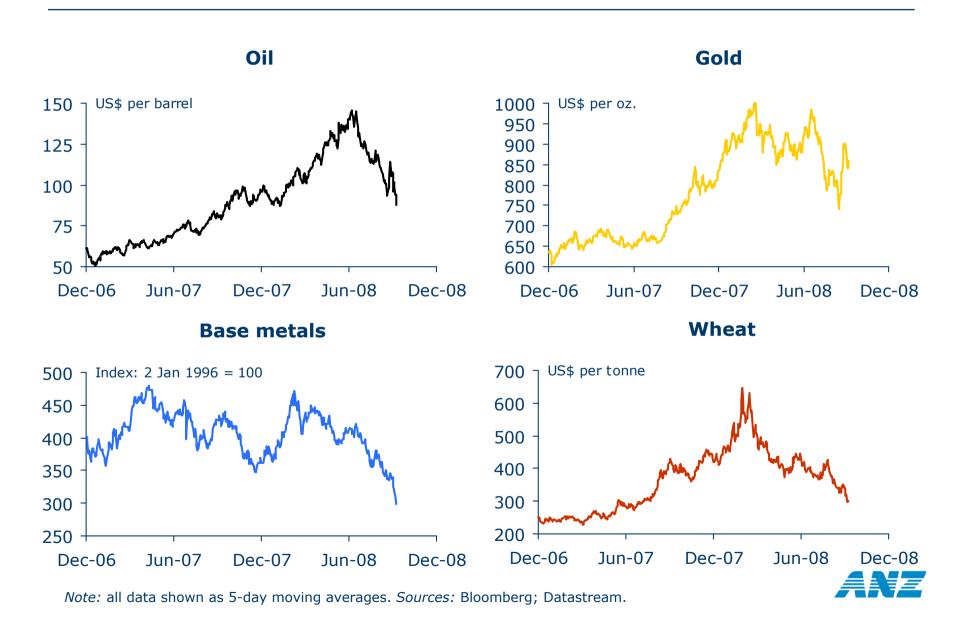


#### **Retail sales**



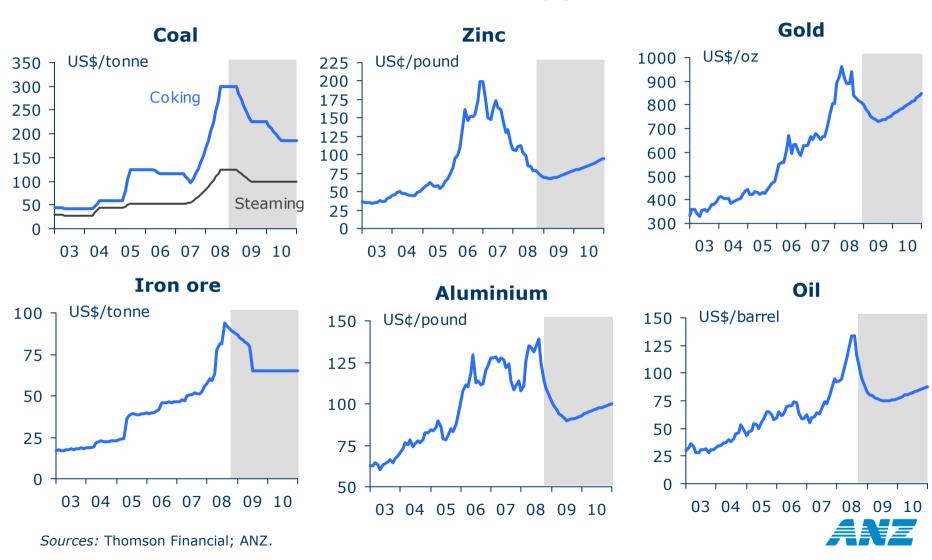


## Commodity prices (other than gold) have fallen reflecting declining demand and a stronger US dollar



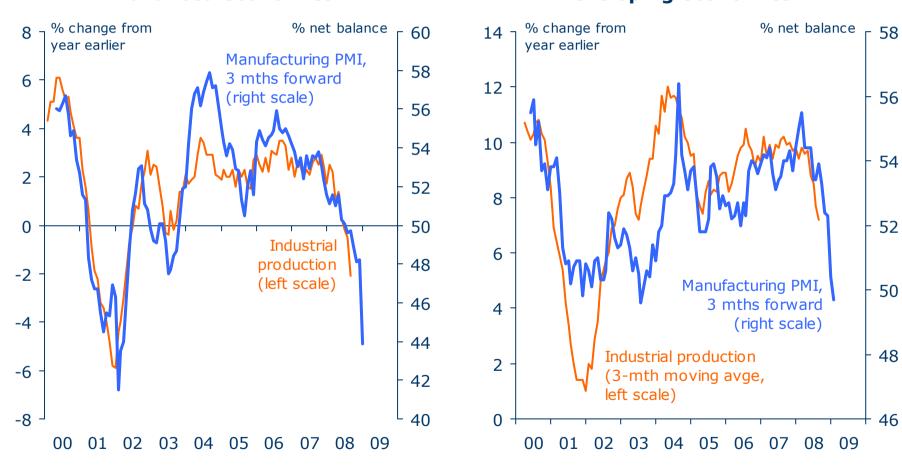
# Commodity prices will fall further over the next 6-12 months though should remain strong by historical standards

#### **Resource commodity prices**



#### Industrial production is declining in Western countries and also set to slow sharply in developing and emerging economies

