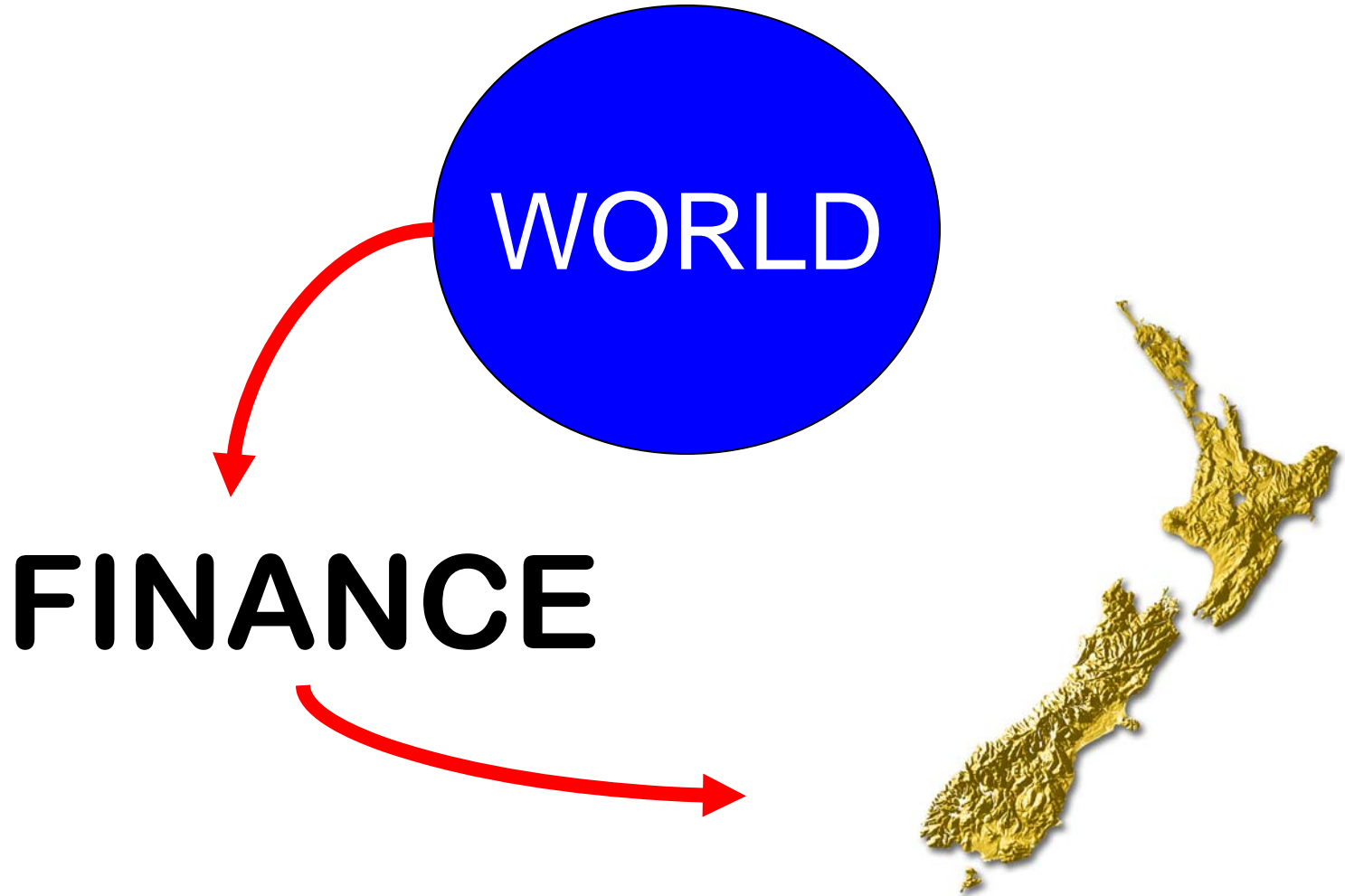


Financial impact on NZ of 2008 global financial crisis

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fxmatters

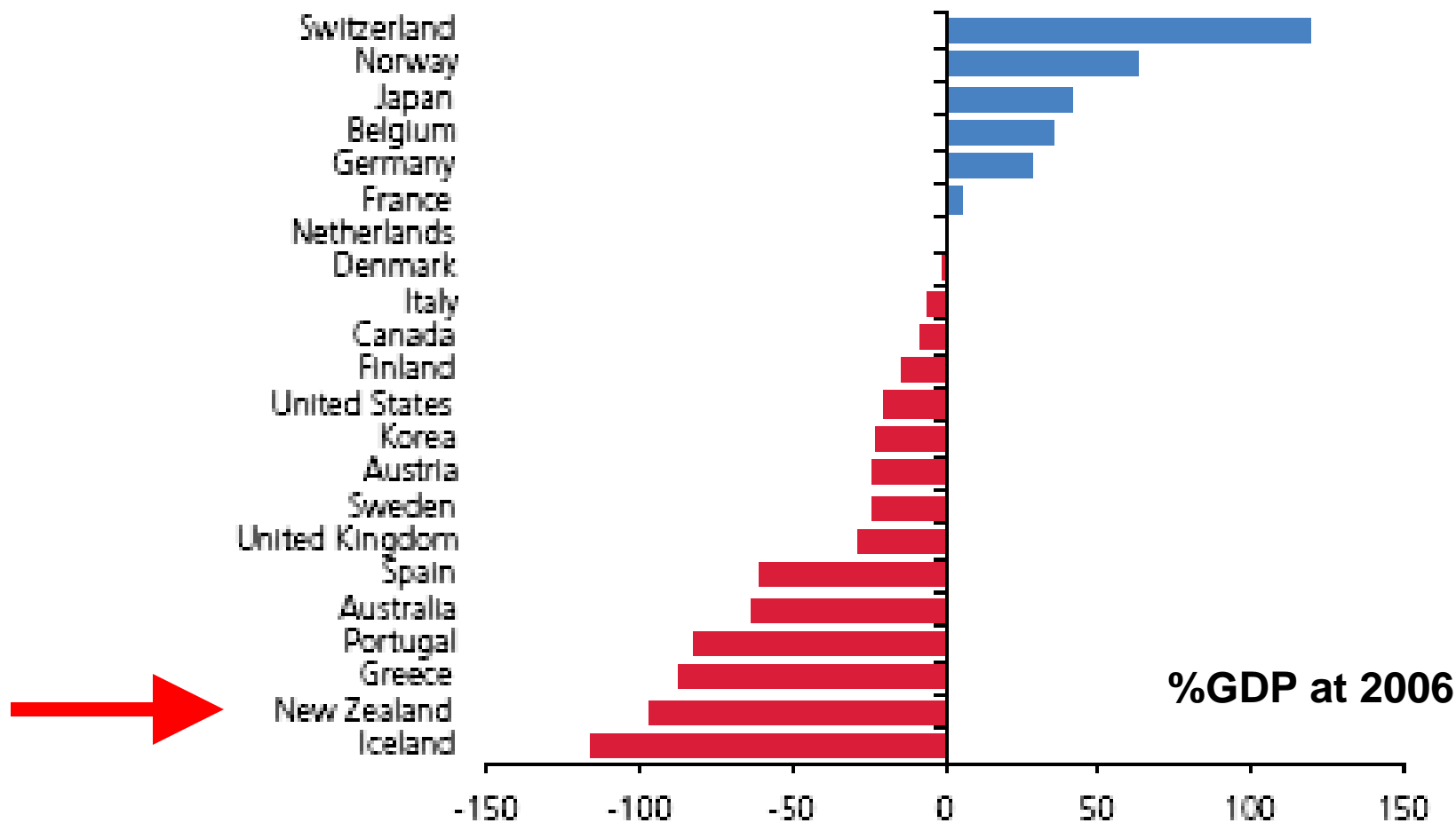
