

# Economics, interest rates and currencies chart pack

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## Charts prepared for ANZ Senior Management

24<sup>th</sup> August 2007

[www.anz.com/go/economics](http://www.anz.com/go/economics)

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*economics@*

## Summary of key economic forecasts

	2006	2007	2008
Oil prices (US\$ per barrel WTI)	63	67	66
World GDP growth (%)	5.2	5	4¾
Australian GDP growth (%)	2.7	4 <sup>r</sup>	4¼ <sup>r</sup>
Australian unemployment rate (%) <sup>a</sup>	4.6	4½	4 <sup>r</sup>
Australian CPI inflation (%) <sup>a</sup>	3.3	2¾ <sup>r</sup>	2¾ <sup>r</sup>
Aust. current account deficit (% GDP)	5.5	6¼ <sup>r</sup>	6¼ <sup>r</sup>
Australian credit growth (%) <sup>a</sup>	14.4	15 <sup>r</sup>	12 <sup>r</sup>
NZ GDP growth (%)	1.5	2¼	1¼
NZ unemployment rate (%) <sup>a</sup>	3.7	4	4¼
NZ CPI inflation (%) <sup>a</sup>	2.6	2¾	2¾
NZ current account deficit (% GDP)	9	7½	7¼
NZ private sector credit growth (%) <sup>a</sup>	13.2	12¼	9

<sup>a</sup> Year to December quarter; all other forecasts are calendar year-average. <sup>r</sup> Revised since last quarter; see slide 4.

# Summary of key market forecasts

	Aug* 2007	Dec 2007	Jun 2008	Dec 2008	Dec 2009
US Fed funds rate (% pa)	5.25	5.00 <sup>r</sup>	5.00	5.00	5.75
US 10-year bond yield (% pa)	4.60	4.35 <sup>r</sup>	4.60 <sup>r</sup>	5.35 <sup>r</sup>	5.60 <sup>r</sup>
€ - US\$	1.37	1.39 <sup>r</sup>	1.35	1.31	1.20
US\$ - ¥	115	118 <sup>r</sup>	120	119	113
US\$ - Yuan	7.60	7.40 <sup>r</sup>	7.25 <sup>r</sup>	7.04 <sup>r</sup>	7.10
RBA cash rate (% pa)	6.50	6.50	6.75	6.75	6.75
Australian 10-year bond (% pa)	5.85	5.70 <sup>r</sup>	6.05 <sup>r</sup>	6.25	6.35
A\$ - US\$	0.81	0.82 <sup>r</sup>	0.82 <sup>r</sup>	0.79 <sup>r</sup>	0.73
RBNZ cash rate (% pa)	8.25	8.25 <sup>r</sup>	7.50 <sup>r</sup>	7.50 <sup>r</sup>	6.50
NZ 10-year bond yield (% pa)	6.30	6.40 <sup>r</sup>	6.70 <sup>r</sup>	6.80 <sup>r</sup>	6.90
NZ\$ - US\$	0.69	0.68 <sup>r</sup>	0.62 <sup>r</sup>	0.61 <sup>r</sup>	0.58
A\$ - NZ\$	1.15	1.21	1.31	1.28	1.24

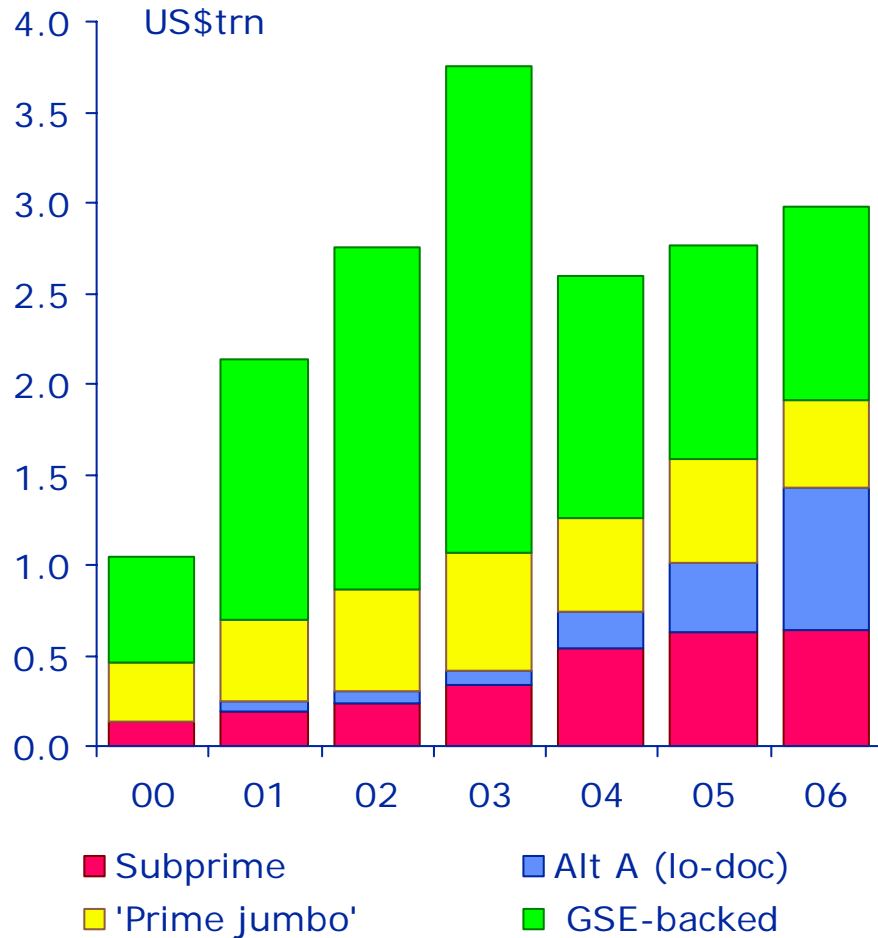
\* actual <sup>r</sup> revised

## Key forecast themes

- Financial market turmoil significantly alters short-term interest rate and currency outlook but medium-term economic prospects not significantly revised (as yet)
  - this view crucially assumes that central bank actions (including at least one cut in the US Fed funds rate) succeed in stabilizing markets and re-starting normal credit flows (although more speculative activity is likely to remain muted for some time)
  - US economic growth is likely to be weaker this half (and thus just under 2% for 2007 as a whole) but growth in other major regions thus far expected to be only marginally affected
- In addition to cut next month in US Fed funds rate, ECB and BoJ assumed to defer rate hikes previously expected next month
  - but on the assumption that markets do stabilize and normal credit flows resume, further modest rate increases can be expected in 2008 – and by the Fed in 2009
  - A\$ and NZ\$ unlikely to regain pre-‘crunch’ levels
- Australian economic growth expected to remain strong
  - no sustained fall-out from domestic credit events or housing sector: RBA to remain ‘on hold’ for balance of 2008 but likely to raise rates again in early 2008
- NZ cycle is turning as tighter monetary policy ‘bites’, especially in the housing sector
  - RBNZ to start cutting rates next year

# The 'credit crunch' has its origins in the surge in sub-prime mortgage lending in 2005-06

## US mortgage originations



*Note:* 'Prime jumbo' mortgages are over the \$475 ceiling for mortgage insurance; 'GSE-backed' mortgages are those insured by FNMA, FMHC or FHA/VA. *Source:* IMF.

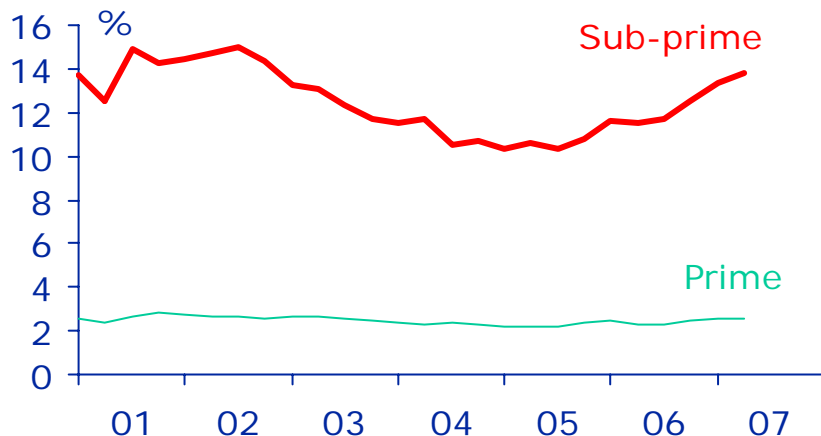
- By 2006, more than half of US mortgage originations were 'non-conforming'
- The big surge in these categories of mortgage lending came after US rates had begun rising and house prices had peaked
- A much higher than usual proportion of these non-conforming loans were at low 'teaser' rates subsequently re-setting at variable rates, many with 'affordability options' allowing deferral and capitalization of interest payments
- There appears to have been a large element of fraud and/or predatory lending in these loans

# Higher interest rates and flat/falling house prices have triggered a wave of defaults

## House prices



## Mortgage delinquencies

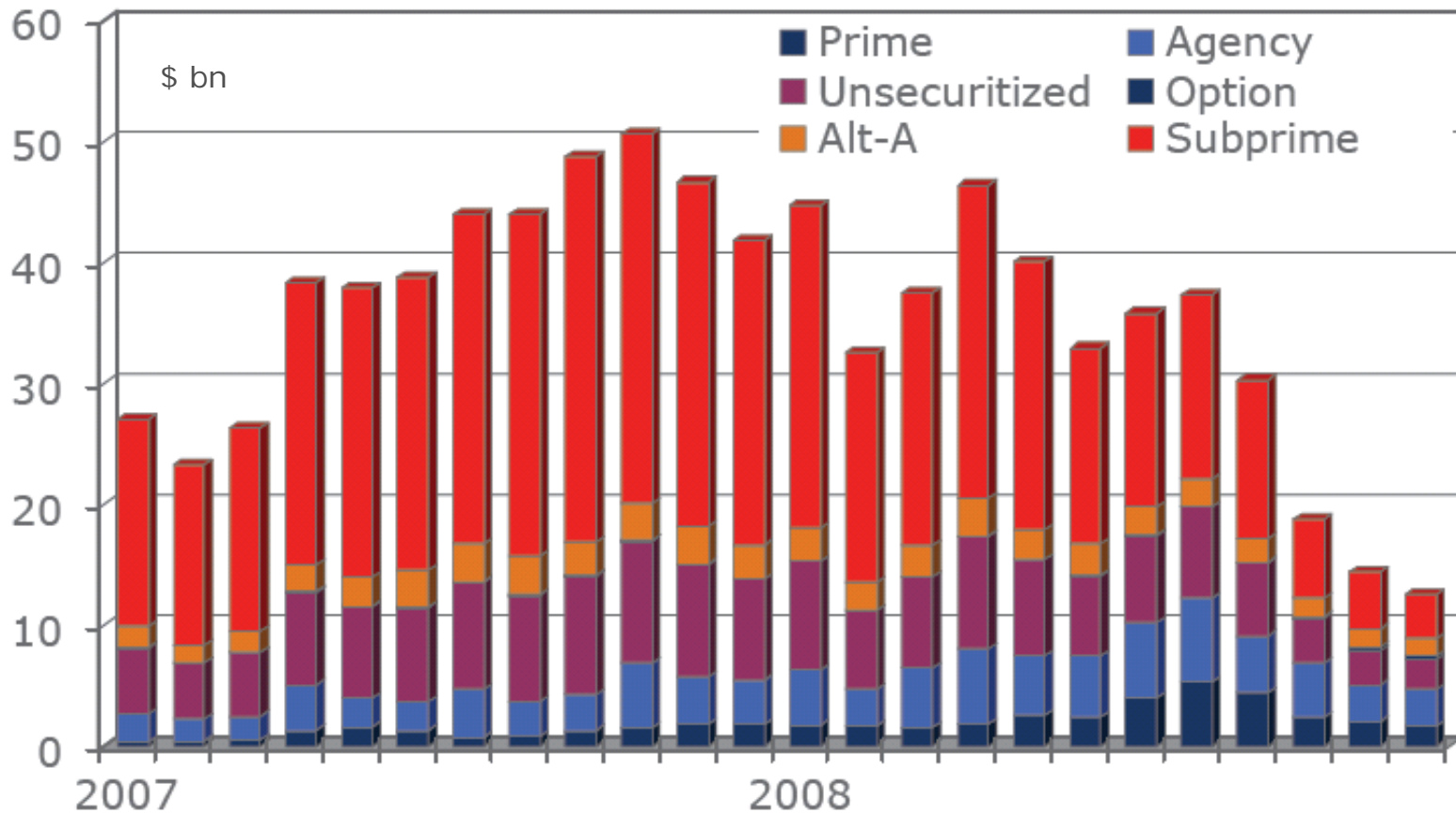


- Around 5% of sub-prime mortgages default within 4 months of origination
- Over 10% are defaulting immediately after re-setting at higher rates on expiry of the 'teaser' period
- Almost 59% of all 2004-06 mortgages will see payment increases of 25% or more in 2007 and beyond, and on around 19% of loans payments will increase by 50% or more
- Mortgage resets will continue at recent rates through into the second half of 2008
- Estimates of likely losses have ranged from \$60bn to \$100bn (0.5-0.9% of GDP)

Sources: Office of Federal Housing Enterprises Oversight; National Association of Realtors; Mortgage Bankers' Association; Kiff & Mills (IMF 2007); Cagan (First American CoreLogic 2007).

# Defaults are likely to continue at a high rate through 2008 as interest rates reset

## US mortgage debt outstanding facing first repayment reset



Source: Moody's.

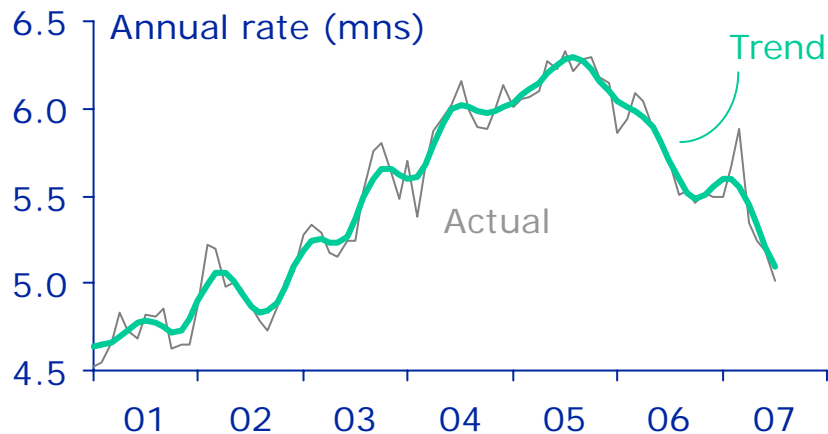
# Some other observations on the sub-prime mortgage debacle and its consequences

- In isolation, the likely scale of losses directly attributable to sub-prime mortgage defaults ( $\frac{1}{2}$ -1% of GDP) is smaller than those arising from the late 1980s S&L crisis (2½% of GDP)
- But whereas those losses were concentrated in one sector of the financial system, the losses arising from the sub-prime mortgage meltdown have been widely dispersed
  - on the one hand this means that there have (as yet) been no significant financial institution collapses (as may well have occurred if most of the bad loans had remained on the books of those who originated them)
  - on the other hand, since no-one knows who has incurred these losses (and there has been no 'generalized confession') market participants now assume almost everyone has – leading to an erosion of trust and confidence and thus to a 'seizing up' of the credit mechanism
- The 'originate-and-distribute' model of financial intermediation thus perhaps does not, in the end, disperse risk as widely as previously believed
- Note also that the sub-prime meltdown has its origins in attempts to maintain business growth rates in the face of a dramatic change in market conditions – a refusal to accept that cycles still exist

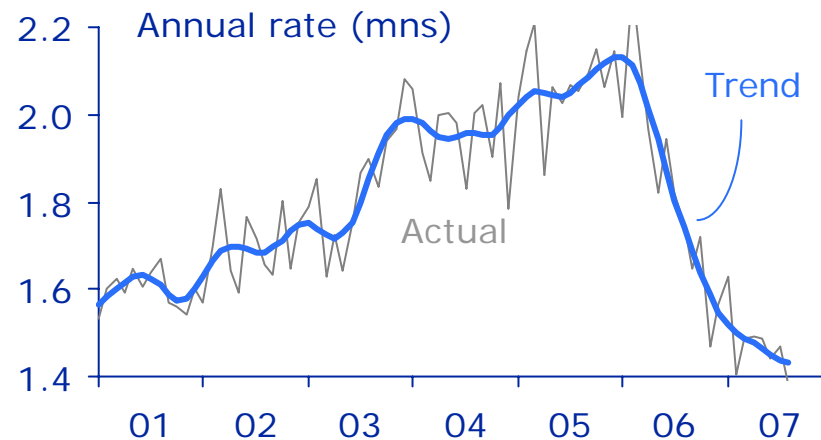


# The housing sector is a major drag on the US economy and likely to remain so for a while ...

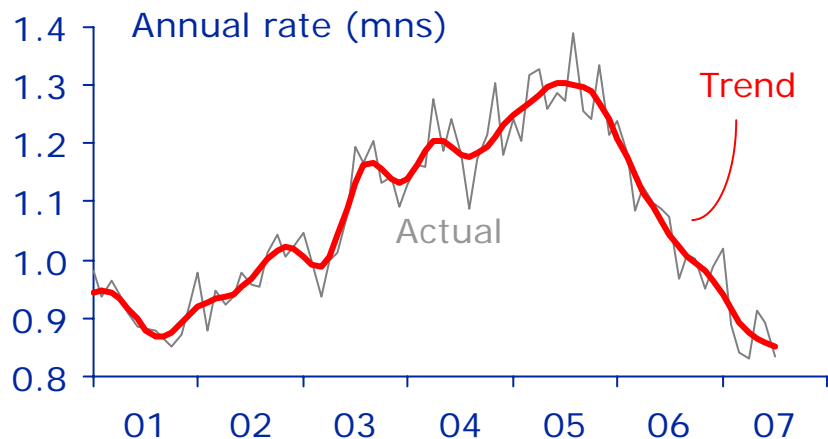
## Existing home sales



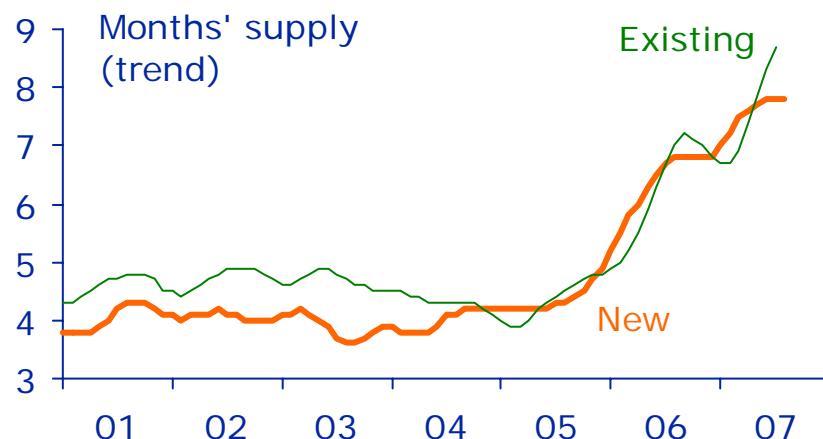
## Housing starts



## New home sales



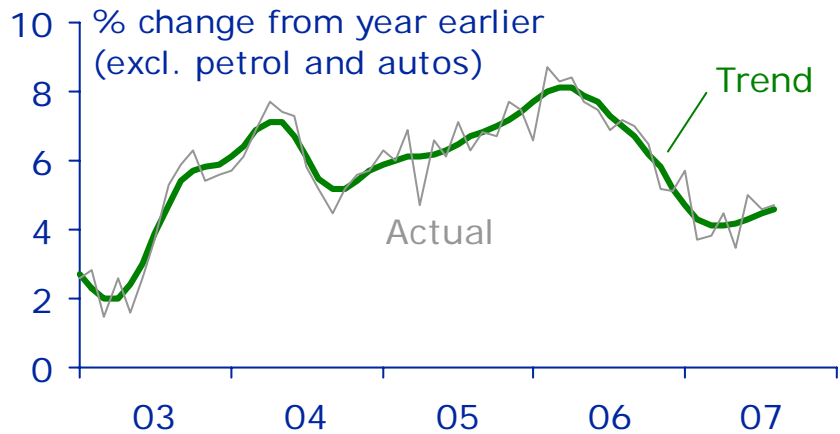
## Unsold new housing stock



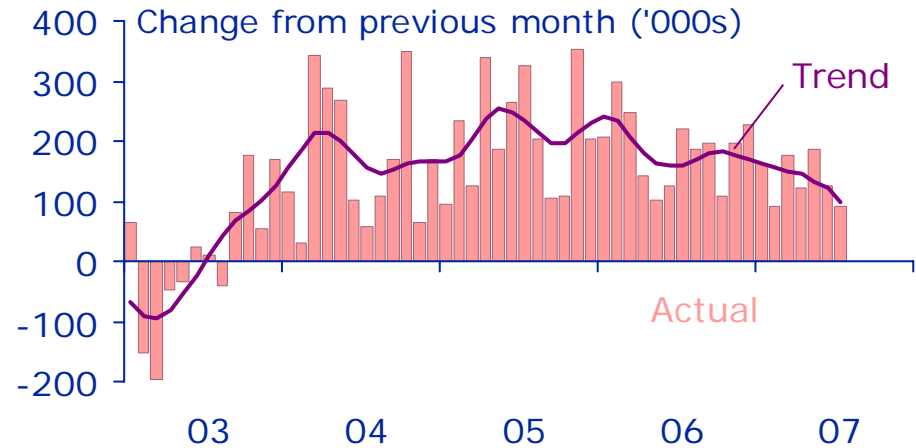
Sources: National Association of Realtors; US Commerce Department.

