RESERVE BANK OF NEW ZEALAND

# Coping with global financial and economic stresses

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## 1. THE GREAT TURBULENCE

The period known as the Great Moderation has ended. That era, roughly dating from the mid-1980s to the mid-2000s, was characterised by strong growth, low and stable inflation, and internationalisation of trade and financial flows. By the end, it was also associated with very large imbalances of savings and investment, and a consequently very large increase in the stocks of credit outstanding. These imbalances and excessive credit stocks remain evident at the household, business and national levels.

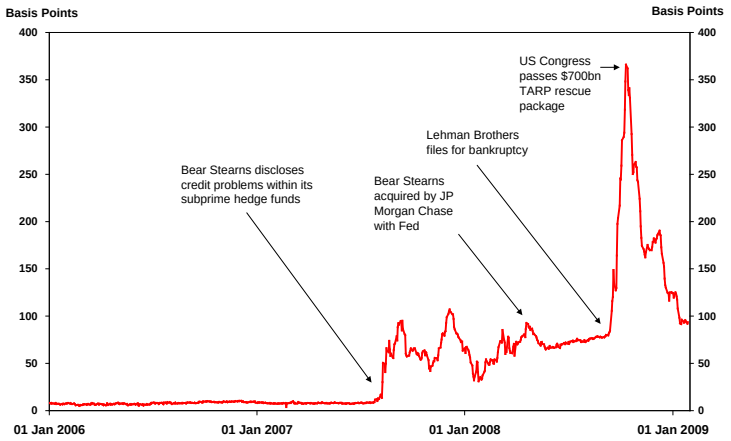
The process of correction to these imbalances has revealed vulnerabilities in the world's major financial institutions and financial systems. The supply of credit is under severe contractionary pressure, putting immense pressure on economic activity everywhere. Central banks, financial regulators and governments around the world have taken, and are continuing to take, extraordinary action to limit the damage to the financial system and global economy.

This speech looks at what the next few years may bring. I first review the story so far, in the international and domestic economies. I then look at how the correction process might play out over the coming year or so. New Zealand is better-placed than many of our trading partners to weather the crisis. This is for both structural reasons, and also because of the remedial policy actions we have already taken and are positioned to take if necessary. Finally, I discuss the road ahead. I look at how New Zealand households, firms and banks can be expected to cope with the stresses, and how we will use policy to smooth the ride where we can.

## 2. THE STORY SO FAR

Since the onset of the crisis in 2007 there has been a rapid-fire succession of extraordinary events and policy interventions. Some of the higher-profile triggers of market volatility are shown in Figure 1, overlaid upon the spread between US short-term interbank interest rates and the market's expectation of future official interest rates. Normally this spread is close to zero. The difference from zero is a measure of the level of financial market dysfunction. As Figure 1 shows, this measure of dysfunction waxed and waned considerably through the period, but was substantial throughout.

**Figure 1. Disruptive events and the US 3-month LIBOR-OIS spread**




Source: Bloomberg

This is but a small fraction of everything that has been relevant, for obvious reasons of space. In the rest of this section I try to knit it together into a single story, probably risking oversimplification along the way. The narrative here is necessarily linear, but that obscures many important feedbacks and interactions. These feedbacks are a very real part of understanding and coping with the turmoil.

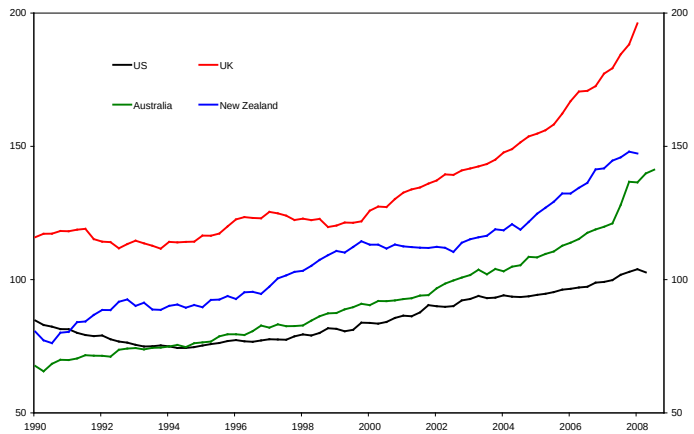
It is no accident that the massive simultaneous surges in the prices of commodities, equities, housing and other real estate around the world since the mid-2000s until 2007 matches the surge in credit. In hindsight, this correlation can be explained fairly simply as the mutual reinforcement of a number of powerful factors. Emerging market countries, especially in Asia, ran high rates of national savings out of the earnings from strong export-led growth. As world oil prices surged, national savings in oil exporting countries also increased rapidly. Finally, the developed world ran fairly loose monetary policy as part of the recovery from the 2000-01 recession. In this environment, the premium charged for credit risk fell to low levels through the middle part of the decade (Figure 2). The growth in asset prices in the latter part of this period increased capacity for secured borrowing, adding further stimulus for credit growth.