As transmitted through Finance sector



THE FINANCE SECTOR

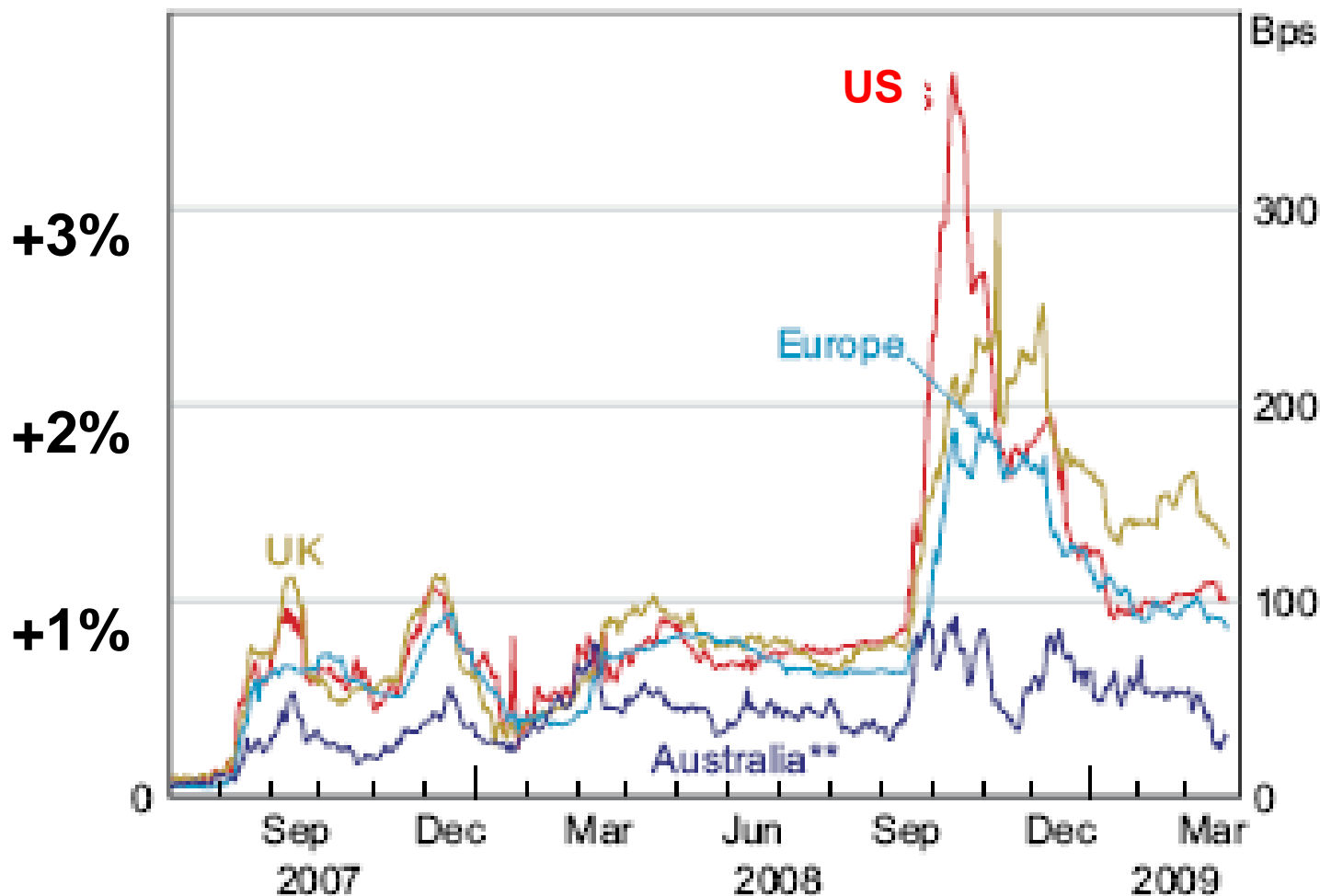
- **Indirect sources of finance**
 - **Banks (e.g. ANZ, BNZ, WPC, ASB)**
 - **Non-bank financial institutions (e.g. GE)**
 - **Pension funds (e.g. NZS)**
 - **Insurance companies (e.g. AXA)**
 - **Direct sources of finance**
 - **Money & bond markets**
 - **Share market**
-