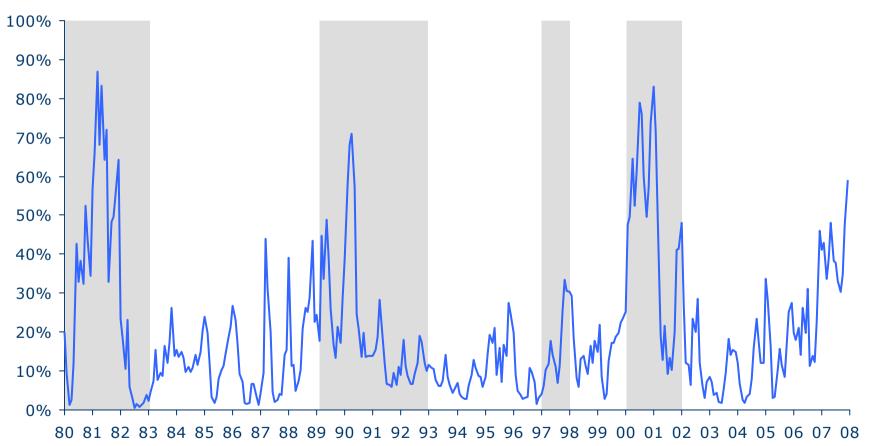
# Manufacturing purchasing indices (PMIs) and industrial production Advanced economies Developing economies





#### Industrial production is declining in Western countries and also set to slow sharply in developing and emerging economies

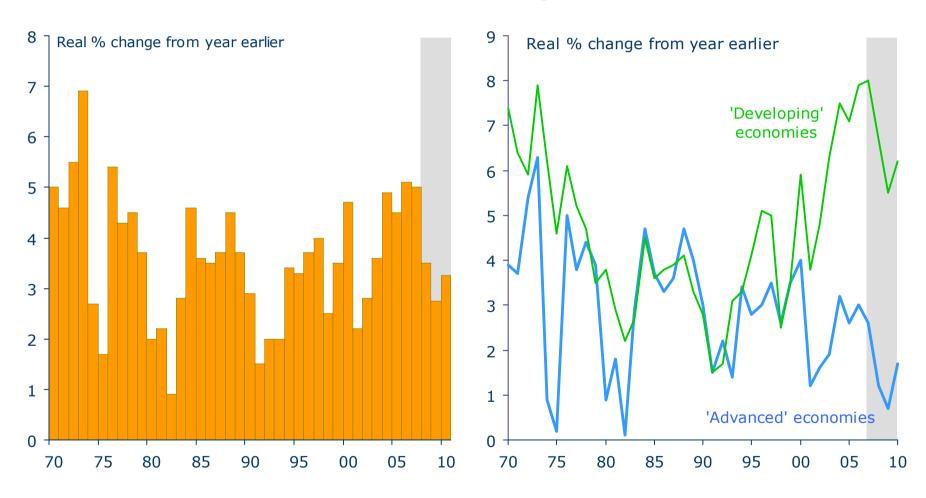
## Probability of global recession (based on a combination of financial and cyclical variables)



Note: Probability measure based on slope of the US yield curve and S&P 500 returns, US industrial production and the IMF metal price index. Shaded areas denote 'global recessions' as designated by the IMF based on global industrial Production. Sources: IMF World Economic Outlook October 2008 p. 44.

# Global growth will weaken sharply with 2009 looking like the worst year for 'advanced' economies since 1982

#### **Global economic growth**

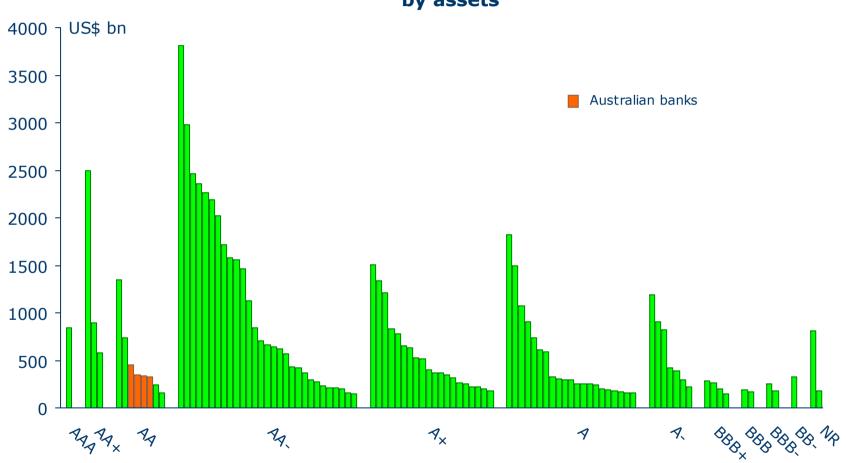


Note: GDP is measured in US\$ at purchasing power parities.

Source: IMF World Economic Outlook October 2008; ANZ Economics & Markets Research.



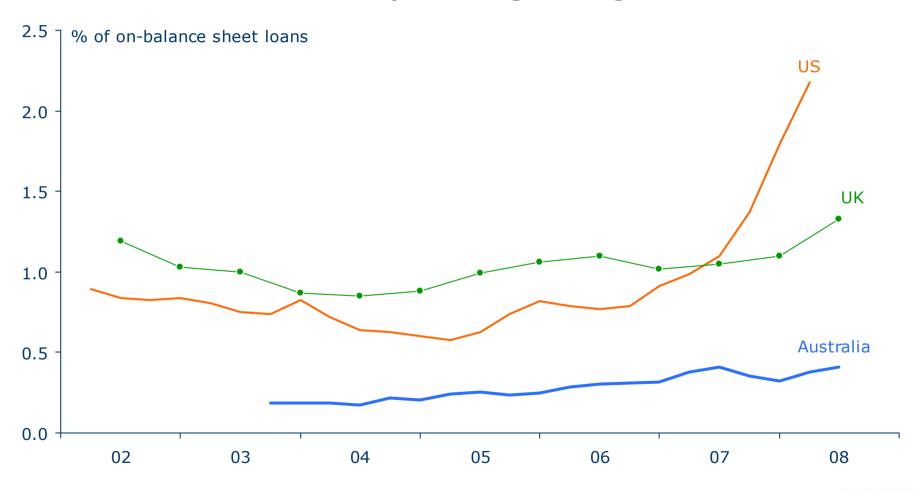
## Credit ratings of the world's largest 100 banks by assets



Source: The Banker magazine.