**Figure 2. Spread between US 10-year sub-investment grade corporate bond yields and US government bond yields**


Source: Datastream

Together, these factors enabled the funding of an extraordinary rate and diversity of financial innovation and credit creation in the developed world, and very substantial increases in the ratios of credit to GDP in developed countries, particularly the UK (Figure 3).

**Figure 3. Credit-to-GDP ratio**




Sources: IMF, Datastream.

Also fuelling the credit growth through the period was a shift of the major US and European banks away from the traditional "originate to hold" banking model towards an "originate to distribute" model, which for a range of reasons was seen as more profitable. In "originate to hold", mortgage and other credit originations typically stay on the originating bank's balance sheet until maturity. In "originate to distribute", the credit originations are securitised and sold, removing them from the originating bank's balance sheet. A typical securitisation would involve, along the way, the creation and sale of derivatives based on the securitised exposures, further increasing the fee-earning potential of the underlying origination in an environment of voracious demand for risk.

"Originate to distribute" enabled a greater amount of credit creation to be supported by the same amount of financial system capital. It also made it harder for the institutions involved in the process of credit supply and derivative creation to assess their credit risk exposure and price it, because of the greater number of independent institutions involved, and the complexity of the transactions and instruments. The institutions involved came to depend on credit rating agencies for the apparently simple risk summary contained in a credit rating.

In the event, the rapid growth and diversity of financial institutions and products ran well ahead of the ability of financial institutions to understand their risk positions, of rating agencies to translate the new exposures that were created, and of regulators to ensure that financial institutions were managing risk prudently. Long-standing, well-conceived banking practices were abandoned as financial institutions focused on maximising short-term profitability. The mutually reinforcing strengths of real and financial demand showed up first in rising prices in the commodity and asset markets. As debt-funded consumption and investment in the developed world surged, generalised inflation pressure began rising.

As suggested in Figure 1, the first obvious signs of credit over-extension appeared in mid-2007, as credit impairment on US subprime mortgage exposures began to surface. Money market spreads rose quickly in the US and Europe as frictions emerged in the cash markets. Soon, the credit quality and liquidity of other types of asset-backed securities and derivative instruments became subject to doubt. The frictions spread further and markets in which risk is traded away became dysfunctional. Financial institutions became increasingly unwilling to deal with each other as uncertainty about who was exposed, and how badly, became more and more enlarged.

As 2008 progressed, it became obvious that the financial dysfunction was taking a lot longer to clear than expected. Innovative products with strong credit ratings proved less than robust. Unanticipated concentrations and correlations of risk were suddenly revealed – including within the largest global banks and credit insurers. The substantial increase in the diversity and sophistication of financial products and institutions turned out not to have reduced systemic risk through diversification. The fragmentation of risk had not enabled individual institutions efficiently to isolate, hedge and transfer risk. Understanding of risk had become lost in translation as risk was traded across institutions and national borders. Measured regulatory capital that had seemed bountiful up until 2007, now looked thoroughly inadequate.