NZ heavily reliant on offshore funding: Net international liabilities ~ GDP



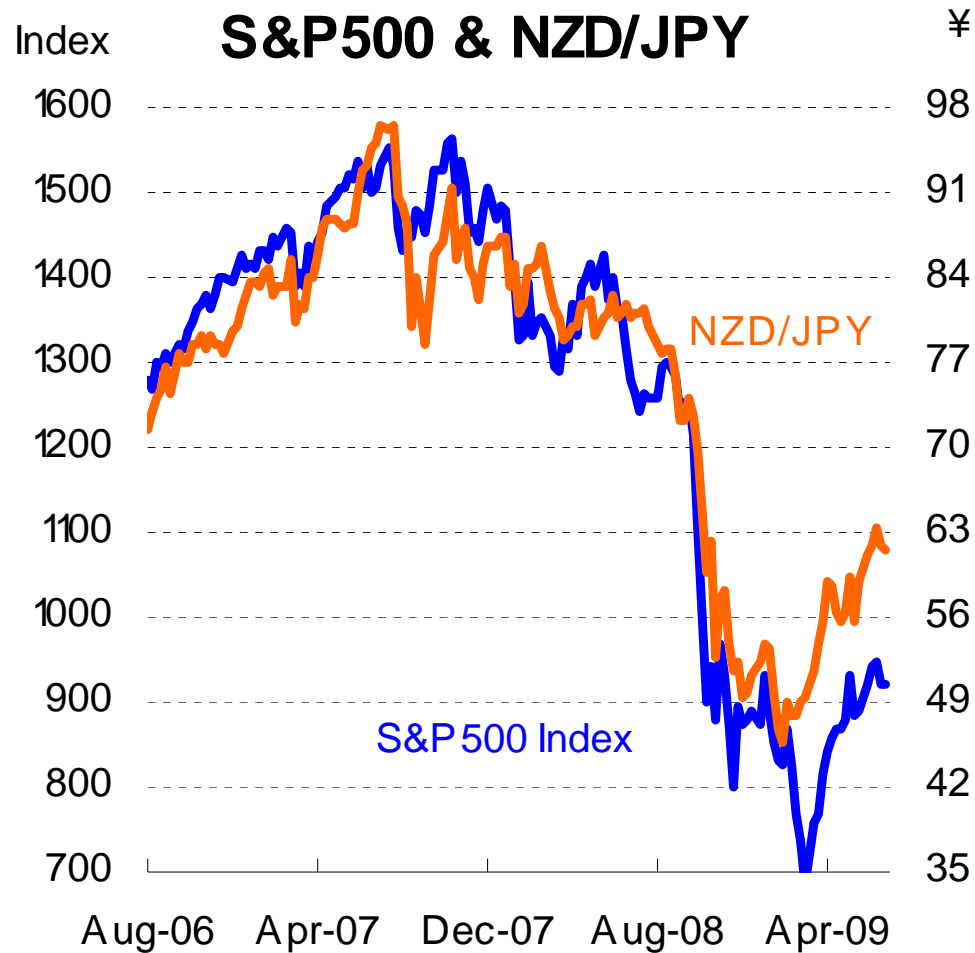
Source: Bedford, RBNZ Bulletin, Dec-08 and IMF

Debt became expensive: 3-month LIBOR minus expected cash rate up

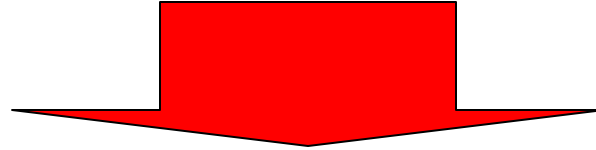


Source: RBA Financial Stability Report, Mar-09

$$\text{NZD} = \text{S\&P500} + \varepsilon$$



What happened after 9/08?