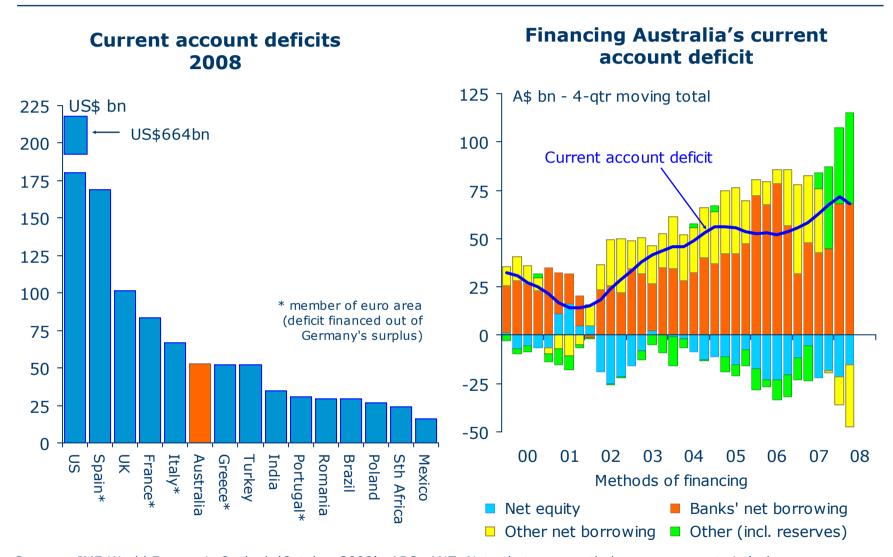
#### Banks' non-performing housing loans



Source: Philip Lowe, The Financial System and Recent Developments in the Australian Financial System, Speech to 6<sup>th</sup> Annual Retail Financial Services Forum, 13<sup>th</sup> August 2008; APRA; UK Council of Mortgage Lenders; US FDIC.



#### But Australia is exposed to the global credit crunch because of our large external deficit and the way we finance it



Sources: IMF World Economic Outlook (October 2008); ABS; ANZ. Note that apparently large movements in 'other (incl. reserves) in 2007-08 largely reflect the withdrawal of cash deposits at the RBA by the Future Fund; the RBA had invested these largely in US Treasuries, and they were reported as part of the RBA's official reserve assets.

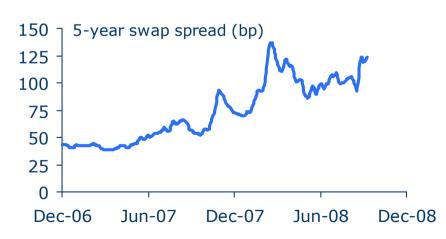


## Australian banks and financial markets have come under similar pressures to their overseas counterparts

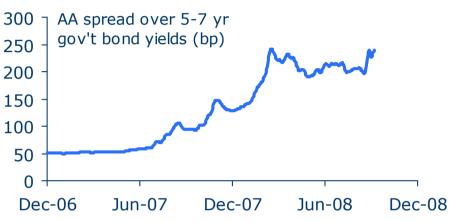
## Banks' short-term funding costs



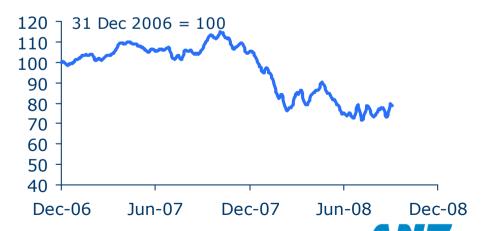
Banks' long-term funding costs



#### **Corporate bond yield spreads**



**Bank share prices** 

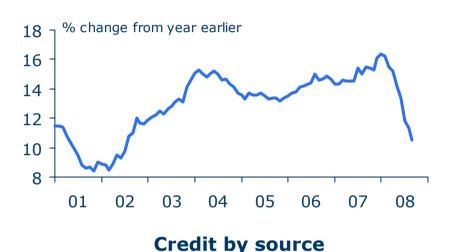


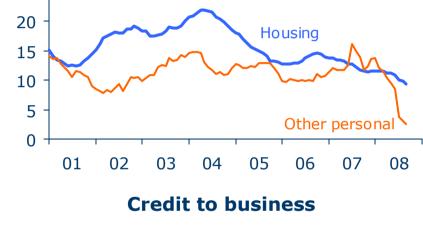
Note: all data shown as 5-day moving averages. Sources: Bloomberg; Datastream.

The 'credit crunch' plus the effect of higher interest rates on credit demand has led to a sharp slowdown in credit growth

# Credit provided to the Australian private sector Total credit Credit to households

25





% change from year earlier





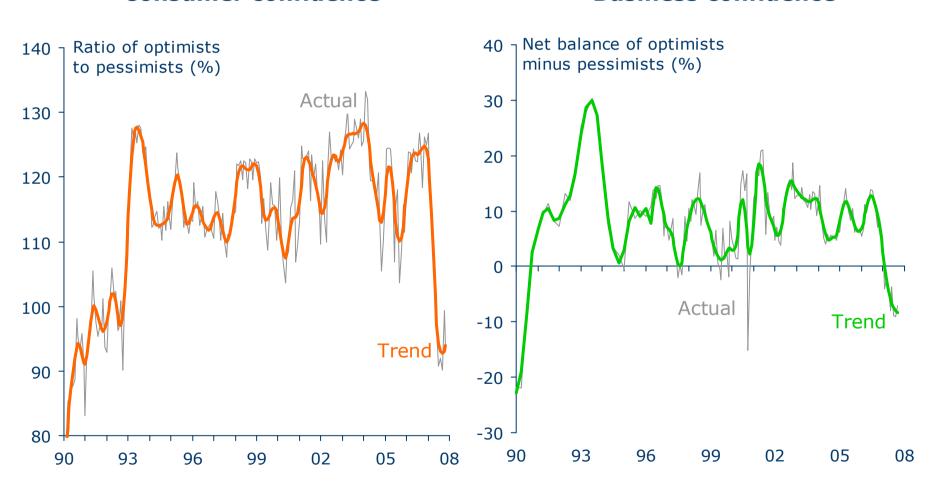
Source: Reserve Bank of Australia.