# ... and the broader US economy has slowed, although not dramatically so

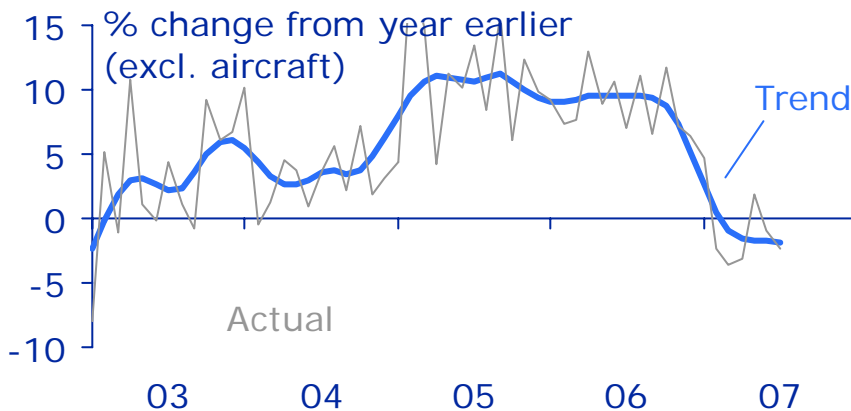
## Retail sales



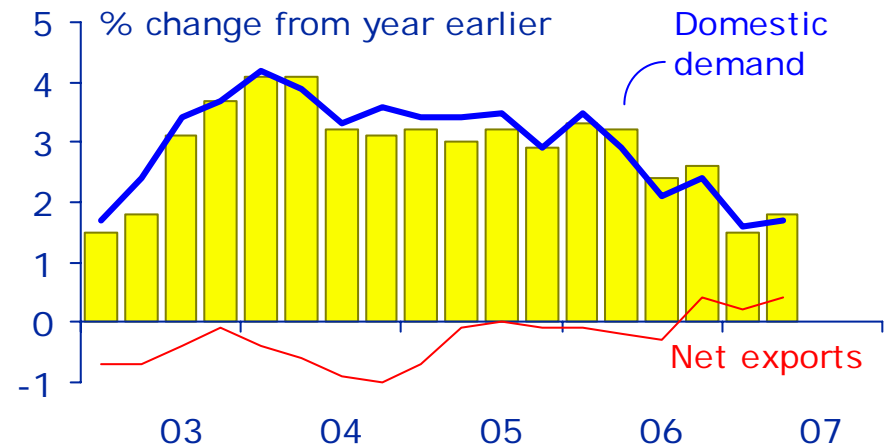
## Non-farm employment



## Non-defence capital goods orders



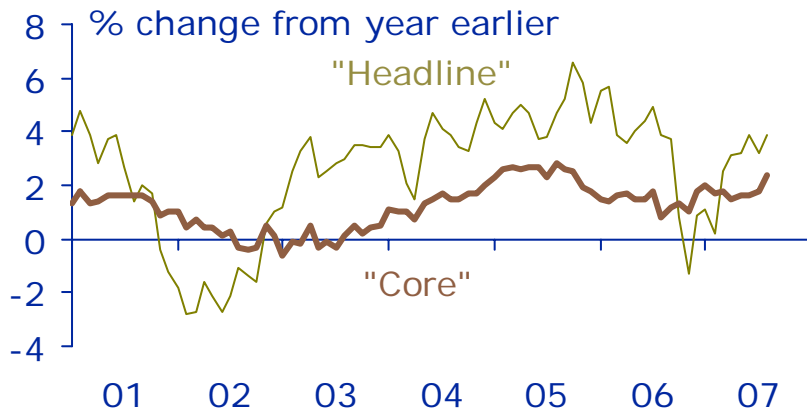
## Real GDP



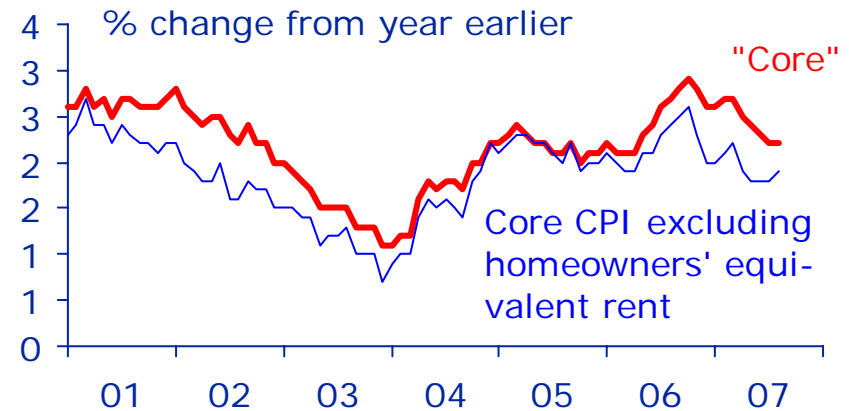
Sources: US Bureau of Economic Analysis and Labor Statistics;  
US Commerce Department.

# Until last week the Fed still thought upside risks to inflation outweighed downside risks to growth

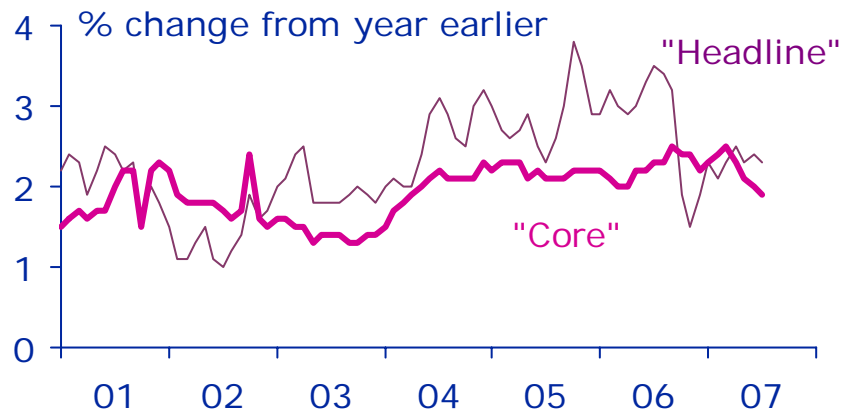
## Producer prices – finished goods



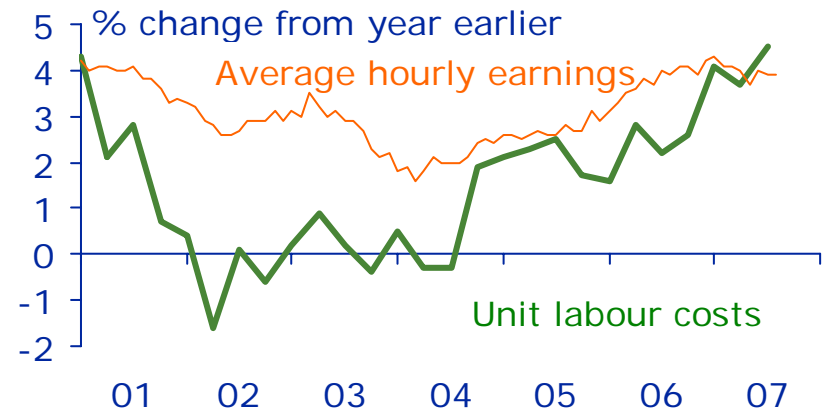
## 'Core' consumer prices



## Consumption expenditure deflator



## Labour costs



Note: 'core' means excluding food and energy. 'Homeowners' equivalent rent' is the rent notionally charged by owner-occupiers to themselves.

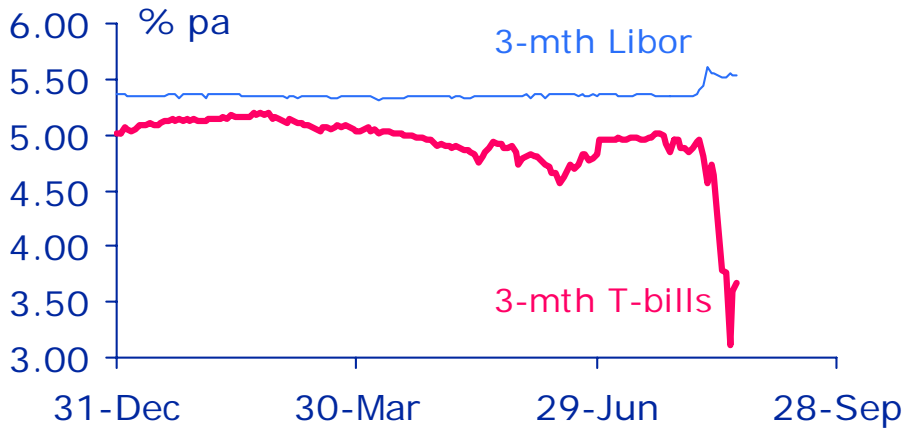
Sources: US Bureau of Labor Statistics and Economic Analysis.

# The Fed has a difficult job ahead of it

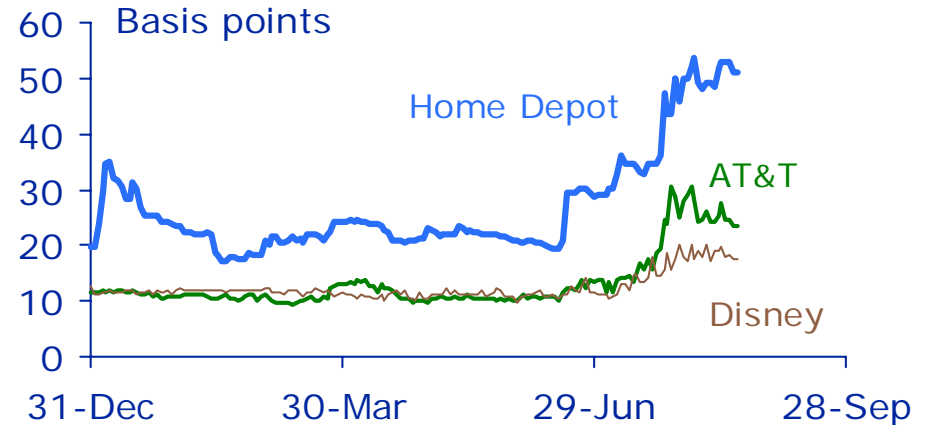
- The most fundamental rationale for a central bank is to ensure the stability of, and public confidence in, the financial system
  - in normal circumstances that's not an issue but in times such as these the Fed has to give priority to ensuring the smooth and orderly operation of the financial system
  - hence the priority given to injecting liquidity, encouraging discount window borrowing and expanding the range of securities used as collateral for repos and borrowing
- The Fed (and other central banks) have also needed to offset the impact that extreme risk aversion has had on the supply of and demand for cash, which if not offset would have seen cash rates above the levels intended for monetary policy purposes
- Over and above that, the 'repricing of risk' amounts to a *de facto* tightening of monetary conditions – by some estimates equivalent to a 50bp rise in the cash rate
  - if that persists, the Fed will need to offset that by cutting rates
  - and maybe do more if the economy starts to weaken
- At the same time the Fed under Bernanke wants to avoid 'moral hazard' – that is, cutting rates solely to rescue lenders and investors from the consequences of their imprudence
  - a charge increasingly commonly levelled (albeit with the benefit of hindsight) at his predecessor

# US credit markets have been struck by a dramatic heightening in 'risk aversion'

## 3mth T-bill and Libor rates



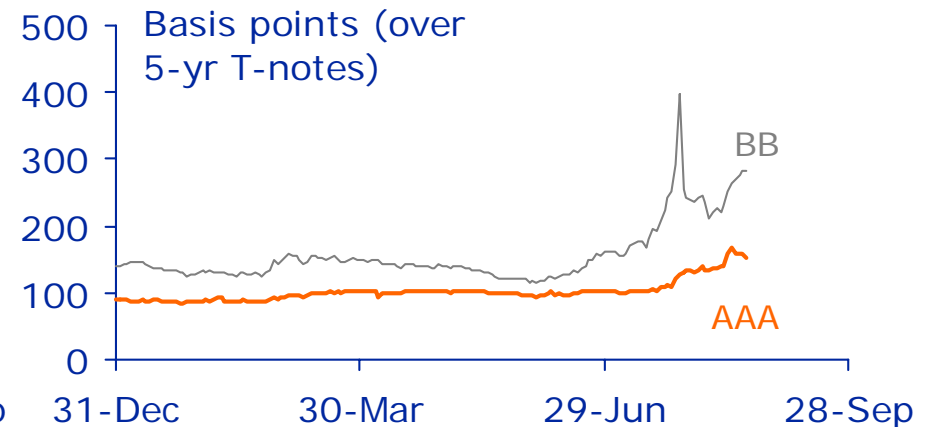
## Corporate default swap spreads



## Swap spreads



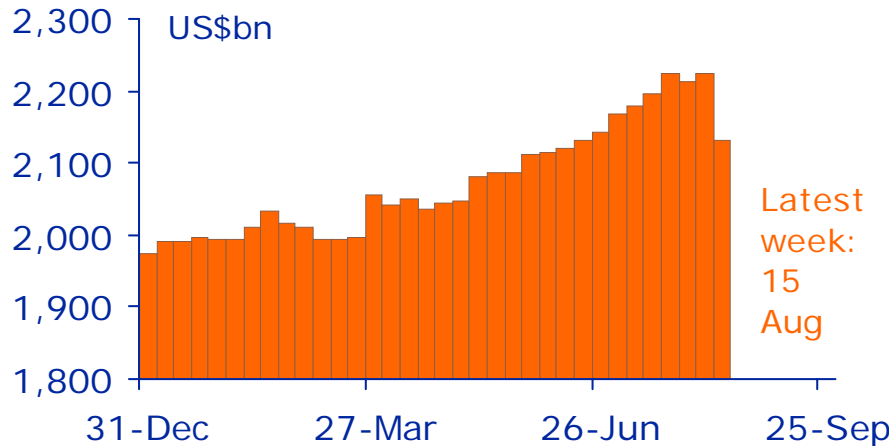
## Corporate bond yield spreads



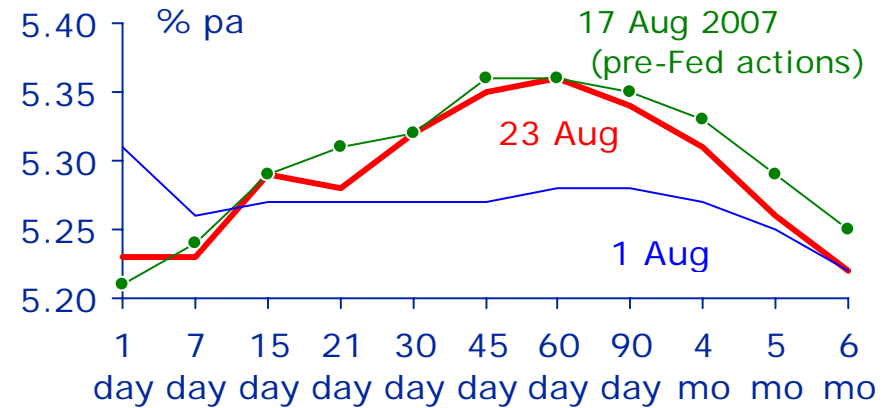
Sources: Bloomberg; Economics@ANZ.

# The commercial paper market (especially the asset backed sector) has been hard hit

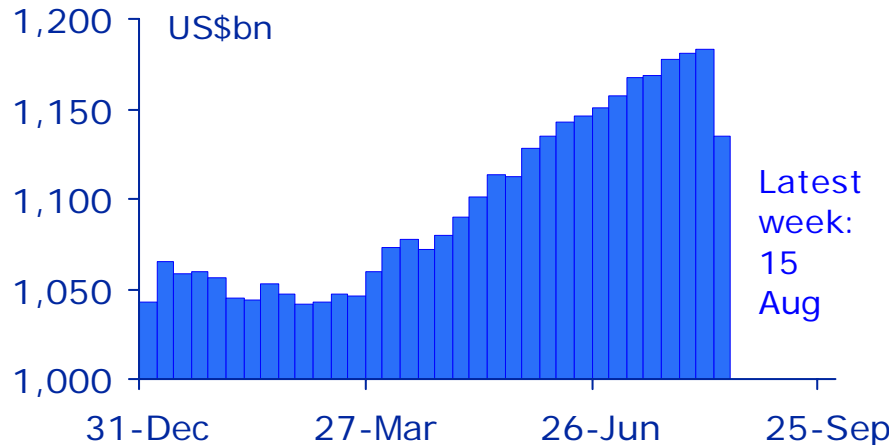
## Commercial paper outstanding



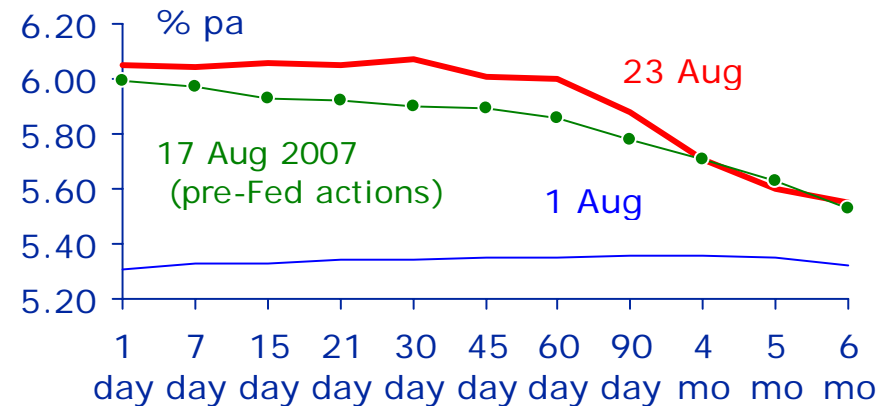
## CP yield curve



## Asset backed commercial paper



## ABCP yield curve

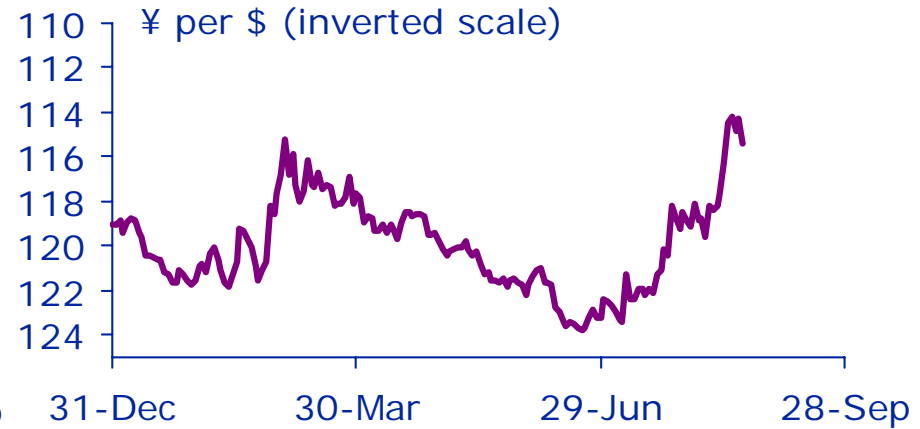


# Heightened risk aversion has prompted large movements in other markets

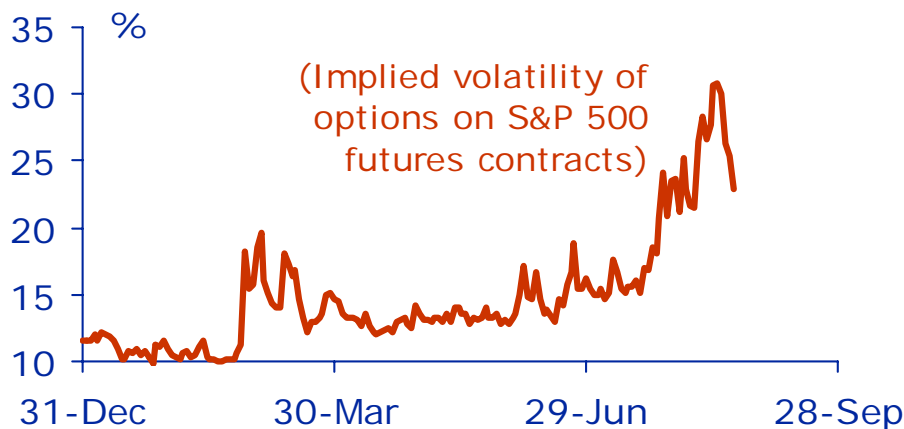
## S&P 500



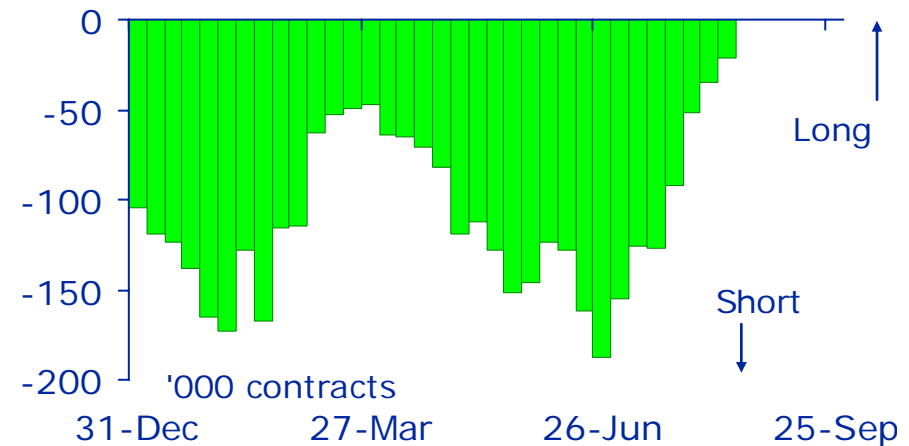
## US dollar vs yen



## VIX index



## Net yen futures positions on IMM



Sources: Bloomberg; Thomson Financial; Economics@ANZ.