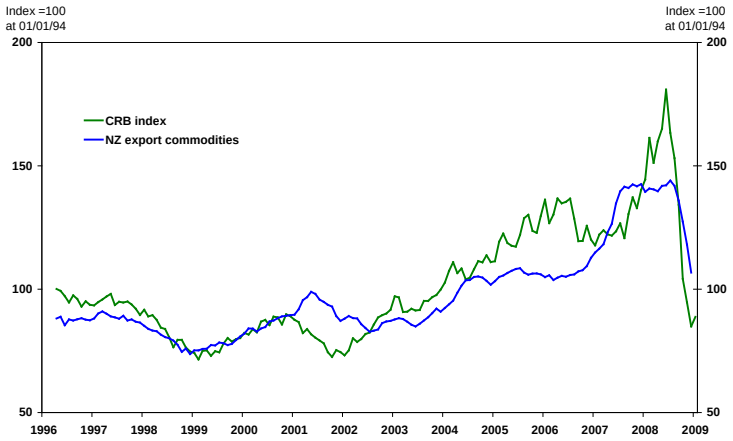
When risks began to crystallise and losses emerge, the destabilising triggers of ratings downgrades, asset price declines and market illiquidity turned out to have more viciously compounding effects on credit availability than anticipated. The willingness of financial institutions to deal with each other broke down. The continued operation of the global financial system turned out to depend on a far larger number of individual markets and institutions than

had been assumed. Liquidity bottlenecks in some arcane products and markets, such as monoline bond insurance, became suddenly obvious.

US and European financial system conditions deteriorated significantly in the second half of 2008, especially following the failure of the major US investment bank, Lehman Brothers, in mid-September. Other sizeable financial institutions in the US and Europe – including AIG, the world's largest insurance company at the time – failed or were restructured during this time. Confidence and the sense of rational discrimination by investors and depositors among Northern Hemisphere financial institutions evaporated.

The feedback between increasingly restricted credit and the slowdown in the housing market and general economic conditions became much more significant. Drastically revised prospects for world growth produced a commodity price slump (Figure 4).

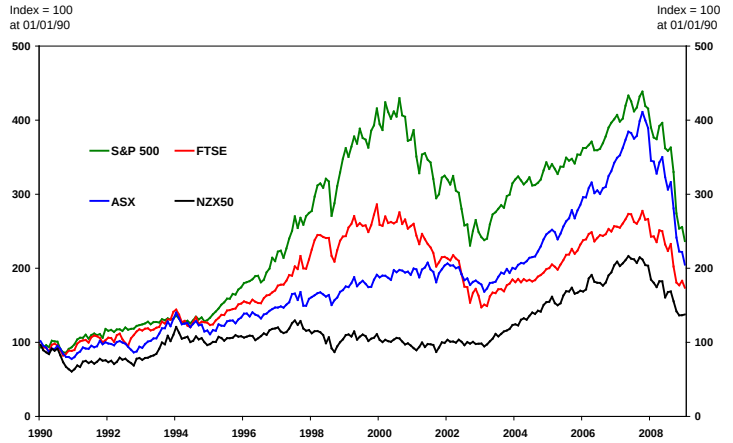
**Figure 4. The cycle in international commodity prices**




Sources: Bloomberg, Reuters

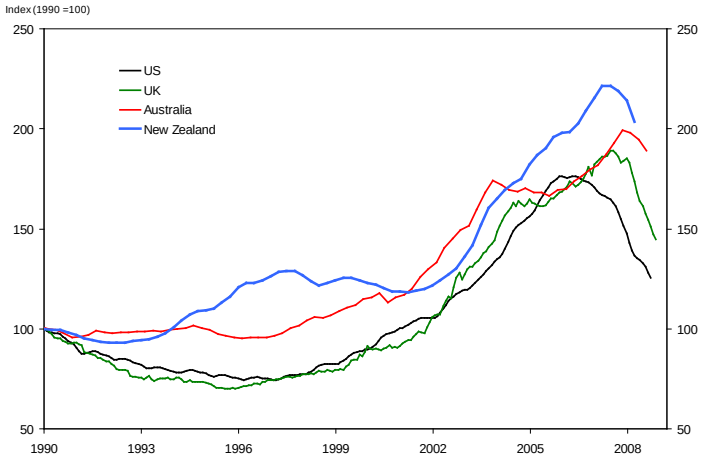
By the end of the year, world equity markets had lost in the order of US$30 trillion – half their value (Figure 5). Real house prices in the US and the UK had fallen from their peaks by a third and a quarter respectively, with still no sign of deceleration in their rates of descent (Figure 6).

**Figure 5. Equity prices**




Source: Bloomberg.

**Figure 6. Real house prices**




Sources: National data sources, Datastream, RBNZ estimates.