# Consumer and business confidence have fallen sharply this year <sup>38</sup> although both now seem to be stabilizing

# **Consumer confidence**

### **Business confidence**

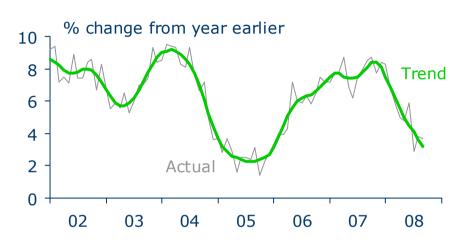


Sources: Roy Morgan Research; nab; ANZ

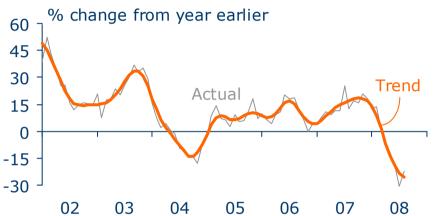


# Household spending and borrowing, and housing activity, have both slowed sharply over the past six months

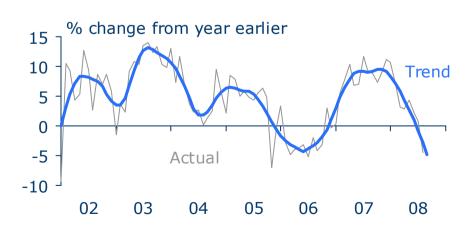
### **Retail sales**



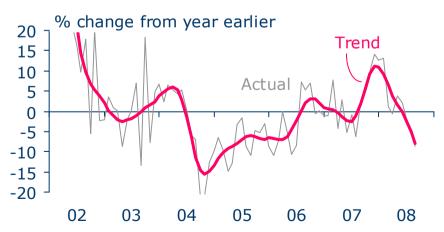
**Housing finance commitments** 



### **Motor vehicle sales**



# **Residential building approvals**



Sources: ABS; ANZ Economics & Markets Research.

# Capital spending and exports remain strong – although some planned capital spending may not proceed

# **Exports, profits and capital spending**

### **Exports**

# Real % change from year earlier Other excl. rural Resources -8

# Company profits

05

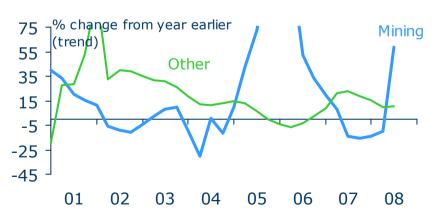
07

08

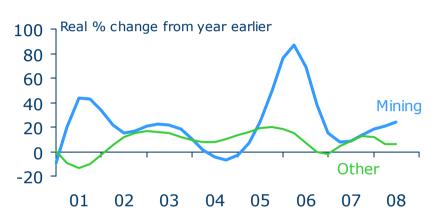
01

02

03



# **Capital expenditures**



### **Capex intentions estimates for 2008-09**



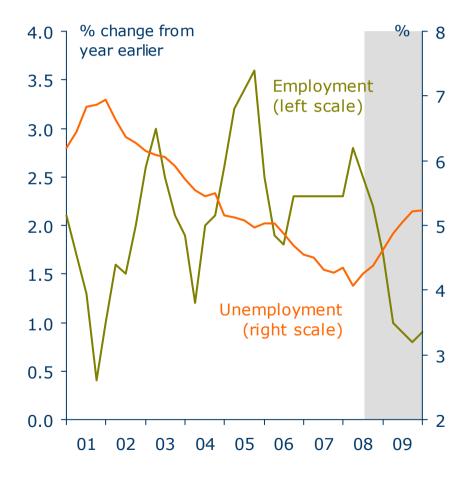
*Note:* Capex intentions estimates refers to surveys conducted by ABS in Jan-Feb (1<sup>st</sup>), Apr-May (2<sup>nd</sup>) and Jul-Aug (3<sup>rd</sup>) 2008, adjusted for the extent to which these intentions have been 'realized', on average, over the past five years. *Sources:* ABS; ANZ.



# **Spending and output**

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

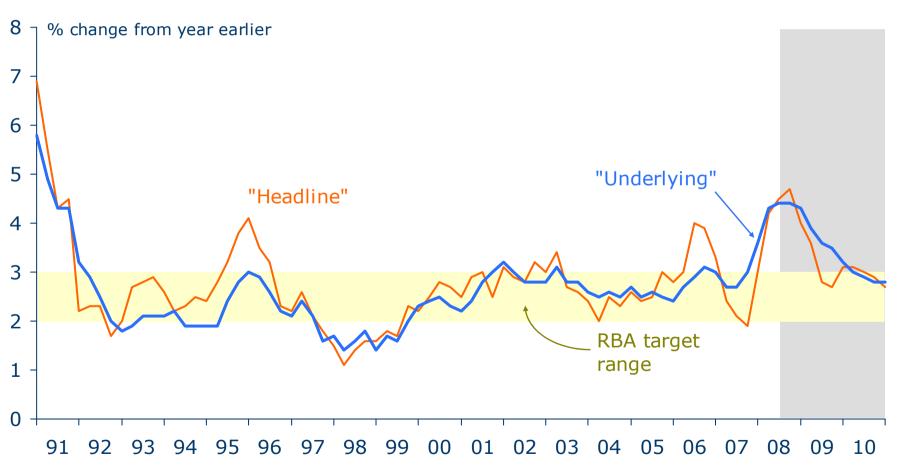
# **Employment and unemployment**



Sources: Australian Bureau of Statistics; ANZ.