# US financial markets now pricing two ¼ pc pt cuts in the Fed funds rate

## Fed funds futures



## 2-year T-note



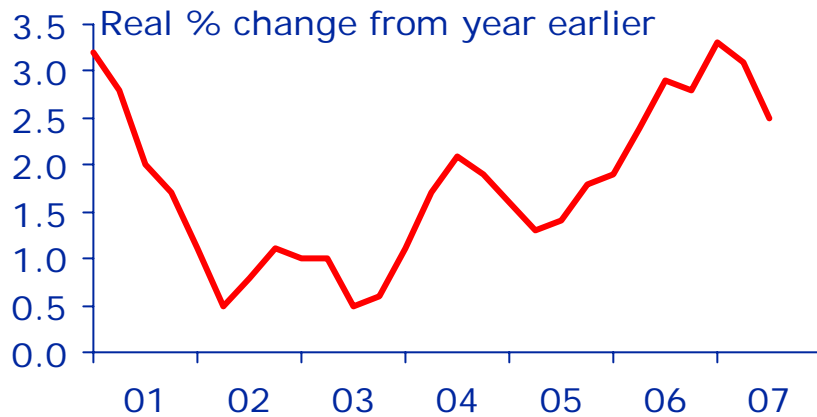
- The Fed will cut the funds rate 25bp to 5% at the 18 September FOMC meeting
  - and retain the option of cutting before then in the event of another major market shock
- Whether the Fed cuts again on 30 October or later depends on the market reaction to next month's move and on what data says about the impact (if any) on economic activity
- For now we assume that one rate cut will be sufficient
  - but as with the Fed itself that view will change if the data challenges that assumption

Sources: Bloomberg; Thomson Financial; Economics@ANZ.

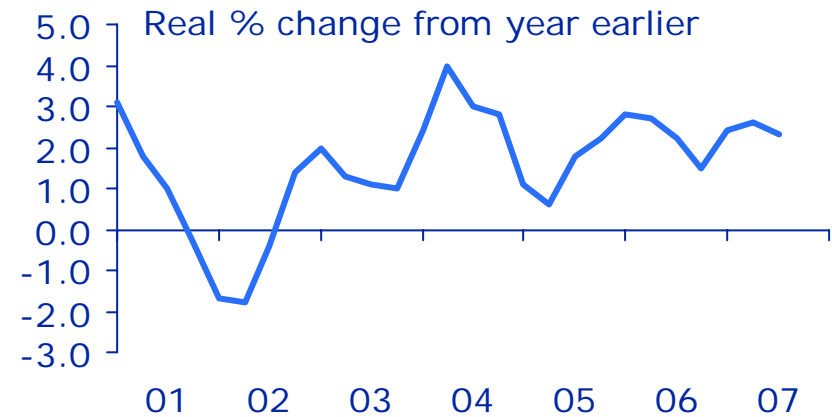


# Euro area and Japan economies still doing well despite some softening in Q2 GDP growth

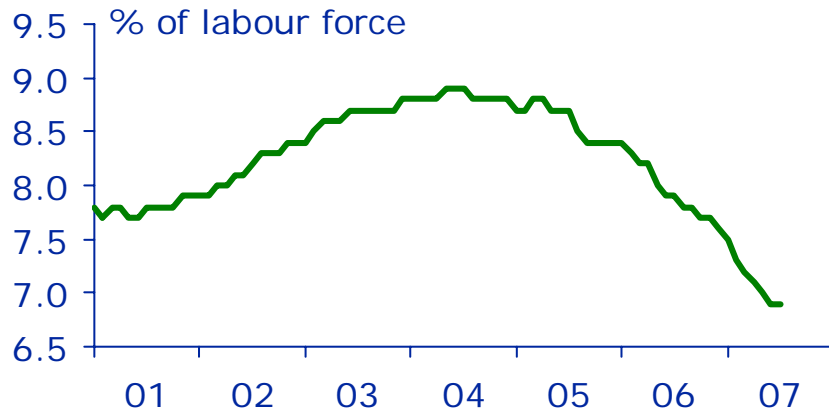
## Euro area GDP growth



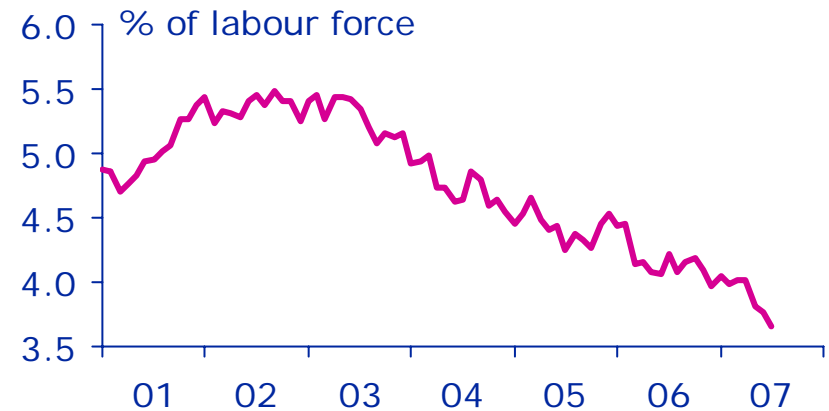
## Japan GDP growth



## Euro area unemployment



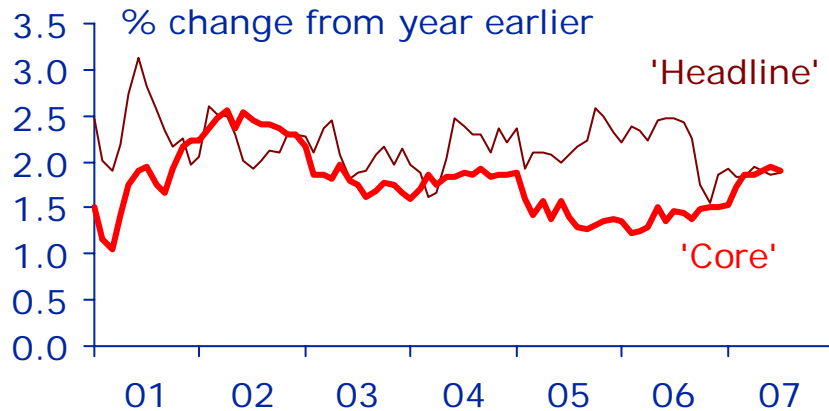
## Japan unemployment



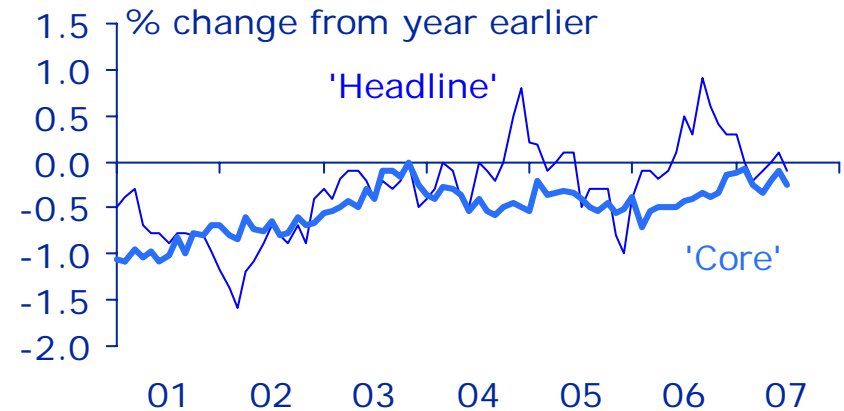
Sources: Eurostat; Japan Economic & Social Research Institute and Home Ministry.

# Inflation uncomfortably high for ECB and low for BoJ, but both now likely to stay 'on hold' this year

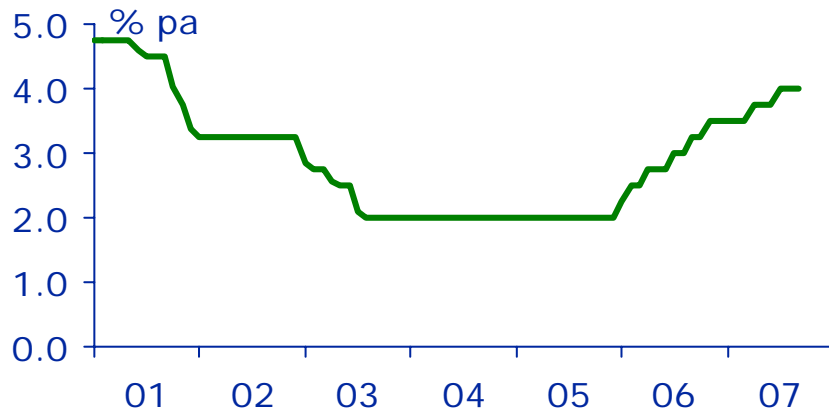
## Euro area consumer prices



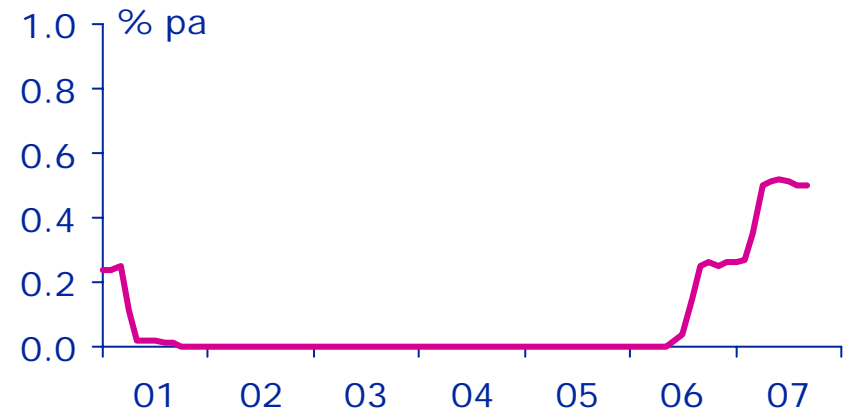
## Japan consumer prices



## ECB refi rate



## BoJ overnight call rate

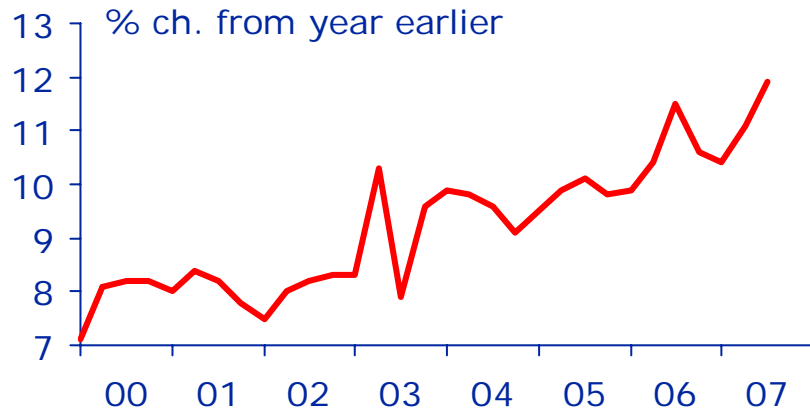


Note: 'core' inflation is excluding food and energy.

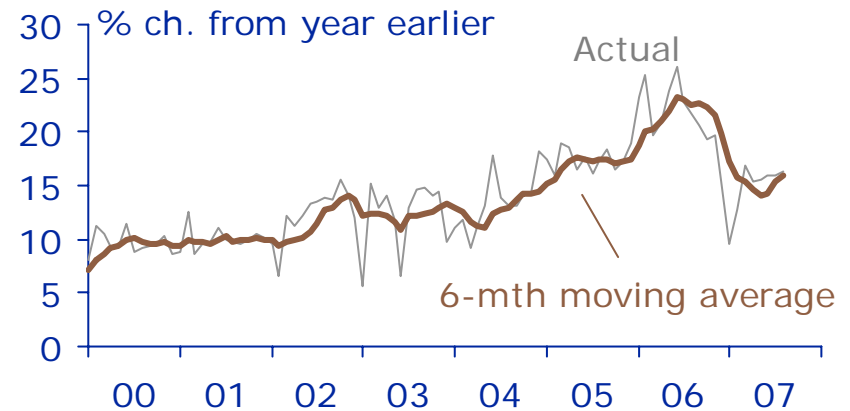
Sources: Eurostat; OECD; ECB; BoJ.

# China's GDP growth rate remains above 10% pa despite ostensible efforts to slow it down

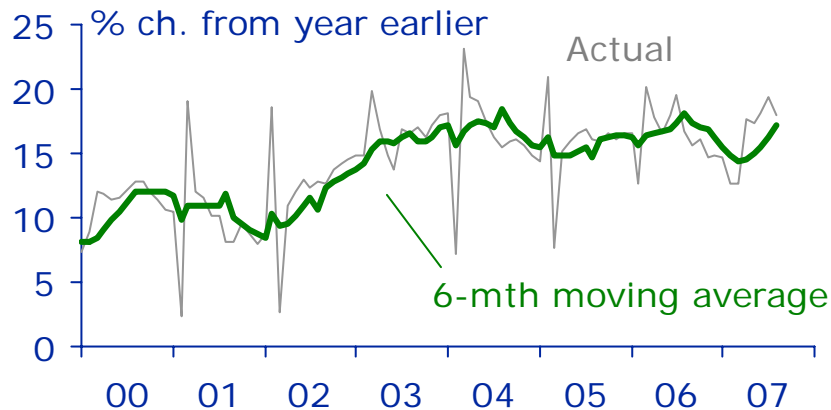
## Real GDP



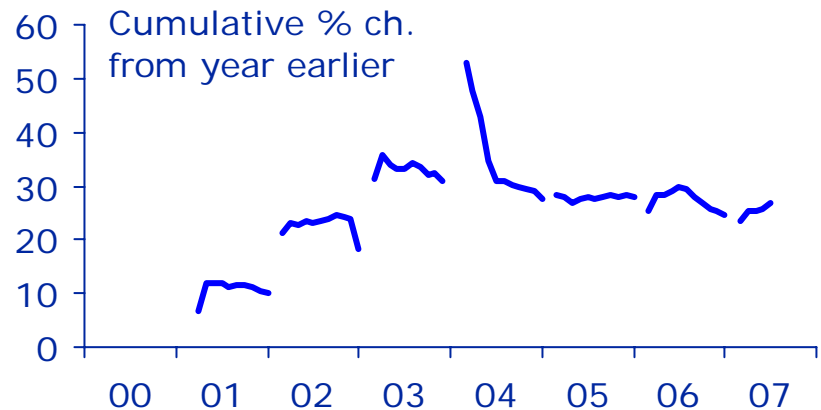
## Retail sales



## Industrial production



## Fixed asset investment

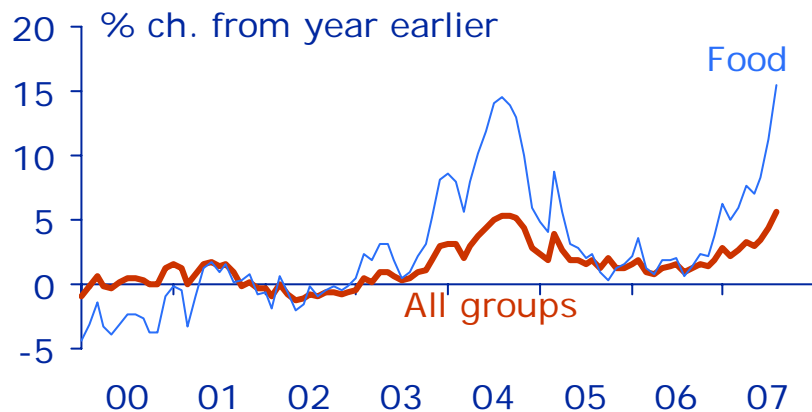


Note: IP and retail sales figures for January and February in some years distorted by shifts in timing of New Year holidays.