The synchronisation of equity market cycles across the world has been remarkable, not least because it has included parts of the world with financial systems less directly affected by the problems in the US and Europe, such as most of Asia. The degree of synchronisation in house prices, though, is even more historically unique. It has occurred mainly, but not entirely, in the major English-speaking countries (including New Zealand and Australia), where the increase in household leverage was particularly enthusiastic.

Combining the plunges in value of these two major asset classes implies that households, businesses and sovereign wealth funds all lost massive amounts of wealth. The fall in US house prices alone suggests a typical loss of half the wealth of households in their prime earning years – more than US$50,000 for every US homeowner, or US$4 trillion in total.[2]

*The international policy response*

Through the turmoil, the authorities in the major Northern Hemisphere economies escalated their responses, as it became clear that successive interventions were at best only holding back the tide.

The initial response to the deterioration in liquidity conditions in 2007 was an increase in central bank money market operations, designed to increase the volume and availability of cash in the banking system. Variously, central banks widened the range of collateral they would accept in return for cash, relaxed the conditions on which they would grant emergency lending, encouraged banks to use emergency lending facilities, and arranged swap lines with each other to ease foreign exchange shortages in offshore markets.

Troubled financial institutions had to be rescued with the use of public funds, in cases where the institution's failure was deemed to be a threat to the stability of the system. The UK government announced a blanket guarantee of all deposits of Northern Rock, the mortgage lender, in September 2007. Major US investment bank Bear Stearns was acquired by JP Morgan Chase with financial assistance from the US Federal Reserve in a deal announced in March 2008.

Subsequently, as the problem widened and developed into widespread public concern about the fundamental solvency of some major financial institutions, governments in many countries

[2] Baker and Rosnick (2008).

moved to restore confidence with more sweeping measures. The coverage limits under deposit insurance schemes were extended or, in some countries, removed altogether. System-wide guarantees of other bank liabilities were introduced also.

In the second half of 2008, central banks responded to the intensifying risks to the economic activity with rapid reductions in official interest rates, in some cases coordinated. Many governments announced large fiscal stimulus packages.

The large-scale nationalisations of the financial system and acquisition of financial risk in the Northern Hemisphere have distorted incentives, and this will have to be addressed in the future. More immediately, the expansion in the public balance sheet, combined with the financing burden of the fiscal stimulus packages, have reduced fiscal resilience and constrained the scope for future fiscal action. The elevated risks to fiscal and external sustainability are already being priced and watched closely by sovereign credit rating agencies. The ratings of a number of Northern Hemisphere countries have already been downgraded.

*The New Zealand version*

The emergence of money market frictions in the US and Europe in the second half of 2007 spilled over onto New Zealand shores instantly. The spread between local short-term interbank interest rates and expectations of official rates rose, reflecting the increased premium on liquidity worldwide. However, although there was a degree of friction in trading conditions, money generally continued to flow.

As a precaution, the Reserve Bank introduced a range of measures to expand the scope of our money market operations, along the lines of those taken by central banks elsewhere, in order to ease the liquidity pressures that had emerged in the local interbank market. As the international turmoil continued into 2008 and deepened, we broadened our liquidity facilities further, primarily as a precaution to ensure that the banking system could handle any additional liquidity pressures were they to arise.

The international financial turmoil arrived at a time when a number of local finance companies were already under pressure, largely due to credit weaknesses specific to that sector and to particular institutions. The failure rate in the non-bank deposit-taking sector increased as funding became more difficult to obtain. However, the solvency of the core New Zealand financial system was not in doubt, and still is not. We stepped up our usual prudential supervision activities with banks, both to increase the chances of detecting problems and to ensure that banks themselves were doing everything they could to mitigate their liquidity and other risks.

Table 1 lists the major changes to Reserve Bank's liquidity facilities and liquidity management processes to date.[3]

**Table 1. Changes to New Zealand liquidity management arrangements**

| Announcement date | | Measure |
|---|---|---|
| 2007 | 23 Aug | Eligibility of New Zealand bank bills for acceptance in the overnight reverse repurchase facility |

[3] See Nield (2008) for more explanation of the Reserve Bank's recent changes to liquidity management arrangements.