# **Consumer prices**



*Note:* excludes impact of introduction of GST and major health policy changes and proposed commencement of emissions trading scheme in mid-2010. *Sources:* ABS; RBA; ANZ.



# Unlike the United States, Australia has a large and growing shortage of housing

# 'Underlying' housing demand vs additions to the housing stock

200 <sub>7</sub> '000 units

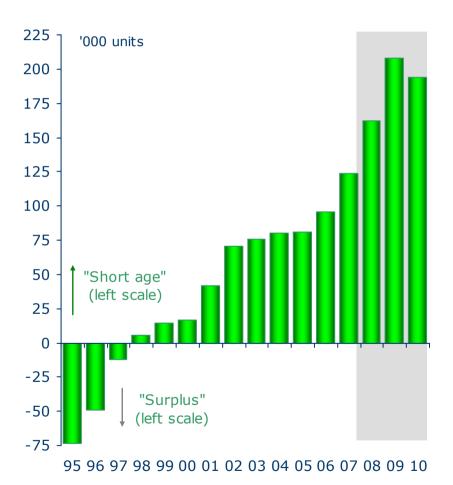
110

100

# 190 - Underlying demand (right scale) 180 - 170 - 160 - 150 - 140 - 130 - Completions (right scale) 120 - 120 - Completions (right scale)

95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10

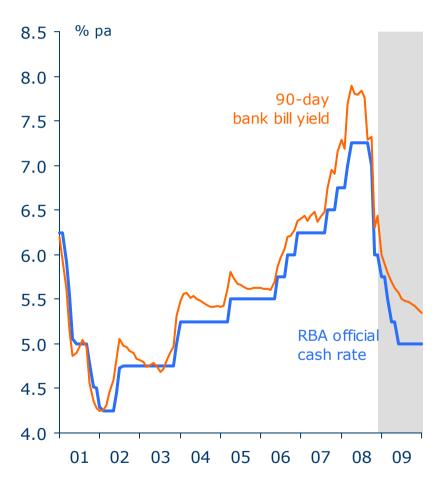
# Household 'market balance'



*Note:* 'Underlying demand' based on projections of population growth and household formation. 'Surplus' or 'shortage' is the cumulative difference between completions and underlying demand from an historical starting point. The direction of movements in this measure is more significant than the level. *Sources:* ABS; ANZ.



# **Short-term interest rates**

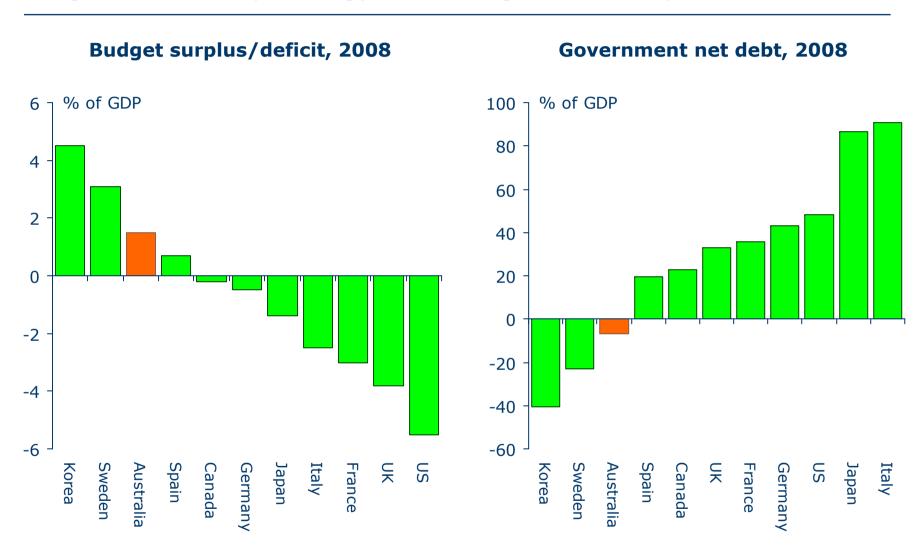


- In a bold, decisive move, the RBA cut the official cash rate by 100bp – because it could (unlike most other central banks) and because it felt it needed to
- The RBA has brought forward rate cuts that would have occurred more gradually over the next 3-9 months, had it not been for the rapid deterioration in the global economic outlook in recent weeks
- Given the upward pressure on banks' funding costs, the RBA decided that a large cut in the cash rate was needed to ensure a meaningful reduction in the rates which end-borrowers are actually paying
- This week's move is <u>not</u> intended to raise expectations that there will be further large rate cuts any time soon – although there is scope for that if it is needed
- The cash rate will likely fall to 5% by the June quarter next year

Sources: Thomson Financial; ANZ.