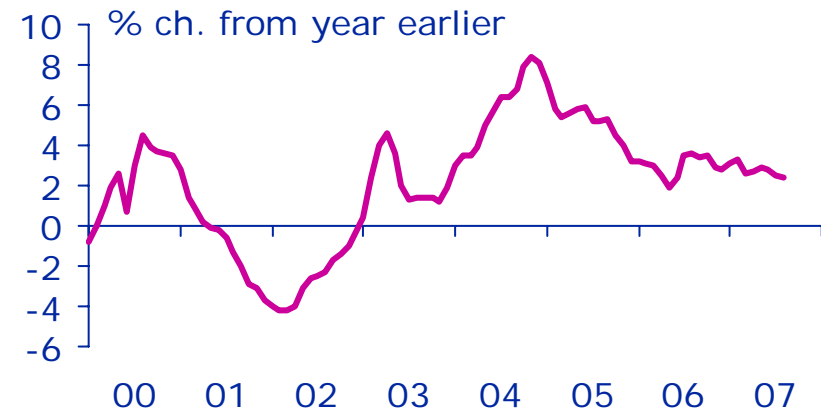
Source: China National Statistics Bureau

# Rising CPI inflation largely the result of higher meat prices – but export prices are rising too

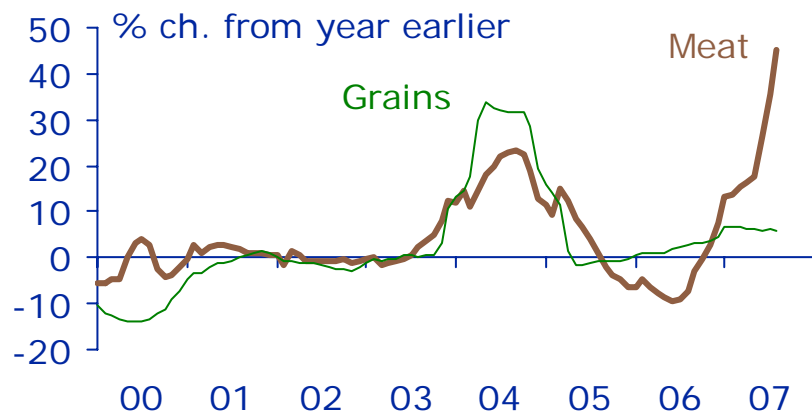
## Consumer prices



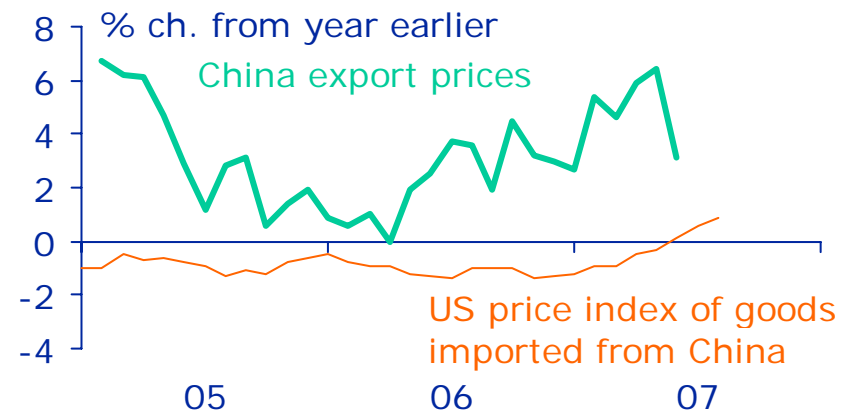
## Producer prices



## Consumer food prices



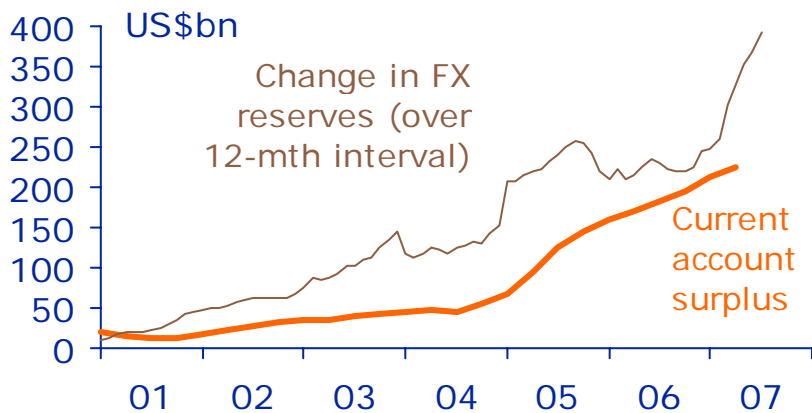
## Export prices



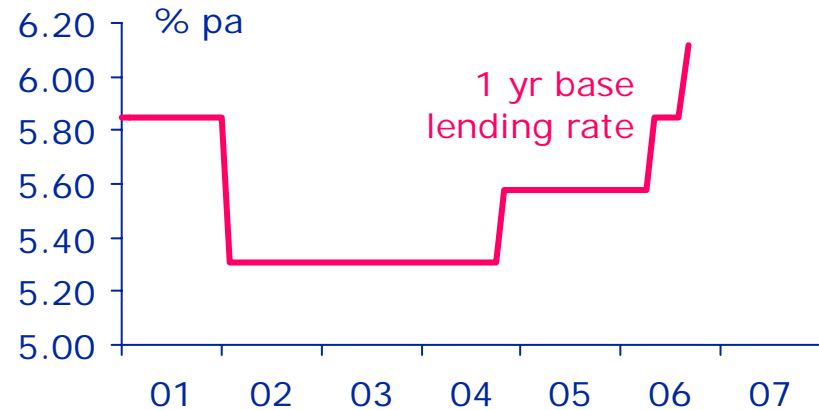
Sources: China National Statistics Bureau;  
US Commerce Department.

# Money and credit continue to grow rapidly despite further tightening of monetary policy

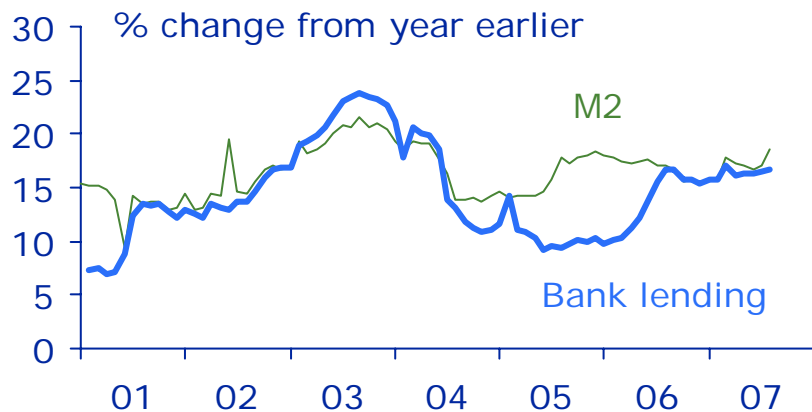
## Increase in FX reserves



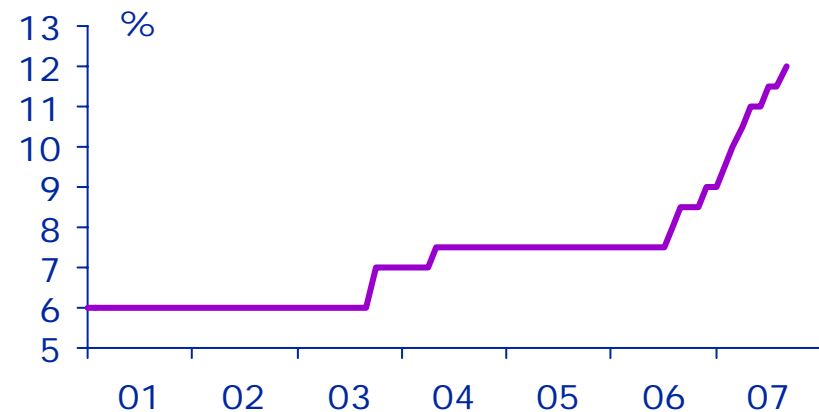
## Interest rates



## Money supply and bank lending



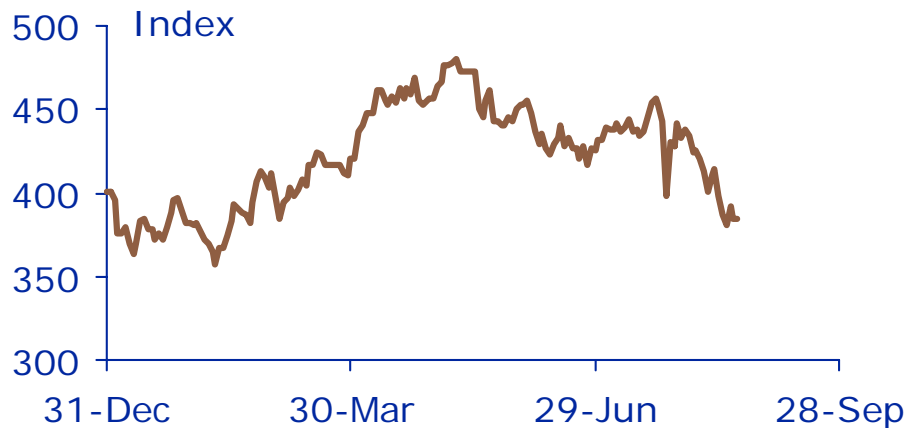
## Banks required reserves ratio



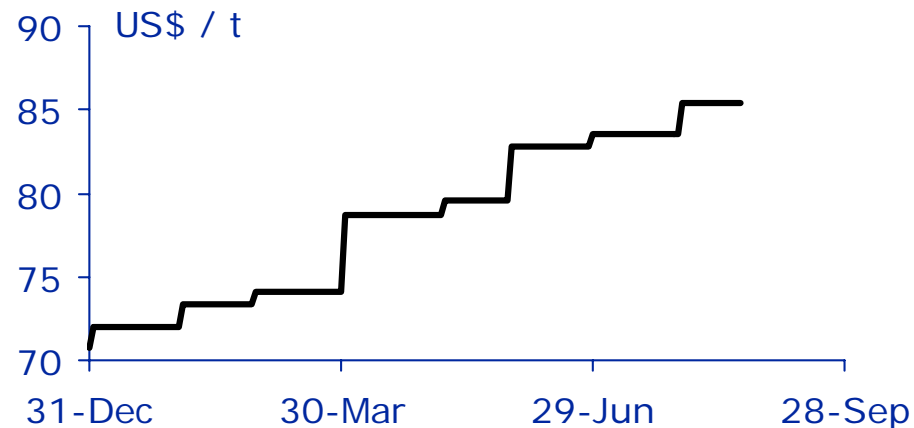
Source: China National Statistics Bureau; People's Bank of China; Thomson Financial Datastream.

# Commodity price movements don't point to any sudden drop in commodity demand

## Base metals price index



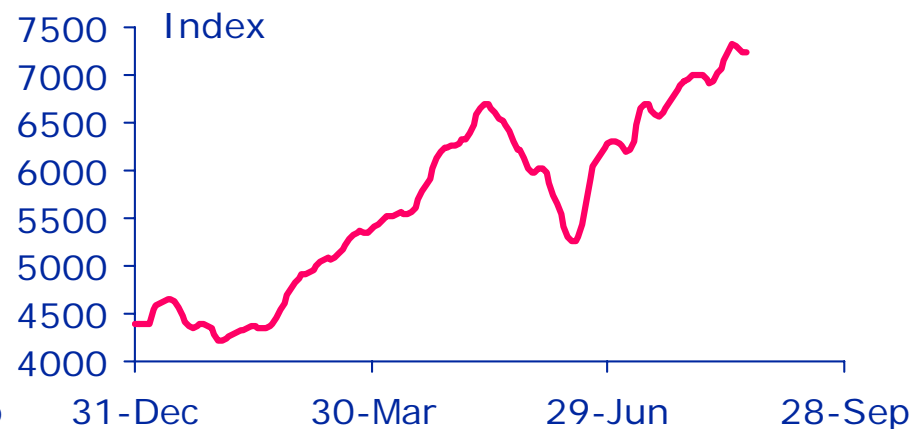
## Spot coal prices



## CRB industrials index



## 'Baltic Dry' index\*



\* An index of shipping freight price futures

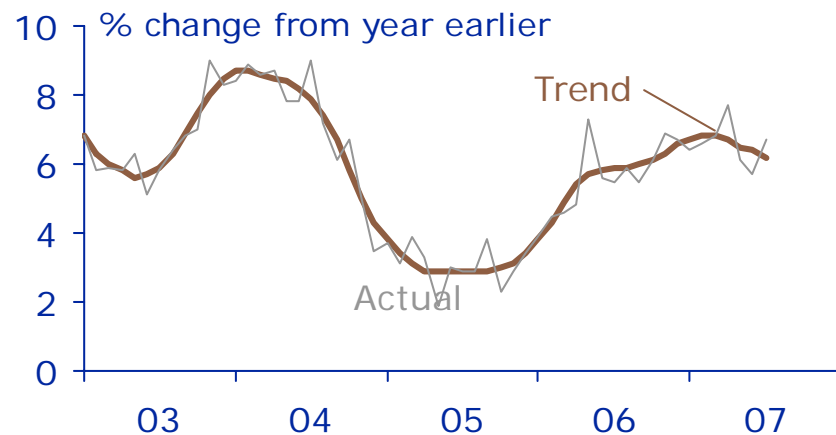
Sources: Datastream; Economics@ANZ.

# Despite dips associated with rate rises the underlying trend in Australia's economy remains firm

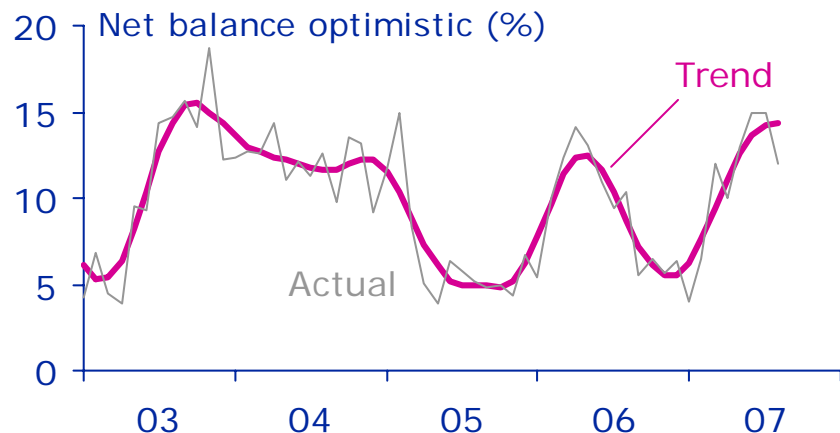
## Consumer confidence



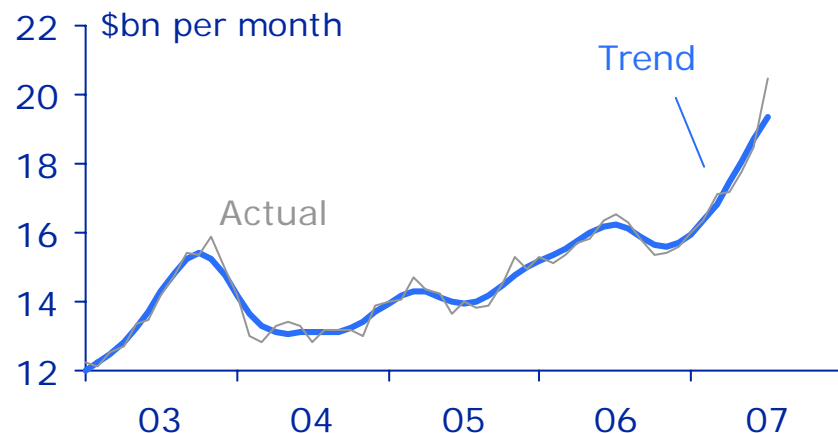
## Retail sales



## Business confidence



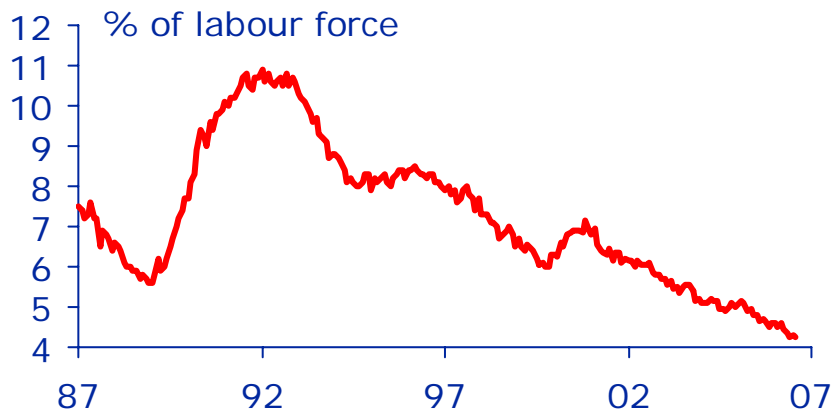
## Housing finance commitments



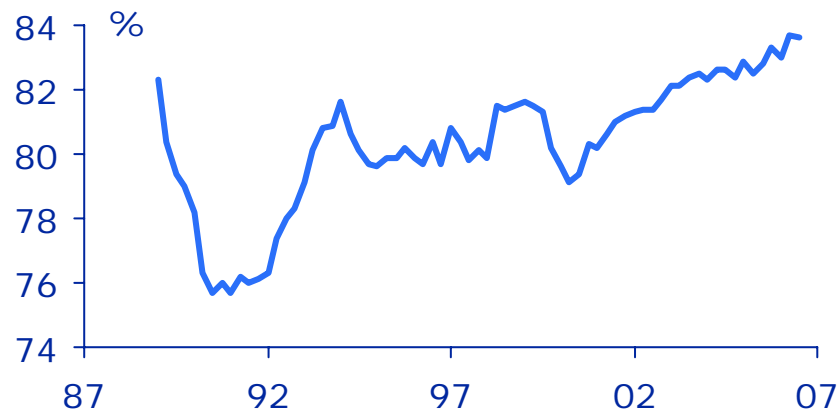
Sources: Westpac-Melbourne Institute; National Australia Bank; ABS.

# The Australian economy is bumping up against 'capacity constraints'

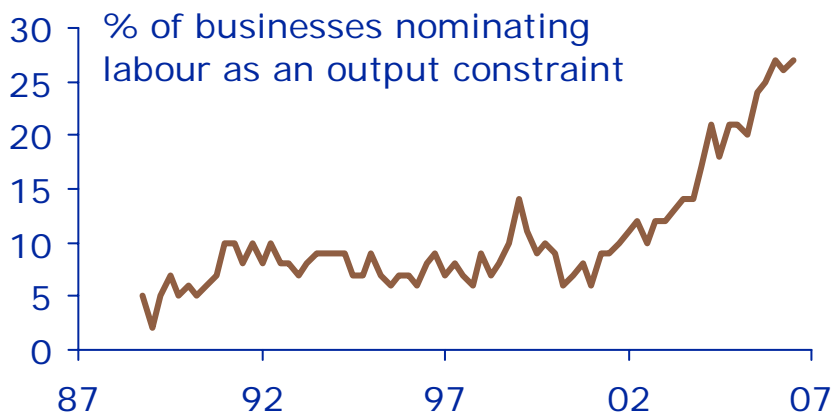
## Unemployment rates



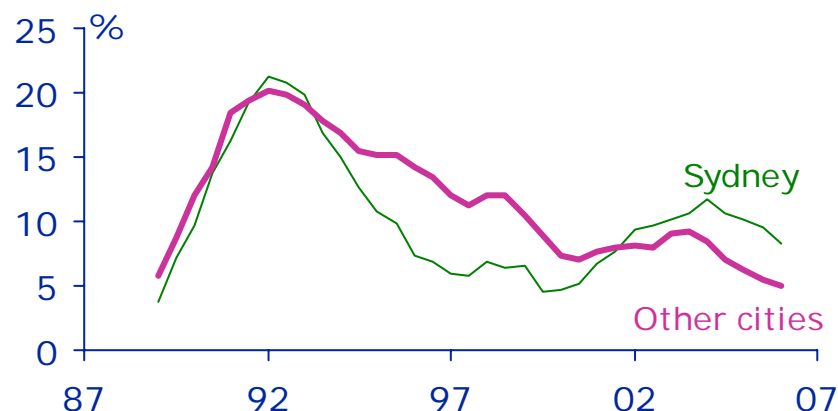
## Capacity utilization



## Labour shortages



## Office vacancy rates

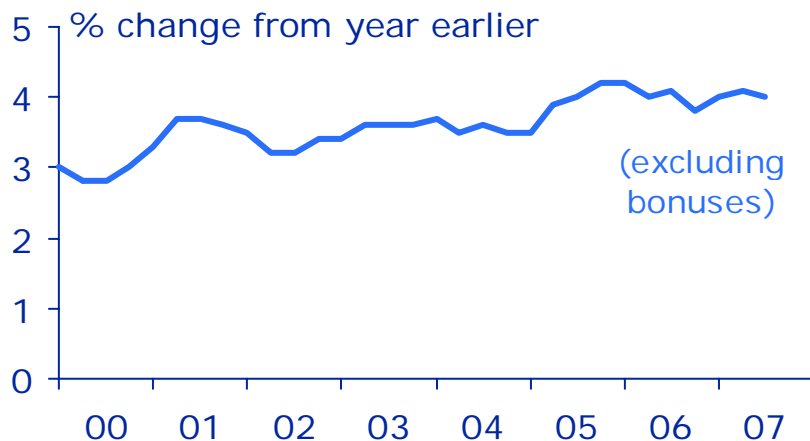


Sources: Australian Bureau of Statistics; National Australia Bank; Property Council of Australia.