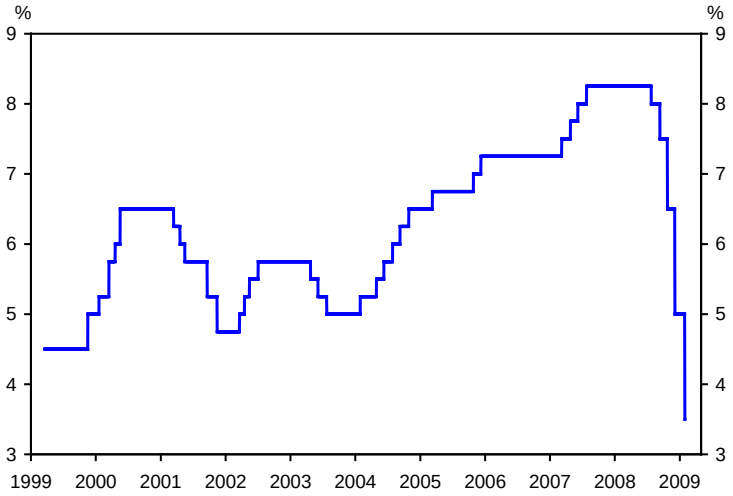
| | | |
|---|---|---|
| 2008 | 7 May | Eligibility of AAA-rated New Zealand residential mortgage-backed securities and New Zealand wider government sector debt for acceptance in Reserve Bank liquidity operations |
| | | Extension of the maximum term of the overnight reverse repurchase facility from one day to 30 days |
| | 9 Oct | Eligibility of residential mortgage-backed securities in Reserve Bank liquidity operations prior to the securities receiving formal ratings |
| | 29 Oct | Establishment of reciprocal currency swap line with United States Federal Reserve |
| | 7 Nov | Introduction of Term Auction Facility for injection of cash for terms up to 12 months |
| | | Introduction of Reserve Bank bill tender |
| | 12 Dec | Eligibility of highly rated New Zealand corporate securities and New Zealand dollar asset-backed securities in Reserve Bank liquidity operations |

The Australian and New Zealand Governments also introduced guarantees of bank liabilities around the time that they were introduced offshore. In the New Zealand case, it was seen as prudent to ensure that depositors remain confident in an environment of extreme global risk aversion and uncertainty. The guarantee of wholesale liabilities was a precaution to maximise the ability of local institutions to participate in international funding markets while they remained disrupted.

In our monetary policy operations, we monitored the weakening in the domestic economy for signs of pressure coming from the international credit turmoil. Domestically it was clear that the economy was weakening from the housing downturn, although there were offsetting factors from commodity prices remaining fairly high and the Asian and Australian economies remaining fairly robust, until quite late. The Reserve Bank began cutting the OCR in July 2008, in response to the weight of accumulated evidence pointing to reduced need for tight monetary policy. This was despite headline CPI inflation having reached 4 percent for the year to June 2008, mainly due to the influence of record high petrol prices.

During the worst months of 2008, as the rate of deterioration in the outlook sharply increased, we cut the OCR in steps that are very large by the usual standards of monetary policy operation (Figure 7). The rapid abatement of medium-term inflation pressure in New Zealand was such that we saw, and still see, a period of monetary stimulus as now warranted to keep inflation consistent with the target.

**Figure 7. New Zealand Official Cash Rate**




Source: RBNZ.

## 3. THE ROAD AHEAD

We are now in a period where financial, monetary and regulatory policymakers around the world are fully occupied in understanding the mess, and in making the transition back to more normal economic conditions as orderly as possible. At the same time, underlying the cyclical volatility and noise are longer-run structural shifts and trends that policy needs to allow to come through.

*Booms and busts*

The extraordinary surges then collapses in global credit, asset and commodity prices all now resemble, with the benefit of hindsight, overshoots followed by undershoots. The reversal in the price of credit and tightening in credit availability has been extremely abrupt. Most countries are not yet seeing slowing credit volume growth, due to the masking effect of drawdowns of existing credit lines. However, major international financial markets and banks are now much less willing, or completely unable, to provide new funding, even at very high spreads and with various forms of government support. Anomalous pricing and the breakdown of normal arbitrage between markets is widespread. These are not normal conditions, but an over-correction that should reverse over time as confidence and capacity to trade return.