# Australia is also very well-placed to use fiscal policy (tax cuts and government spending) to boost growth if required



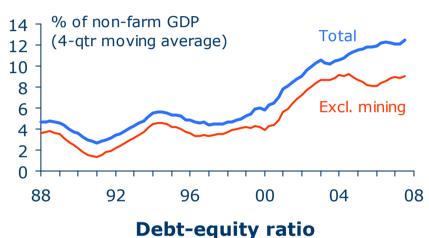
*Note:* data shown are for the 'general government' sector, ie including State and local governments but excluding government business enterprises. *Source:* OECD, *Economic Outlook* 83, June 2008,



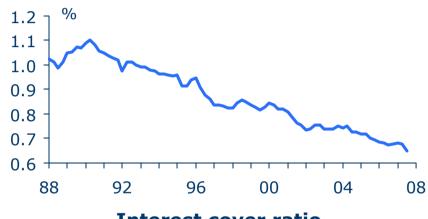
The corporate sector is (in general) in a strong financial position and shouldn't need to cut labour costs aggressively

# **Australian non-financial corporate sector finances**

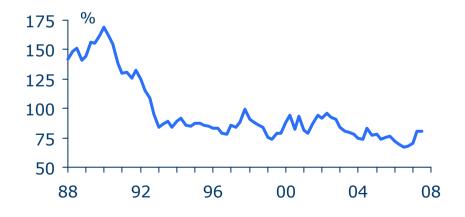
### **Pre-tax company profits**

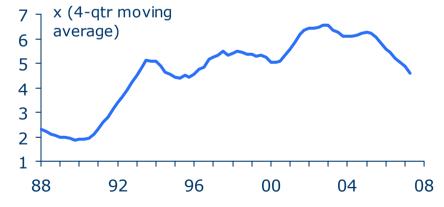


# **Inventory-sales ratio**



**Interest cover ratio** 



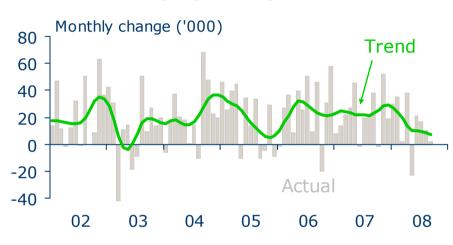


Sources: Australian Bureau of Statistics; Reserve Bank of Australia; ANZ.

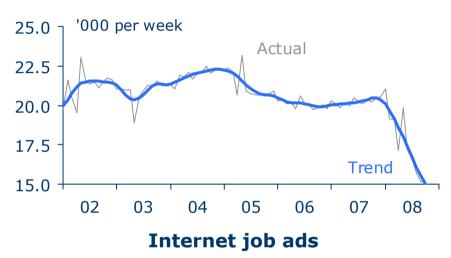


# Employment growth is easing and the unemployment rate has clearly bottomed but the labour market isn't falling apart

# **Employment growth**

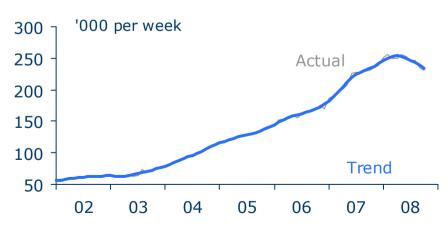


# Newspaper job ads



**Unemployment rate** 





Sources: ABS; ANZ Economics & Markets Research.

# Overall, Australian household balance sheets don't look unduly stressed despite the rapid increase in household debt

### **Australian household finances**

### **Household debt**

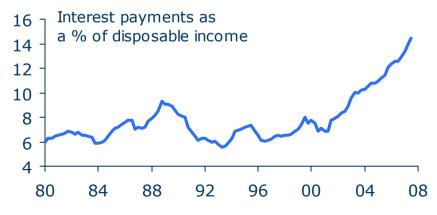
### % of annual household disposable income Household net worth

### 

# Household 'gearing ratio'

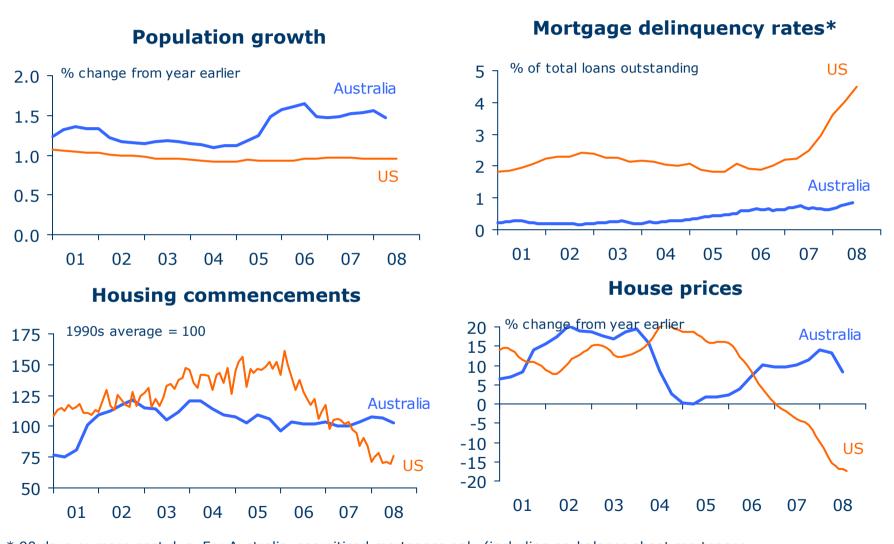


Interest-to-income ratio



Sources: Reserve Bank of Australia; ANZ.

# Australia's housing market has clearly softened but is unlikely to become as dire as America's



<sup>\* 90</sup> days or more past due. For Australia, securitized mortgages only (including on-balance sheet mortgages would result in a lower figure). *Sources:* ABS; US Commerce Department; S&P; Mortgage Bankers' Association of America.