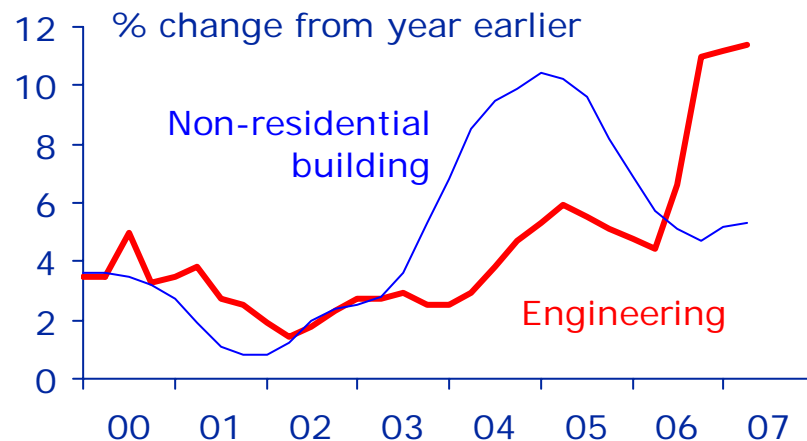


# In these circumstances the risks of an acceleration in inflation are higher

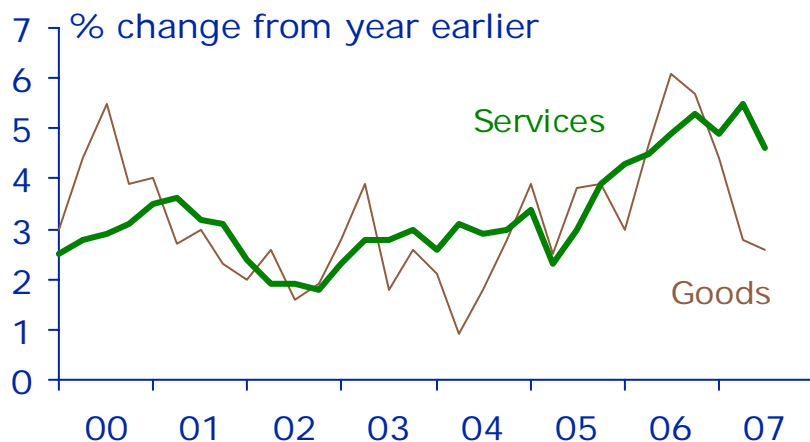
## Wage cost index



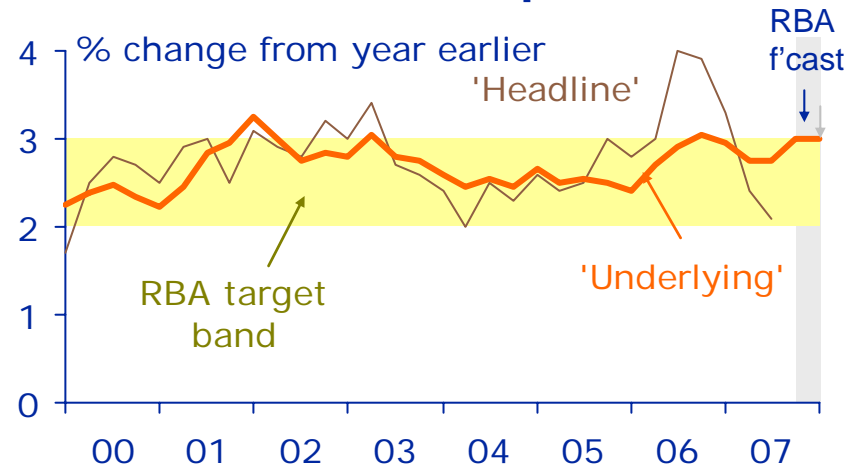
## Construction costs



## Domestic producer prices



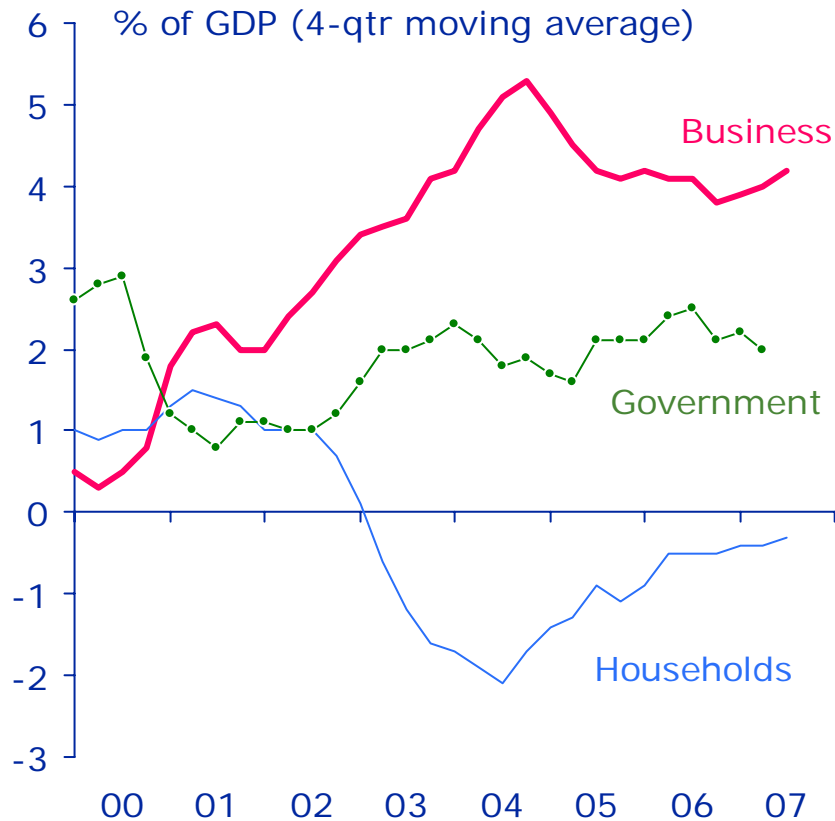
## Consumer prices



Sources: ABS; RBA.

# By transferring income from business to households, fiscal policy has been boosting demand

## Components of national saving



Sources: ABS; Economics@ANZ.

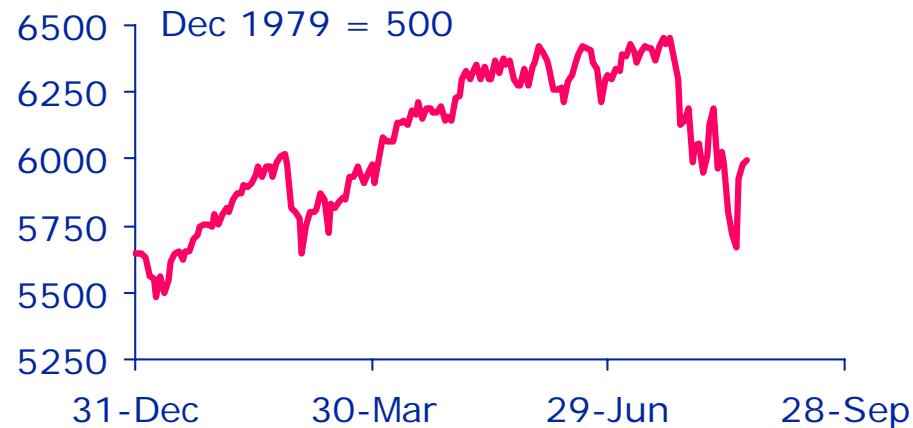
- In each of the past four budgets, the Government has redistributed windfall gains accruing to it from higher-than-expected company tax collections to households via tax cuts and cash handouts, leaving its surplus essentially unchanged
- In so doing the government transfers income from a sector which saves 4% of GDP to one which dis-saves ½% of GDP
- Hence fiscal policy is, at the margin, boosting demand – and thus putting upward pressure on interest rates – even though the Budget remains in surplus

# Risk has been 'repriced' in Australia too, though not as dramatically as in the US

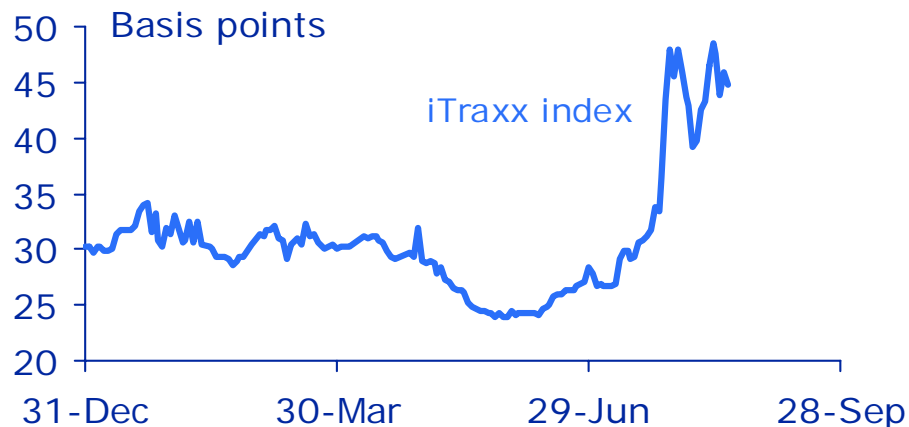
## Swap spreads



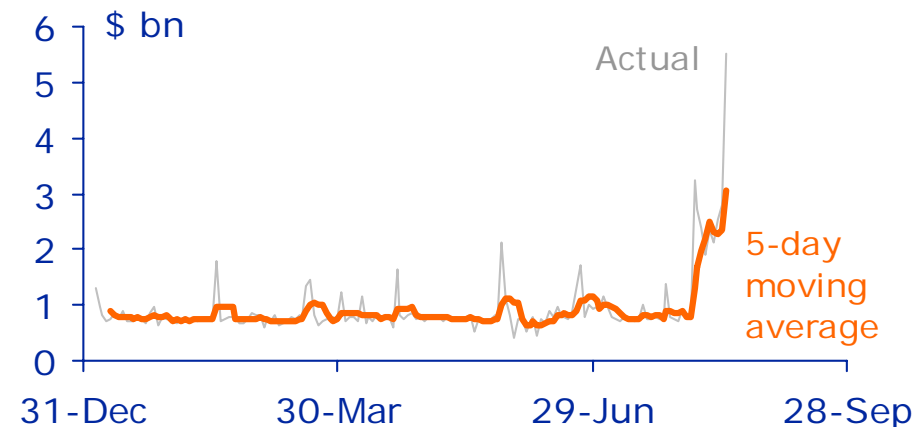
## ASX 200



## 5 year CDS spreads



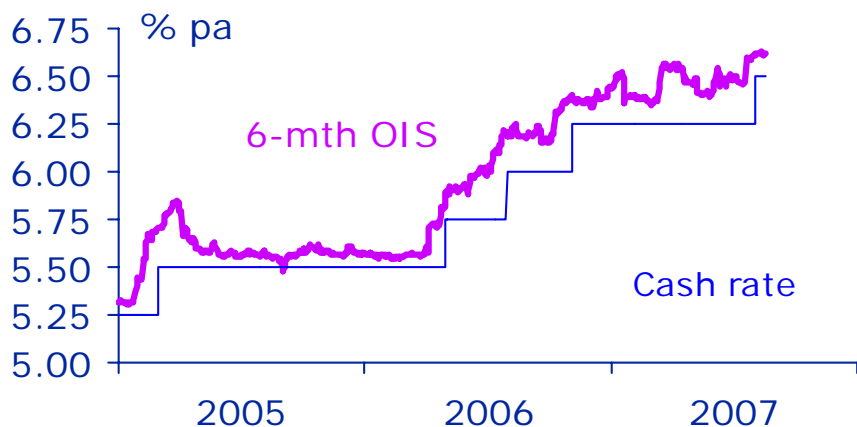
## ESA\* balances with RBA



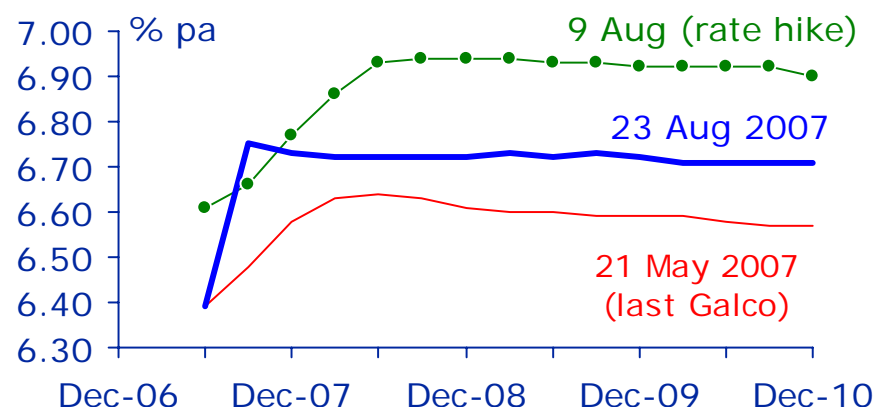
\* Exchange settlement account Sources: Bloomberg; Economics@ANZ.

# Markets less convinced of another RBA rate hike although spreads also reflect credit concerns

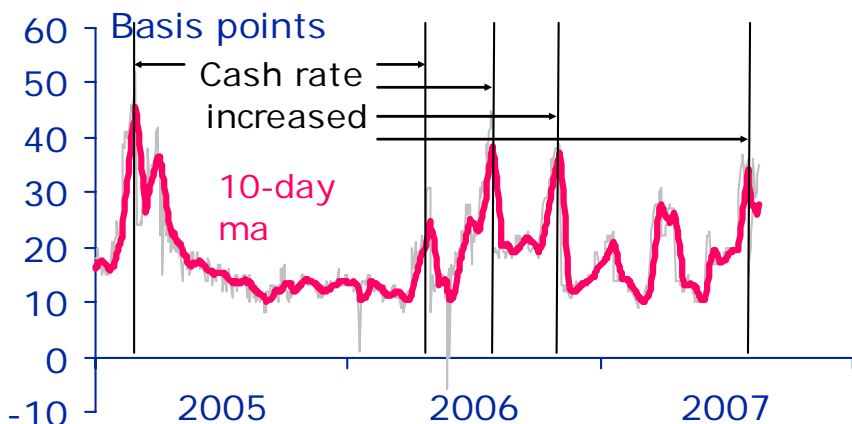
## Overnight index swaps



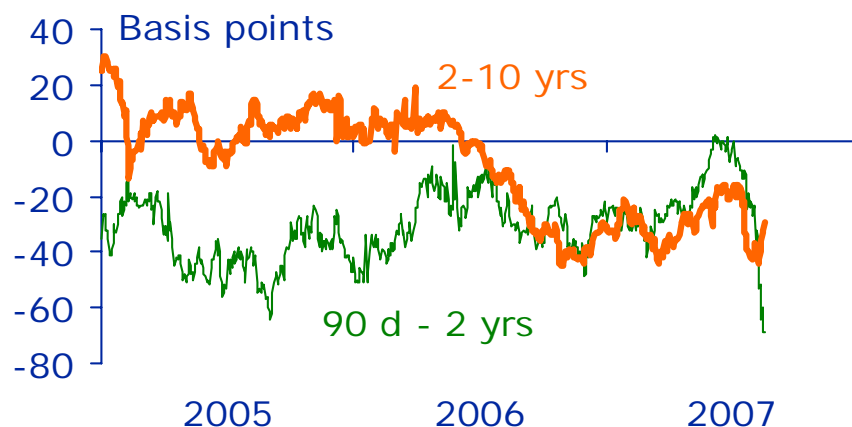
## 90-day bank bill futures



## 90-day bill funding spread



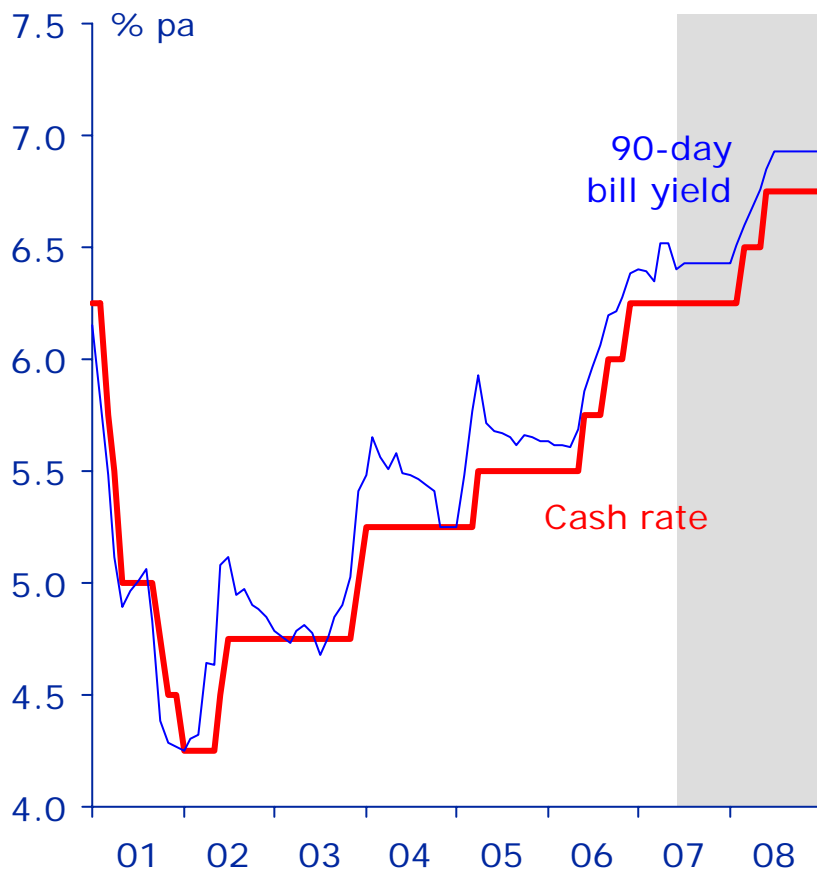
## Yield curves



Sources: Bloomberg; Economics@ANZ.

# Interest rates probably won't rise before the election but will go up again afterwards

## Australian interest rates



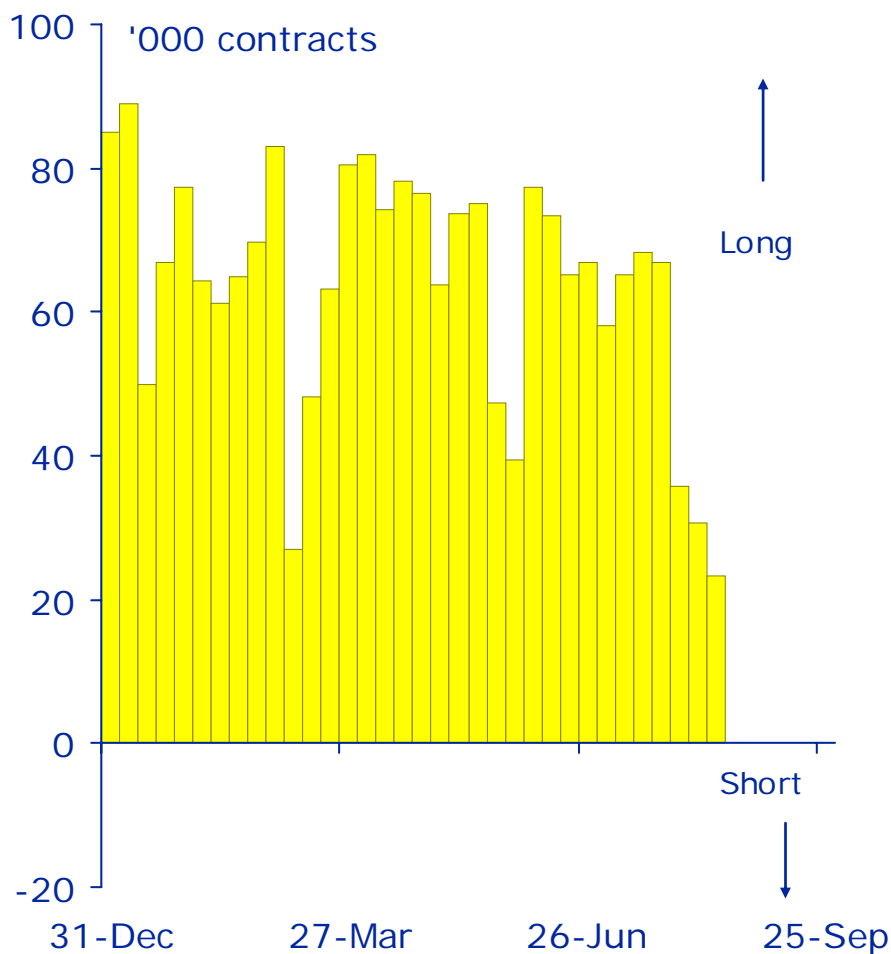
Shaded areas denote forecasts.