	Sep-08	Dec-08	Mar-09	Jun-09
S&P500	-5%	-28%	-7%	13%
US 10YR	-0.1	-1.7	0.6	0.4
NZ 90D	-0.6	-3.0	-1.8	-0.5
NZD/AUD	4%	2%	-2%	-3%
NZD/USD	-10%	-16%	-1%	13%
Corporate upgrades	-264	-553	-783	

How did NZ financial system cope in six months ending March?

Δ Offshore funding (\$b)	Mar-08	Mar-09
Equity	-7	-1
Bank Debt	10	15
Govt Debt	1	2
RBNZ Debt	0	1
Corporate Debt	2	0
Derivatives	0	17

- **Stable equity, more debt through derivatives**

Bank offshore debt dynamics (\$billions)

Δ Offshore bank funding (Mar-08	Mar-09
NZD	-4	1
Non-NZD from Associate	5	9
Non-NZD from other	6	-9
Associate in USD*	5	2
Other in USD*	7	-12

- **Stable Associate funding + lower NZD = (approx) offshore debt maturities**

The exchange rate as a cushion

- **NZ banks did not renew (some/all?) maturing non-NZD debt**
- **But parents maintained their non-NZD loans**
- **And each USD (JPY and EUR) went a lot further in NZ**
- **Only little use of Government-guarantee on wholesale funding**

Stats NZ: foreign debt hedged by derivatives (80%) & naturally (11%)

What didn't happen?

- × **NZ banking system implosion**
- × **Only limited reliance on new funding from offshore parents**

Who did come to the rescue?

Δ Bank funding (\$b)	Mar-08	Mar-09
TAF funding	0	7
Retail funding	7	8
cf Finance companies	-1	1

- ✓ **Reserve Bank**
- ✓ **Retail depositors (and not all from Finance companies)**

Government debt issued also +\$6 billion Sep-Mar

Back to the Derivatives

- Δ interest + Δ exchange rates >> revaluations
- NZ revaluations a net -\$2.1 billion
- \downarrow NZD >> \uparrow MTM losses on long NZD forwards
 - e.g. Fonterra, NZ investment funds
 - also impact of higher implied volatility for sold NZD Put options
- \downarrow fixed interest rates >> \uparrow MTM losses on pay fixed-rate swaps
 - e.g. Banks (think early repayment fees on fixed rate loans)

IFRS: derivatives to be marked-to-market (MTM)

Net impact on bank loans

Δ M3 assets (\$b)	Mar-08	Mar-09
Govt sec/deposit	0	6
To other M3	-2	4
Loans to residents	14	1
Household	8	2
Agriculture	2	3
Business	2	1

- **Build up of liquidity ... weak debt creation**

Impact – Business sector

- **Debt-to-equity ratios too high**
 - ∴ **Issue equity**
 - ∴ **Issue debt**
 - ∴ **Sell assets**
 - ∴ **Defer investment**
- **e.g. Contact, Fletcher Building, Fisher & Paykel Appliances, Telecom**

Impact – Household sector

- **Debt-to-equity ratios too high**
 - ∴ **Increase saving (i.e. the verb)**
 - ∴ **Sell assets**
- **Interestingly ... credit card debt is not increasing**
 - **Hints at lack of debt accumulation**
also reflects increased desire to save

Impact – Agriculture sector

- **Debt-to-equity ratios too high**

- ∴ **On-farm: ask bank for more!!!???**

- ∴ **Fonterra: Sell assets, Issue equity, Issue debt**

- **Role of inventories & derivatives**

Other impacts of market pricing

- **Valuation issues**

- **Appropriate discount rate?**
- **Appropriate benchmark pricing?**

- **101 Finance**

- **diversification (of funding in this case)**
-

Summary – it ain't over yet

- Wide reaching financial impacts
 - Banks coped ...
 - BUT ... lending criteria have tightened
 - AND ... people/firms *probably* prefer lower debt/equity ratios
 - Suggests REBALANCING continues
 - Pass the bubble
 - Dotcom >> Bonds >> Property >> ???
 - In NZ ???
-

But let's not get too pessimistic

- **Our financial system did cope**
 - **and will cope**
 - **NZ public debt is low**
 - **Foreign investors remain keen**
 - **So it's back to reality i.e. real goods and services**
-