# Mortgage delinquency rates

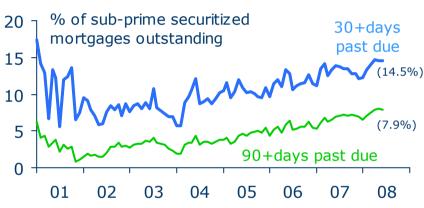
# Prime securitized mortgages 30 days + past due, by lender





### Source: S&P.

# Sub-prime securitized mortgages 30 days + past due

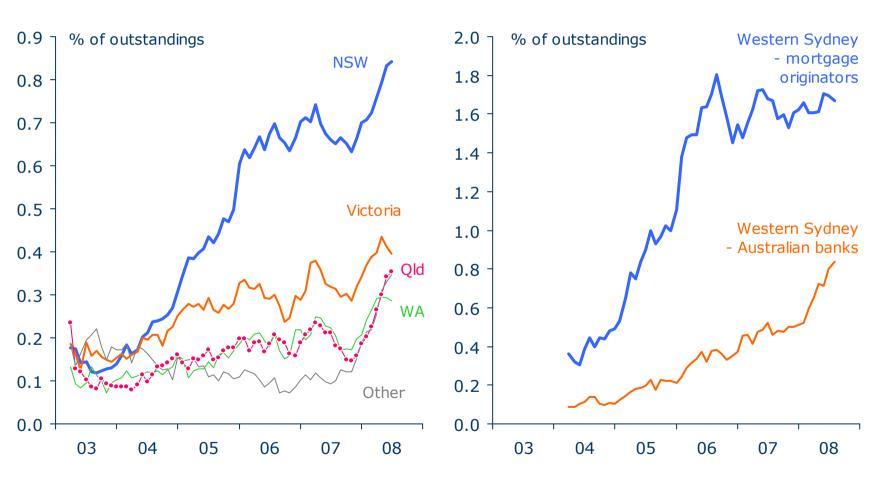


Sub-prime mortgages as a pc of total mortgages



# Mortgage delinquencies are concentrated in New South Wales, and especially in Western Sydney

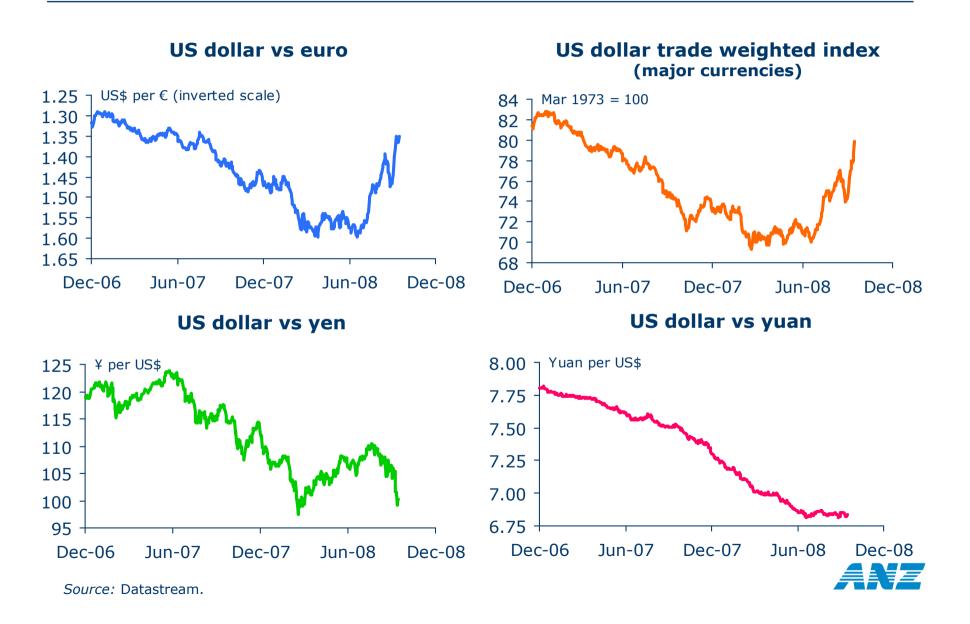
# Prime securitized mortgages 90 days + past due



Sources: Perpetual; S&P; Reserve Bank of Australia (Financial Stability Review September 2008).