Sources: RBA; Datastream; Economics@ANZ.

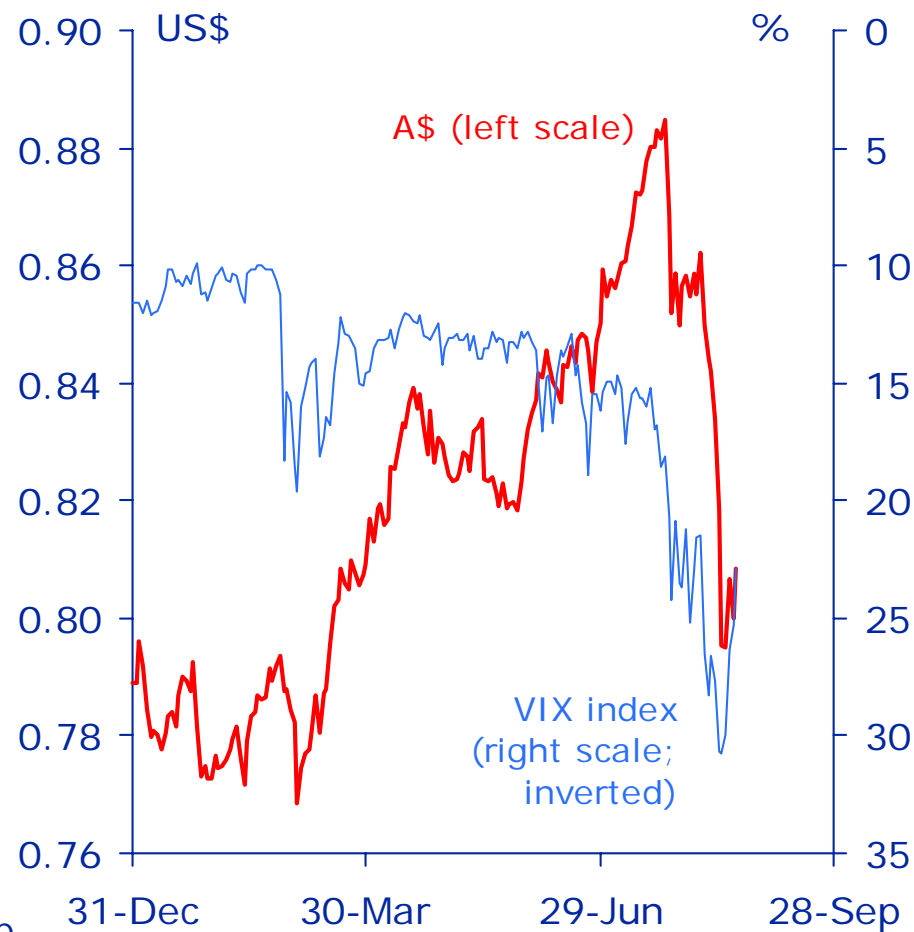
- In justifying this month's rate hike the RBA cited upward revisions to its outlook for inflation (to the top end of the target band through mid-2008), stimulus from high commodity prices, strengthening domestic demand and limited spare capacity
- Governor Stevens last Friday downplayed the economic implications of recent market events though indicating a need to 'watch closely' ...
- ... and firmly indicated a willingness to raise rates in November 'if needed'
- We expect however that the RBA will hold off from raising rates again until February

# The A\$ has been brought down sharply by the 'repricing of risk'

## Net A\$ futures positions on IMM



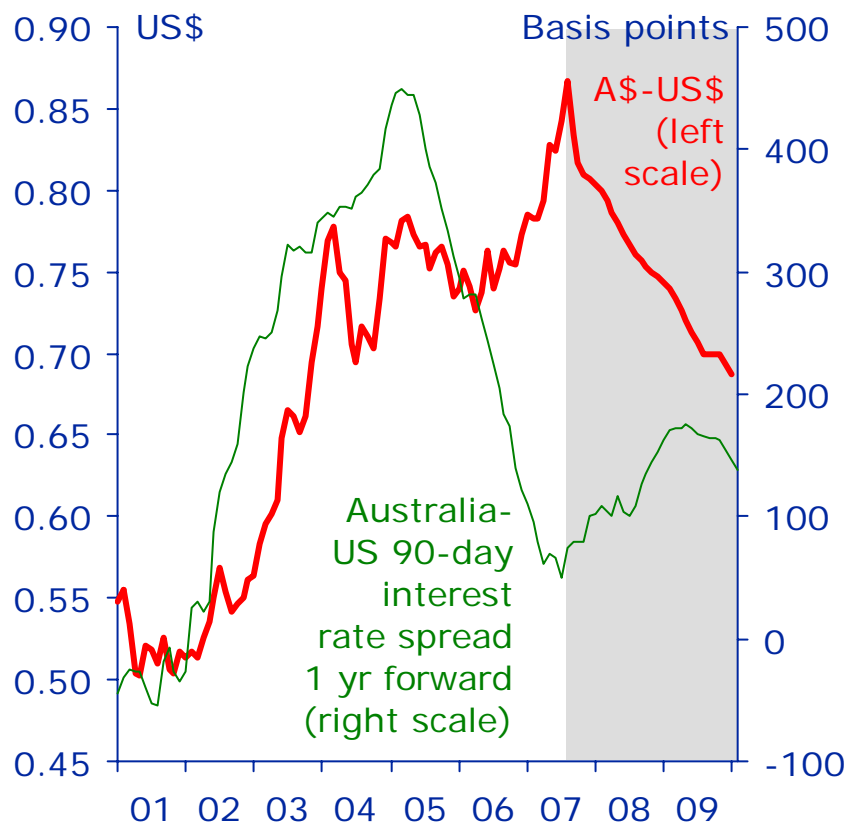
## A\$ and VIX



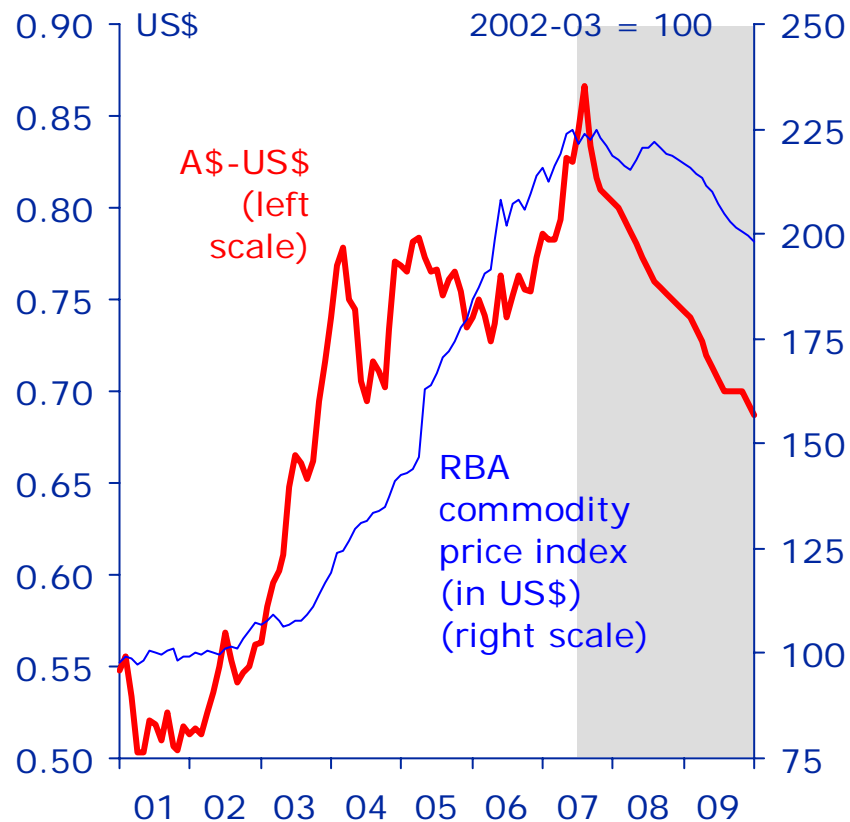
# A\$ likely to be weaker in more risk-averse environment though commodities still a support

## Economic influences on the value of the A\$

### Interest rate spreads



### Commodity prices

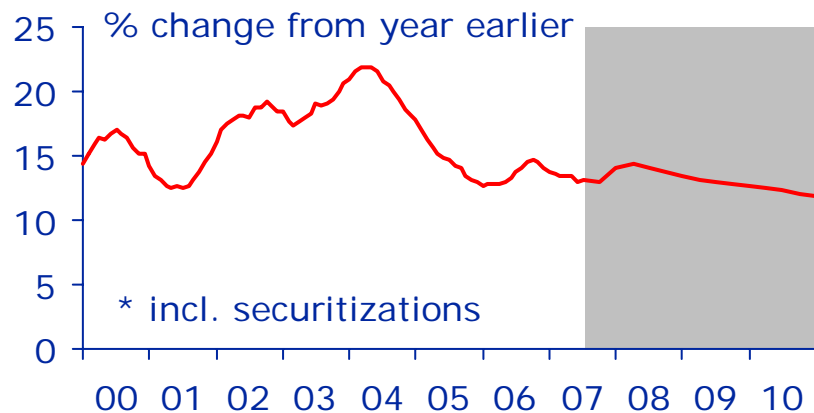


Shaded areas denote forecasts.

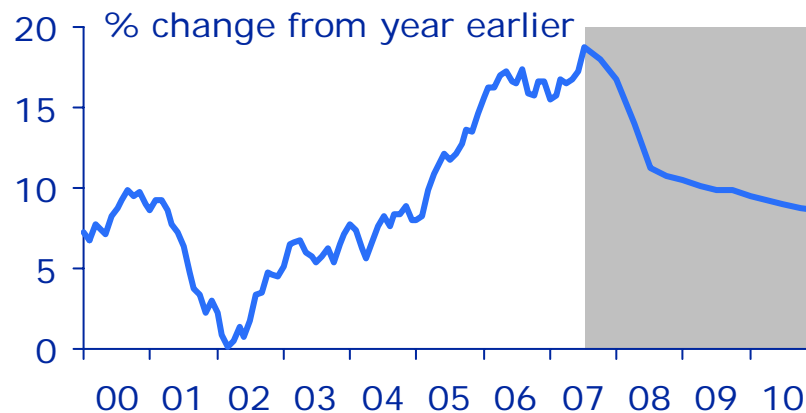
Sources: Datastream; RBA; Economics@ANZ.

# Credit growth stronger than expected this year but likely to slow with repricing

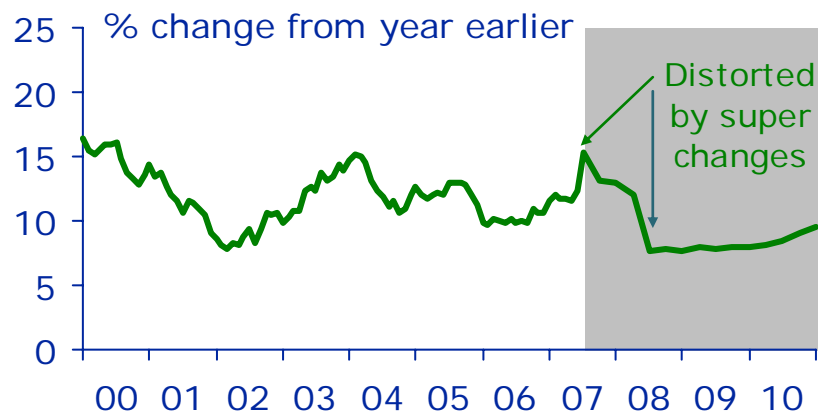
## Housing credit\*



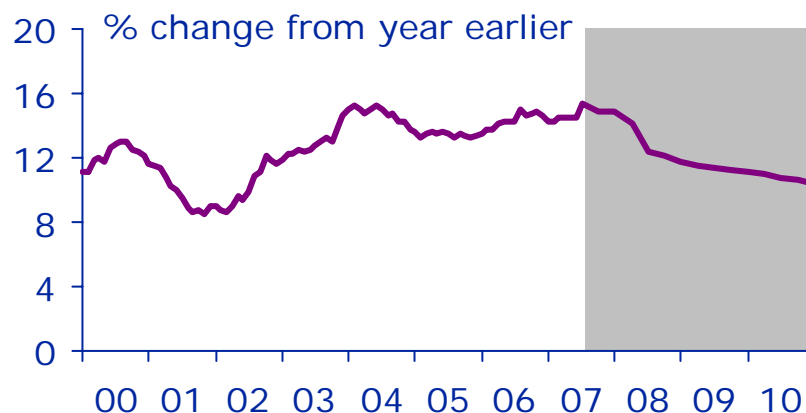
## Business credit



## Other personal credit



## Total credit

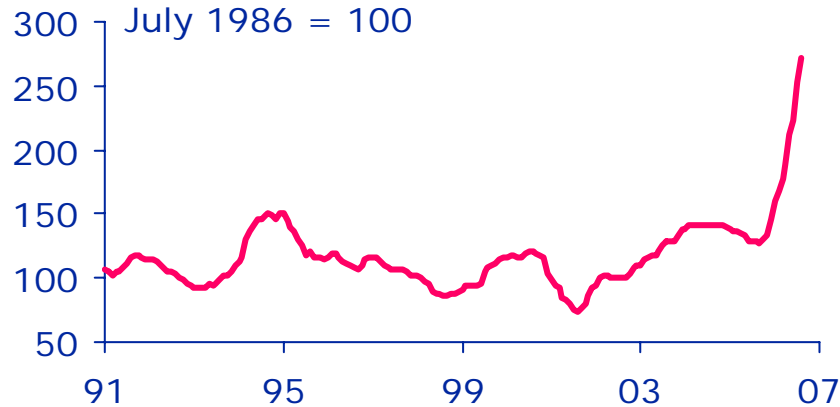


Source: Reserve Bank of Australia;  
Economics@ANZ forecasts.

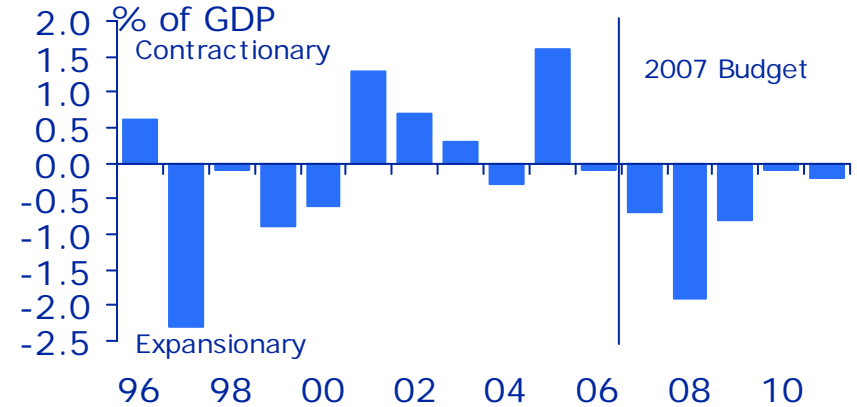


# NZ is benefiting from strong dairy prices, terms of trade, and promises of fiscal stimulus

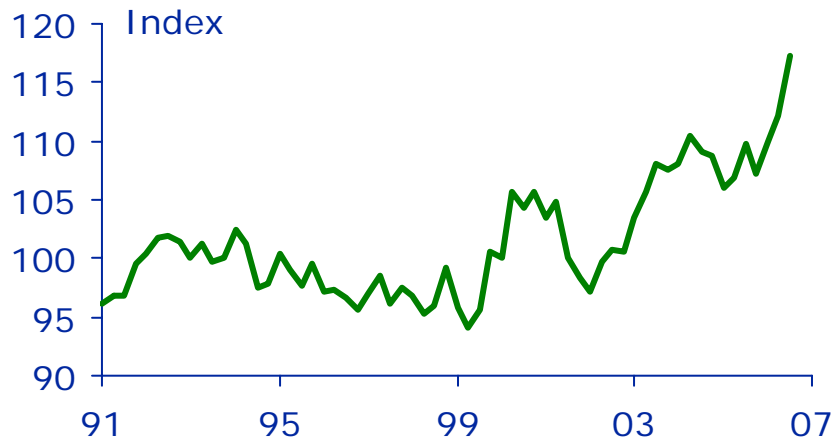
## World dairy prices



## Fiscal Impulse



## Terms of trade



## Labour market



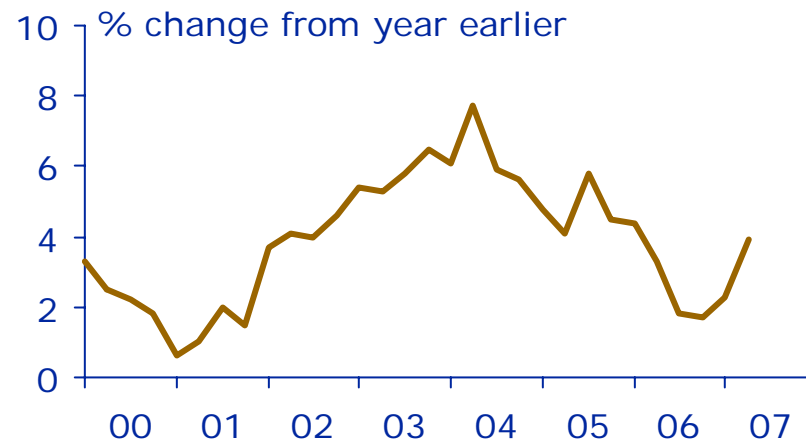
Sources: ANZ National Bank; Statistics NZ; NZ Treasury.

# Momentum has been solid over the past year

## Real GDP growth



## Private consumption growth



## Employment



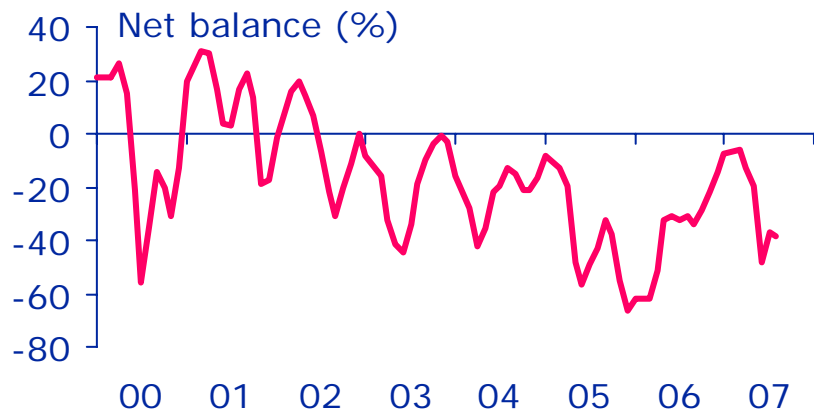
## Capacity utilization



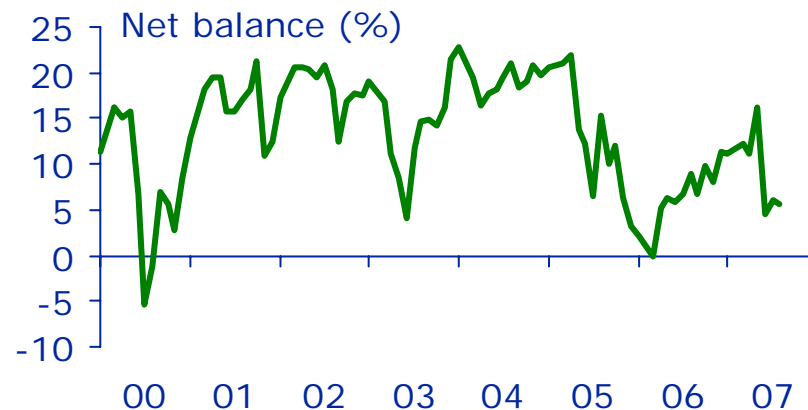
Sources: Statistics NZ; NZ Institute of Economic Research.