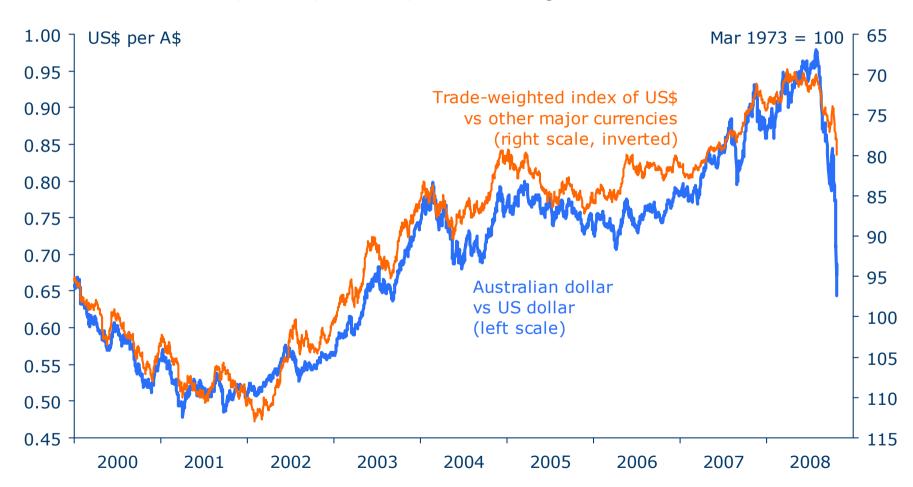


# The US\$ has risen against most currencies (other than the yen) in recent weeks because banks are hoarding dollars



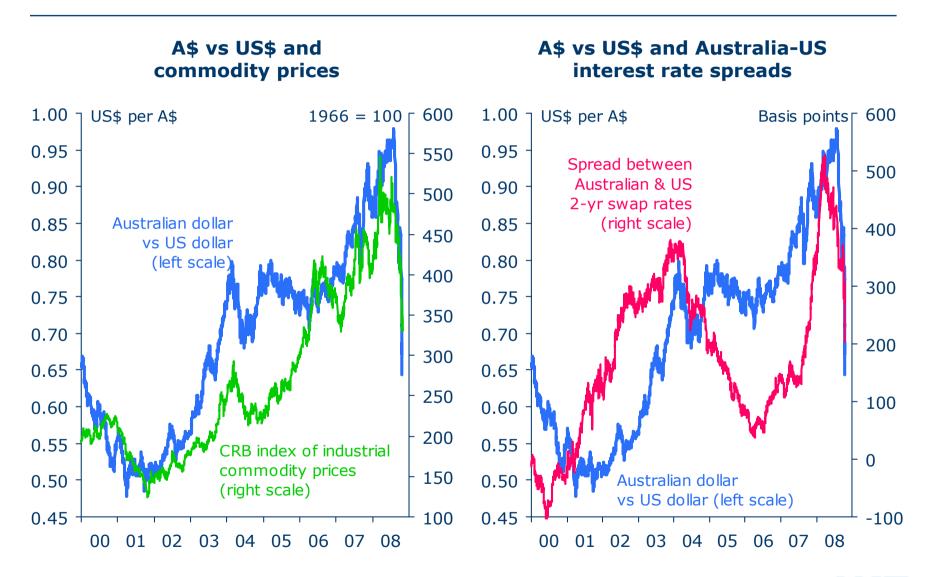
The recent sharp drop in the A\$ is partly a reflection of the rebound in the US\$ ...

# A\$ vs US\$ and US\$ vs other major currencies





# The A\$'s decline also reflects the turnaround in commodity prices and expectations regarding Australian interest rates





# A\$ likely to mirror US\$ fluctuations in the near term but to trend 55 towards the low US70's over the next two years

# A\$ vs US\$



- In the near term, A\$ likely to trade in a US80-86¢ range mirroring fluctuations in the US\$ against other major currencies
  - a slump in the US\$ triggered by renewed financial strains (or uncertainty as to how they will be dealt with) could see the A\$ closer to US90¢ again
- Beyond the near term, the A\$ is likely to be pulled down by two factors:
  - a narrowing of the interest rate spread between Australia and the US (from ~450bp at 90 days currently to less than 200bp by mid-2010)
  - declining commodity prices (we expect a drop of ~10-15% in the RBA index in US\$ terms by mid-2010)
- These considerations point to the A\$ declining to ~US66¢ by mid-2010 (and to ~55 on the RBA's trade-weighted index)



Sources: Thomson Financial; ANZ.

# Summary

- The world is confronting an extremely serious financial crisis
  - it is no longer a 'sub-prime mortgage crisis', or even solely a US financial crisis, but a global financial crisis
- There is now a high probability that a global recession is under way, with growth in the world economy falling below 3% next year
  - industrial country growth is likely to average less than 1% in 2009, the weakest since 1982
  - developing country growth will slow to about 5½%, from 7-8% pa during the past four years
- Australia's economy is also slowing significantly, although the odds are good that Australia will avoid outright recession
  - provided Australia can continue to finance its current account deficit in an orderly way, economic growth is unlikely to turn negative
  - Australia's financial system is more robust than that of most other Western countries
  - Australia will continue to benefit from developing country growth, albeit less so than previously expected
  - Australia has more scope to deploy economic policy instruments to support growth
- The Australian housing boom is obviously over, turnover has fallen sharply and prices are declining in some areas across the country
  - however given the underlying shortage of housing in Australia, and the very low level of 'forced sales', substantial declines in Australian house prices are quite unlikely
- The RBA cash rate will fall to 5% by the June quarter of next year
- The A\$ may 'bounce' against the US\$ near-term, but the mediumterm trend is down into the US60's



# Global forecast summary

	Real GDP growth (%)				
	2007	2008	2009	2010	
United States	2.0	13/4	1/2	13/4	
Euro area	2.6	1	3/4	11/2	
Japan	2.0	1/2	3/4	13/4	
China	11.6	93/4	8	9	
Other East Asia	5.9	5	41/2	51/2	
India	9.0	8	7	73/4	
World	4.7	31/2	23/4	31/2	

	Financial market forecasts				
	Sep 08	Dec 08	Jun 09	Dec 09	Jun 10
US Fed funds rate	2.00	1.50	1.25	1.25	2.00
ECB refi rate	4.25	4.25	4.00	3.50	3.50
US 10 year T-note yield	3.65	3.35	3.45	3.75	4.10
US\$-¥	107	105	107	111	117
€-US\$	1.41	1.39	1.33	1.27	1.20
US\$-Yuan	6.84	6.95	6.95	6.85	6.75
Gold price (US\$ / oz)	740	800	780	820	760



# Australian forecast summary

	Economic forecasts				
	2006-07	2007-08	2008-09	2009-10	
Real GDP growth (%) - Australia	3.3	3.7	13/4	3	
Employment growth (%)	2.7	2.6	11/2	1	
Unemployment rate (year end, %)	4.3	4.3	5	51/2	
'Underlying' inflation (year end, %)	2.1	4.4	33/4	3	
Housing starts ('000)	152	157	138	155	
Current account balance (\$bn)	-59.0	-68.4	-42	-49	
Household saving rate (%)	0.3	0.8	43/4	81/4	

	Financial market forecasts				
	Sep 08	Dec 08	Jun 09	Dec 09	Jun 10
RBA cash rate (% pa)	7.00	5.75	5.00	5.00	5.00
90-day bill yield (% pa)	7.30	6.00	5.50	5.35	5.20
3-year swap rate (% pa)	6.30	5.70	5.50	5.40	5.40
10-year bond yield (% pa)	5.68	5.20	5.25	5.55	5.60
A\$-US\$	0.81	0.77	0.73	0.69	0.66
A\$-¥	87	81	78	76	77
A\$-€	0.57	0.55	0.55	0.54	0.55



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