# However, business conditions have softened in recent months...

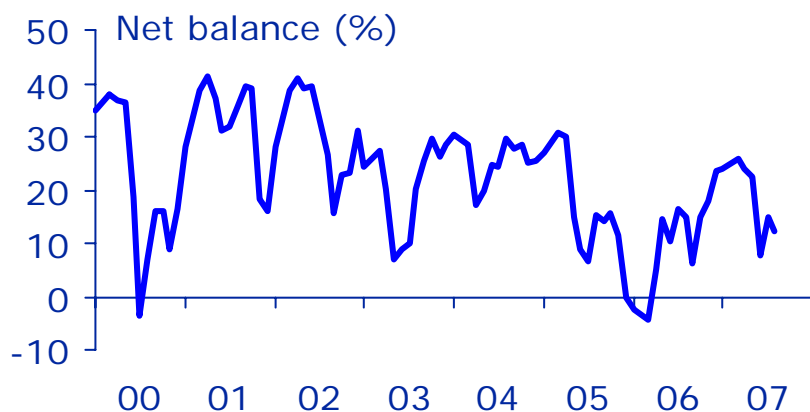
## Business confidence



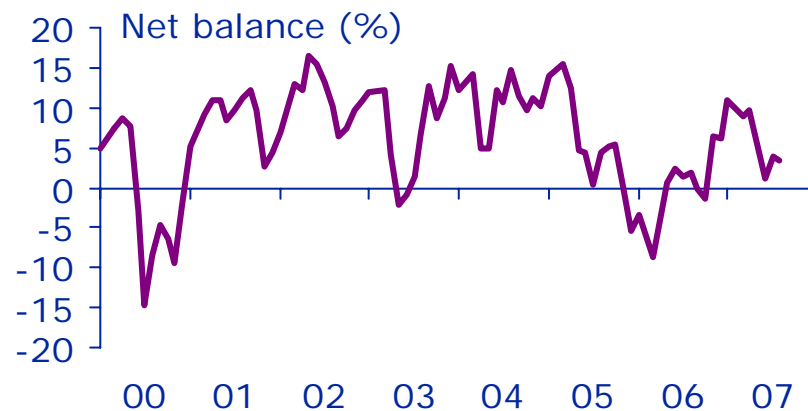
## Investment expectations



## Firms' own activity outlook



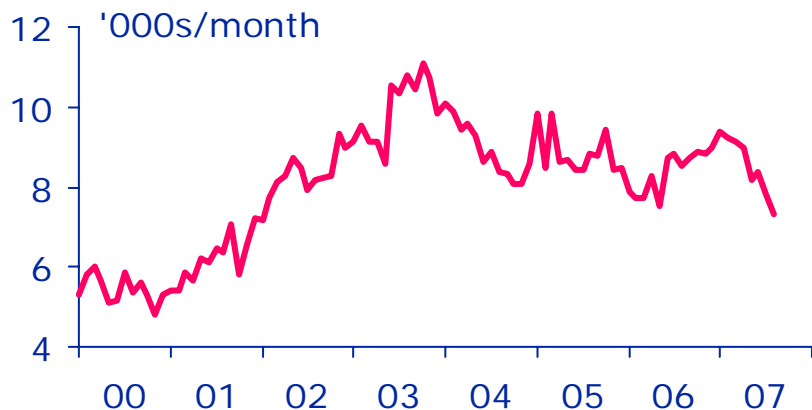
## Employment expectations



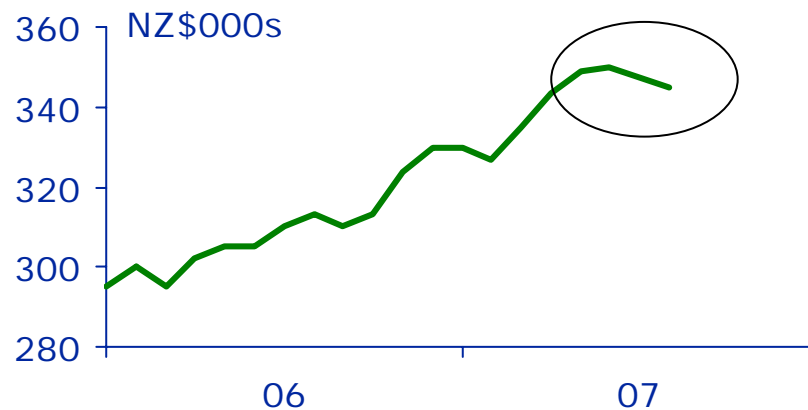
Source: ANZ National Bank.

# ...with housing and retailing starting to soften

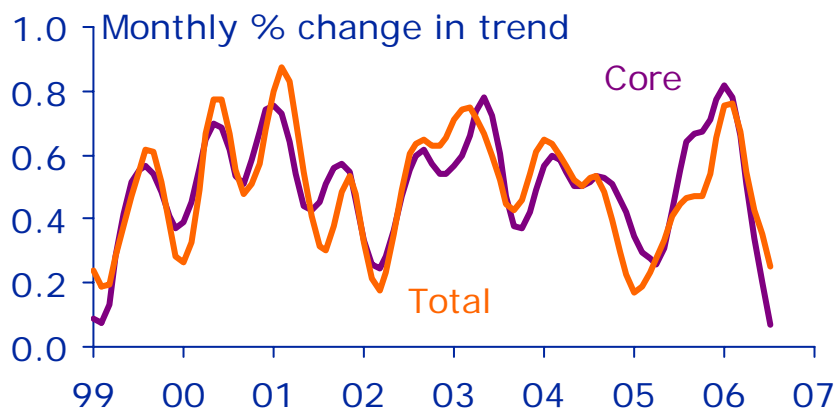
## House sales



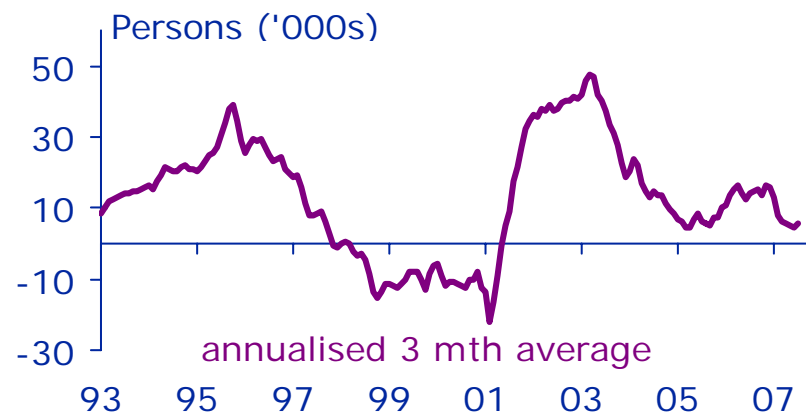
## Median house prices



## Retail spending



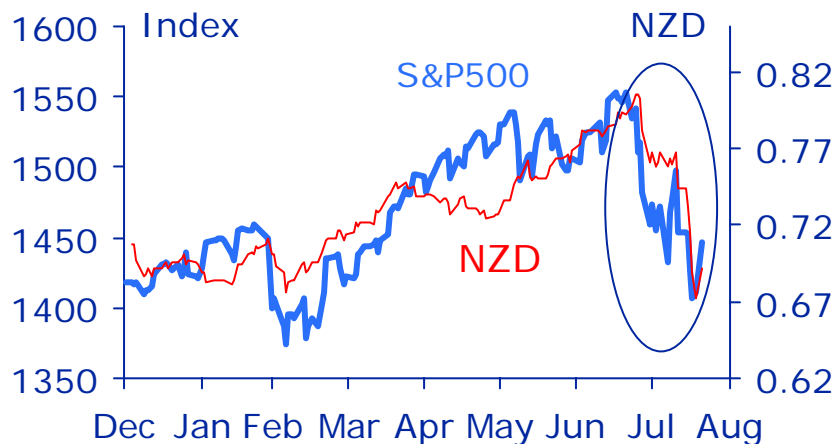
## Net migration is easing



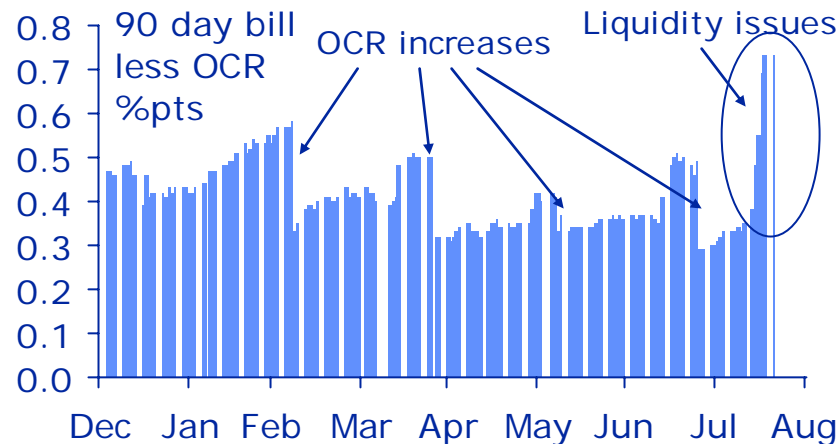
Sources: REINZ; Statistics NZ.

# NZ has not been immune to global developments and these present a key economic risk

## NZ dollar and US equities



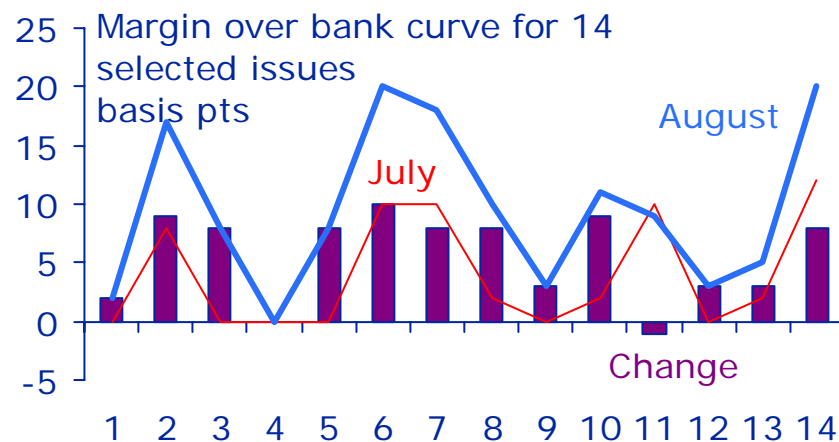
## Funding pressures



## Swap spreads



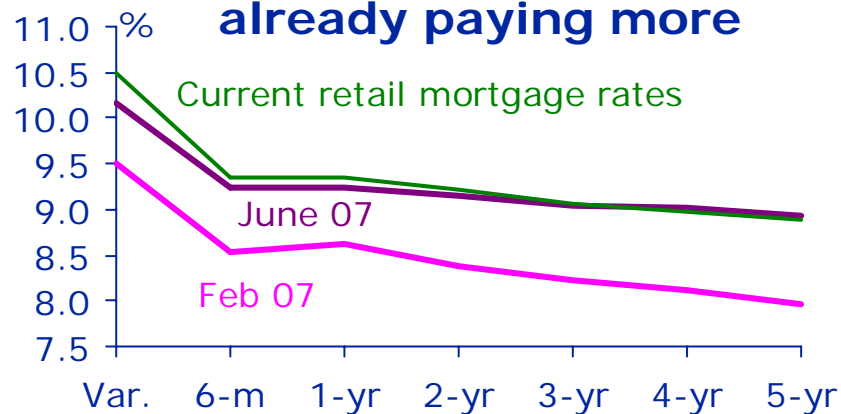
## Corporate paper margins



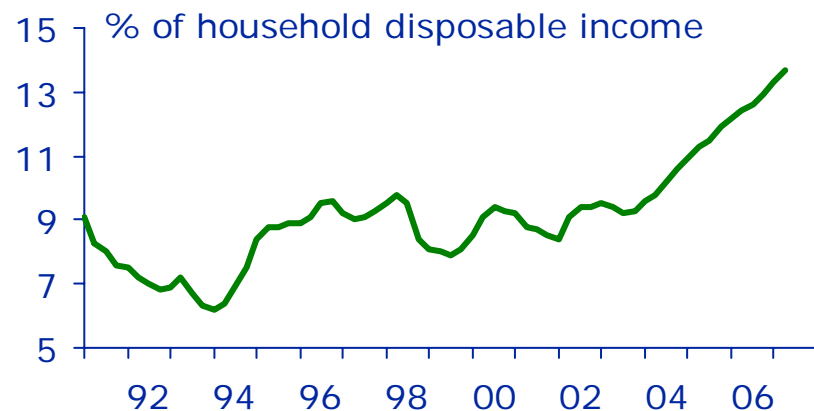
Sources: Bloomberg; Reserve Bank of NZ; ANZ National Bank.

# In an environment where risk is being re-priced, leverage is a key source of vulnerability

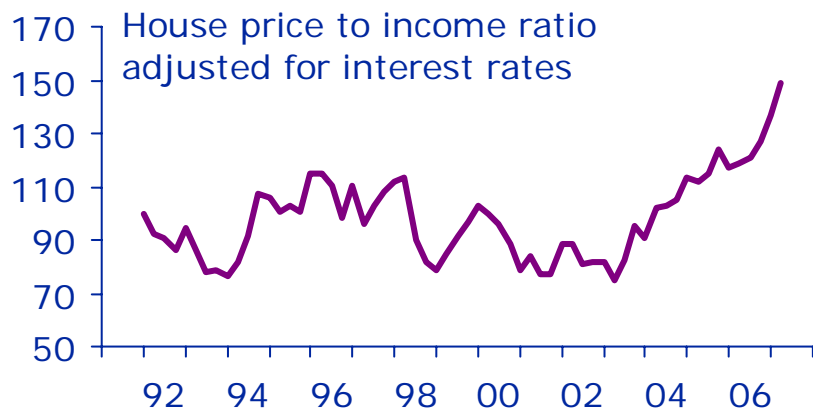
## RBNZ hikes mean households already paying more



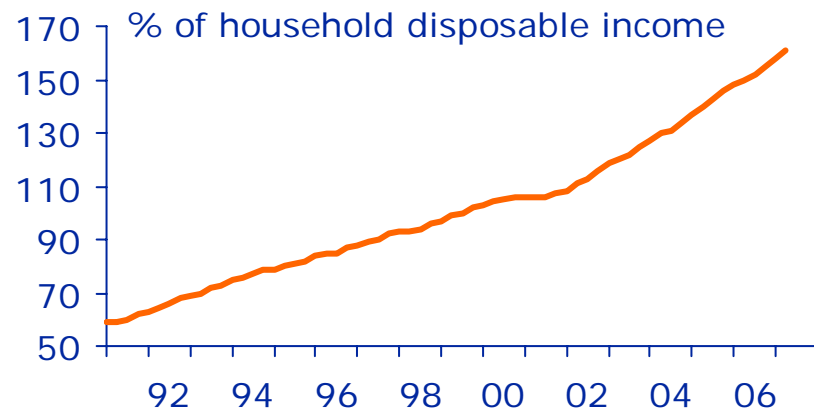
## Debt servicing



## Housing affordability

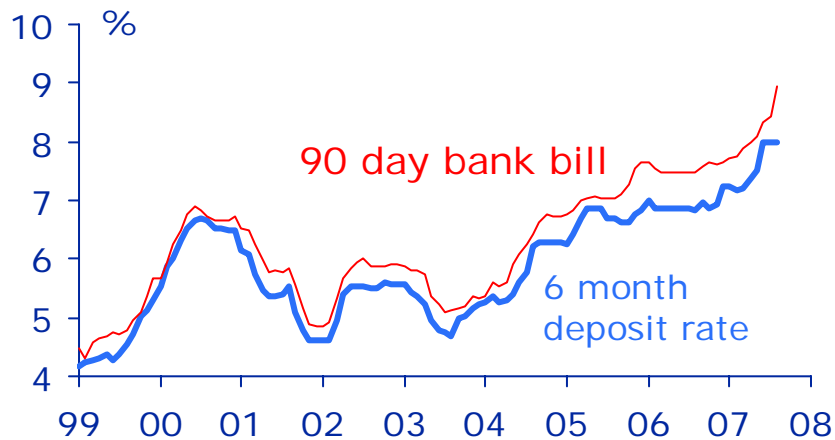


## Household borrowing

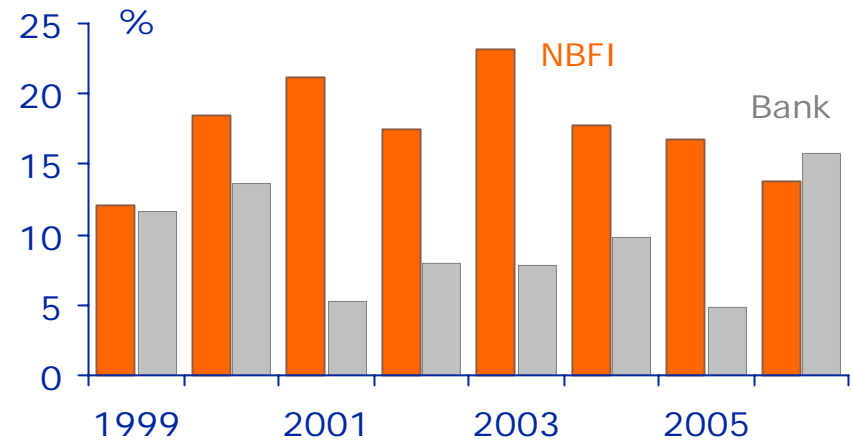


# 2<sup>nd</sup> tier (non-bank financial institutions - NBFIs) providers are expected to come under pressure

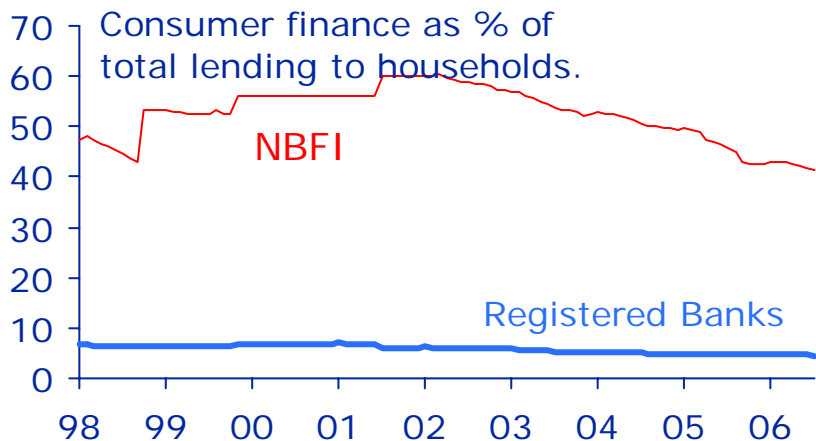
## Rising cost of funds



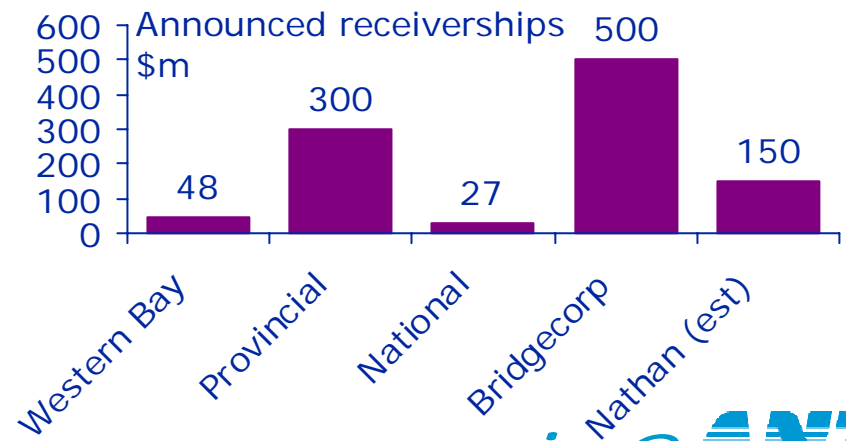
## Sizeable balance sheet growth



## Consumer finance a key area to watch



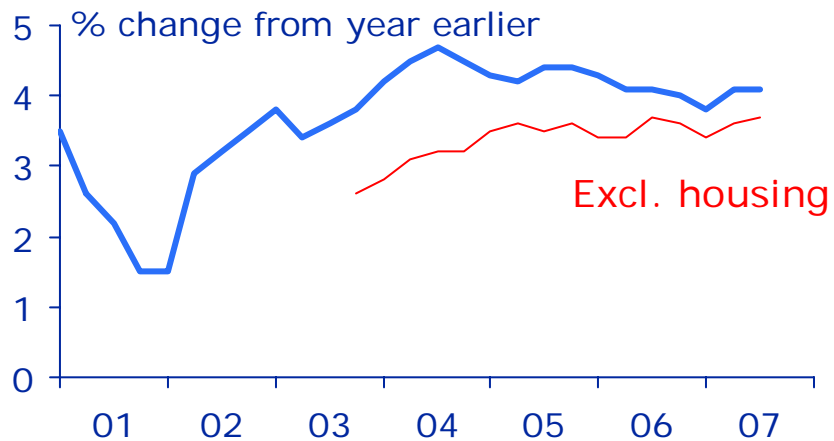
## 5 finance company collapses in past year



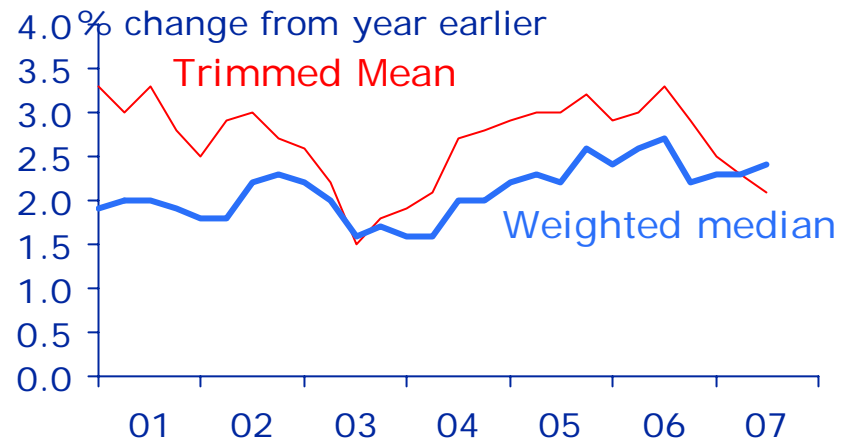
Sources: Bloomberg; Reserve Bank of New Zealand.

# Against this backdrop, inflation remains an issue, and demand needs to slow to rein such pressure in

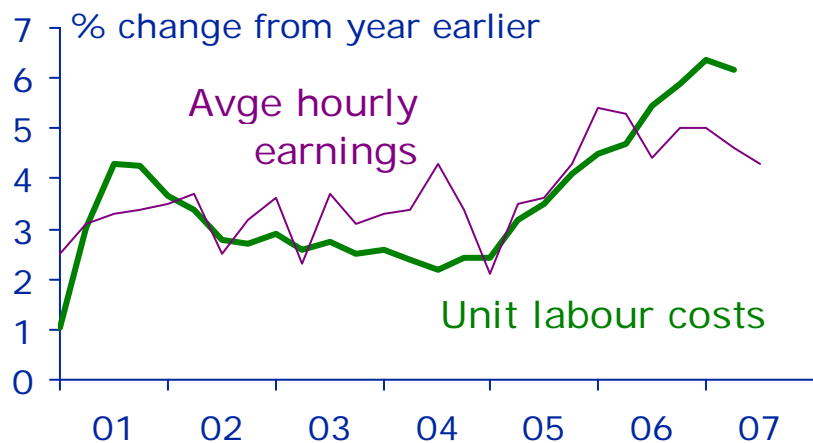
## 'Non-tradable' prices



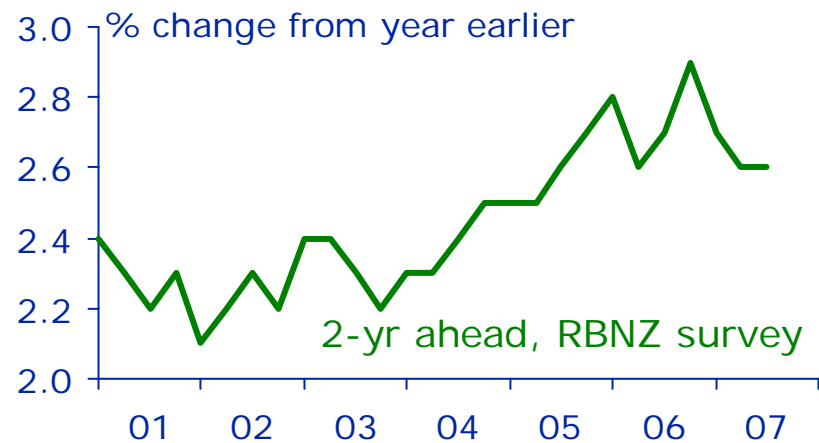
## 'Core' prices



## Labour costs



## Inflation expectations

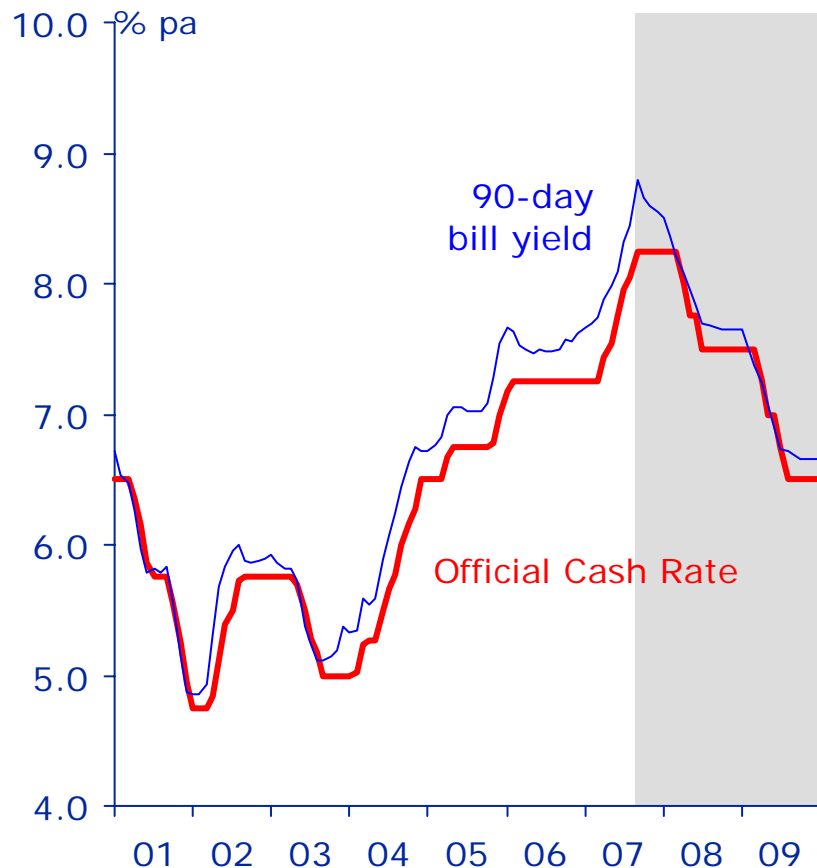


Sources: Statistics NZ; Reserve Bank of NZ.



# Next OCR move will be down ... we are now expecting the easing cycle to start in March 2008

## NZ interest rates

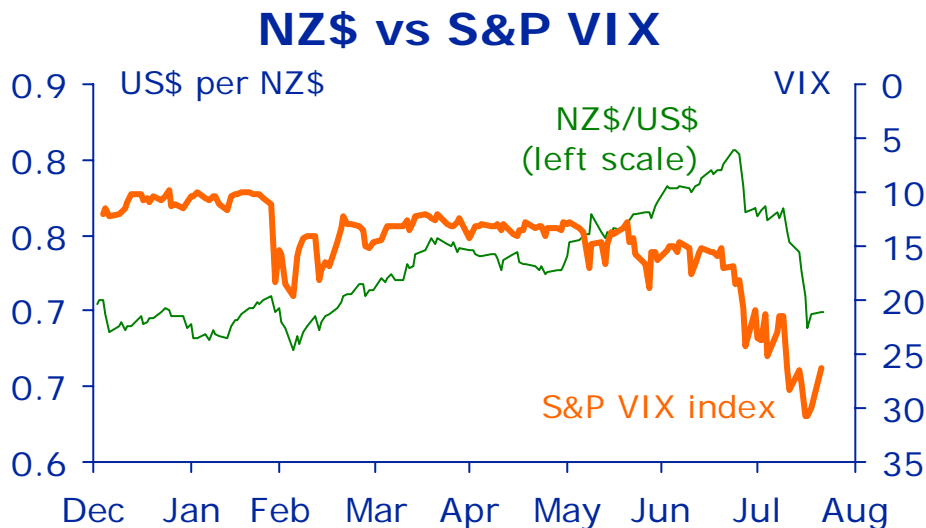
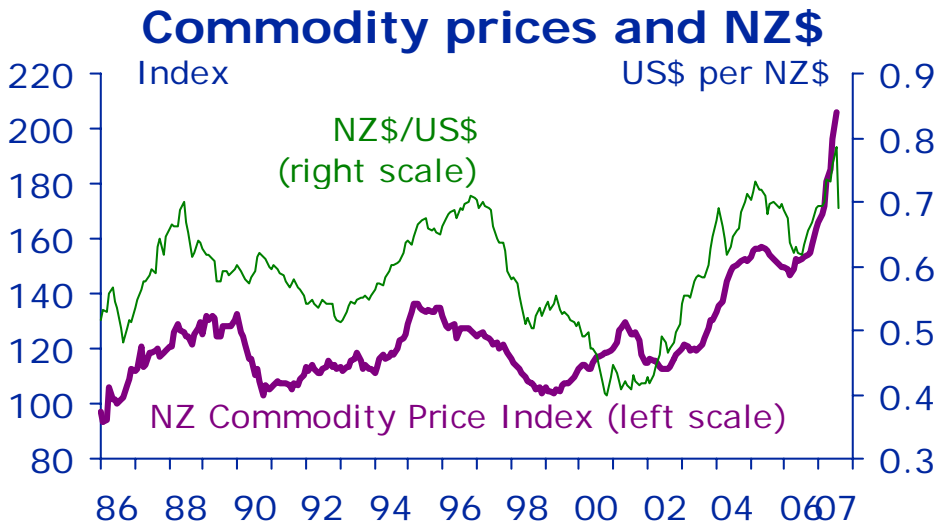


Shaded areas denote forecasts.

Sources: Reuters; ANZ National Bank.

- The Reserve Bank increased the OCR to 8.25 percent at its July OCR Review, and shifted to a conditional neutral bias
- A further extension of global credit unease could impact on the NZ economy at a time financial conditions are already tight
- “Pipeline” mortgage rate increases will maintain pressure on housing
- We are now expecting the easing cycle to begin in March 2008. This view is necessitated by what we consider to be a fundamental shift in the balance of risks facing the New Zealand economy.

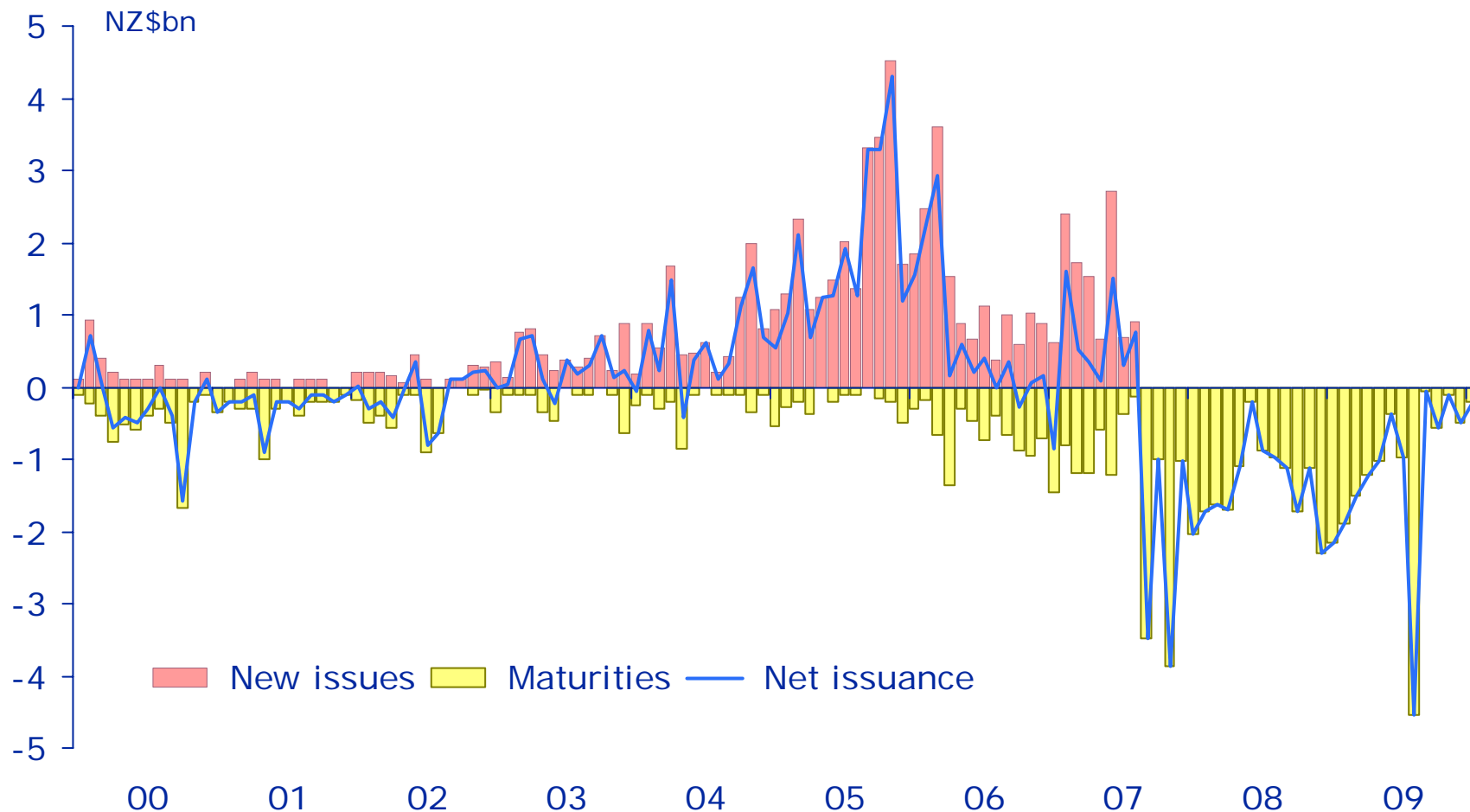
# NZ\$ has suffered worse than most at the hands of global liquidity concerns and risk aversion



- The NZ\$ posted a post-float high of 0.8110 in late July.
- Since then, global liquidity concerns and a re-pricing of risk has seen a mass exit of the carry trade and the NZ\$ has fallen sharply, and has been the worst performing of 180 currencies since late July
- In the current environment, support from interest rate differentials and strong (dairy) commodity prices will continue to take a back seat to global developments. We expect the NZ\$ to remain "heavy" and volatile

# Heavy schedule of offshore NZ\$ bond maturities will weigh on the NZ\$

## NZ\$ Euro-bond issuance

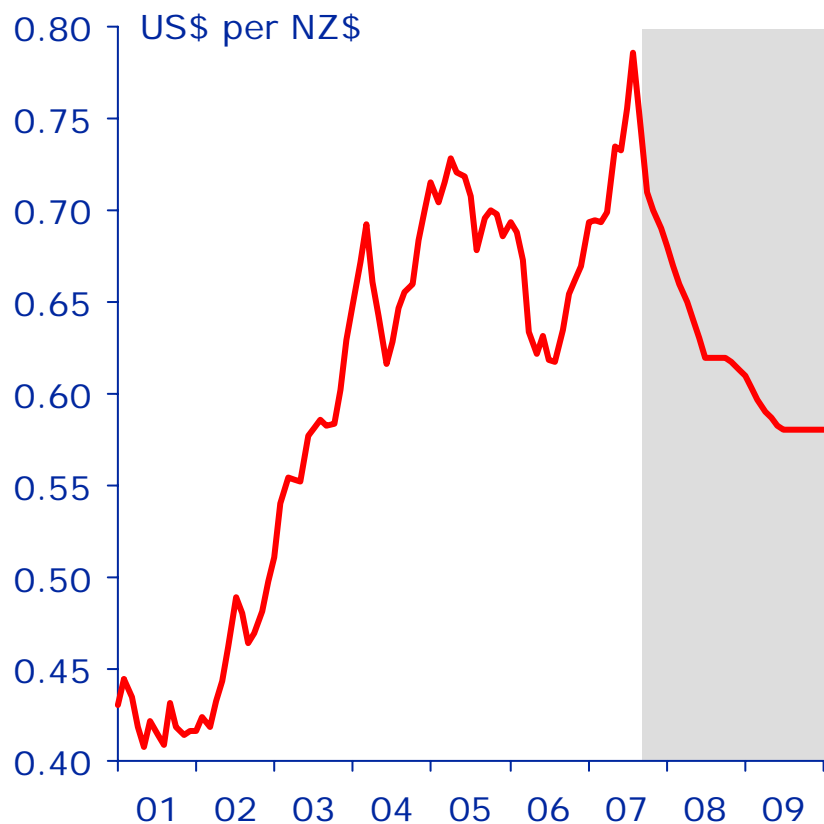


*Note:* Includes Uridashis. The profile of new issues from August 2007 onwards is of course unknown.

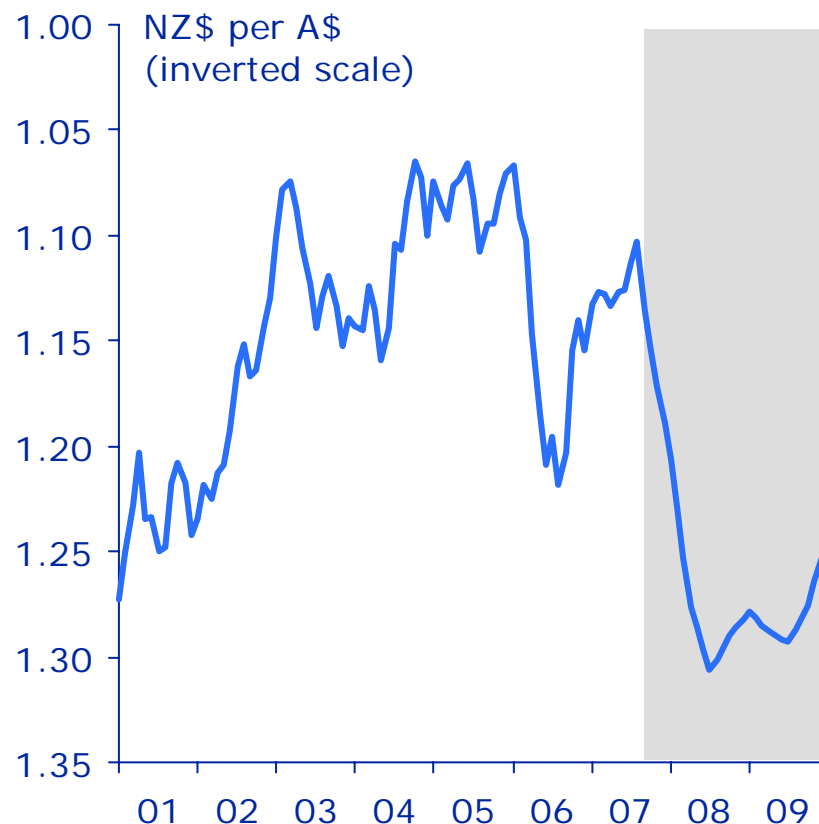
*Sources:* Bloomberg; RBNZ; ANZ National Bank.

# New Zealand dollar will continue to weaken ahead of aggressive easing by RBNZ

## NZ\$ vs US\$



## NZ\$ vs A\$



Shaded areas denote forecasts.

Sources: Reuters; ANZ National Bank.

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

- Housing lending has softened over recent months (although annual growth remains strong), and internal bank data suggests that this slowing has continued into August. However, volatility in the data, and an unstable seasonal pattern, make it difficult to be conclusive about how extensive this moderation is set to become. (Note: the softening comes on the heels of some exceptional growth in Q1)
- Credit forecasts have not been revised in view of recent events. Rather, this looks to be the mechanism by which the slowdown in our forecasts is realised