If history is a guide, housing and equity markets will also overshoot, or may have already. Housebuilding activity in the US has essentially ground to a halt, but the US population continues to grow and needs somewhere to live. Some overshoot of house prices on the downside is probably unavoidable to restart demand for housing and, eventually, new investment. The question is how to limit the downside's extent. Similarly, while there is undoubtedly an overhang of investment at inflated asset prices to be worked off, equity price falls below fair value are how markets typically work to generate opportunities too attractive to pass up.

Finally, the commodity price rise and fall is very large. Oil prices alone quadrupled between 2004 and 2007, before crashing back to the 2004 levels where they are currently. Explaining price movements, let alone gleaning the medium term trend in prices, is very difficult in liquid markets with limited short run supply elasticity. On balance, the underlying trend in real commodity prices over coming decades is probably still upward. Financial market hubris

during the upswing, and its opposite in the downswing, probably played a significant role in amplifying the cycle.

The fundamentals of supply and demand continue to argue compellingly for underlying strength in prices. For dairy products, for example, we still believe emerging market incomes will grow strongly over the medium term, underpinning growth in demand for protein and a more Westernised diet. For hard commodities, the physical and technological constraints on supply seem difficult to surmount. Whatever the case, large swings in commodity prices seem likely to remain with us in coming years, as supply and demand pressures lever more strongly on limited inventory buffers.

Very noisy signals in credit, asset and commodity prices have resulted in what now look like material misallocations of resources in a range of industries over the past few years. Here in New Zealand, there has been a dairy land price boom, which has spurred large amounts of investment in dairy-related industries, in some cases highly leveraged. The house price boom does not seem to have left us (or Australia) with a significant oversupply of housing (unlike the US, for example). It has, though, produced a large increase in household and developer leverage.

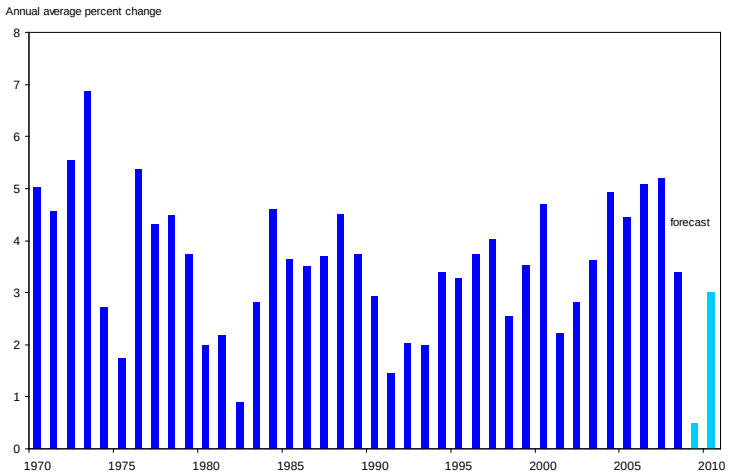
*The global recession*

Comparisons of the present world recession to previous recessions, and even to the Great Depression of the 1930s, are rife. To be clear, the state of the global economy and the outlook are very serious, but we are nowhere near Depression-level economic conditions. That said, we can certainly learn from the Depression experience.[4] Then, as now, the global financial system became seriously incapacitated. Concerns about the state of the international economy came in waves. In the present case, markets would take heart from announcements of major official intervention, such as the bailout of the major investment bank Bear Stearns in the US, to be followed by new bouts of adverse news and further reversals of confidence, such as in response to the non-bailout of Lehman Brothers.

However, in macroeconomic terms the outlook is considerably better. In world growth terms we are somewhat below the early 1980s recession – that is, worse than the growth troughs in the early 1990s and early 2000s (see Figure 8). Unemployment rates will certainly continue to rise, but peak well short of the levels reached in the Depression. Then, unemployment rates rose well above 20 percent in many cases. Policy frameworks were much less well-equipped to handle the slump. In some cases, policy responses such as tightening of some fiscal settings and trade protectionism, and prevailing macroeconomic management frameworks such as maintenance of the gold standard, seriously exacerbated the initial problems.

[4] See Reddell and Sleeman (2008) for an overview of economic conditions in New Zealand at the time of the Depression and other periods of major economic weakness.

**Figure 8. World GDP growth since 1970, and IMF forecasts for 2009-2010**




Sources: IMF, Datastream.

Compared to previous global recessions, the current one has some distinguishing features. It originated in the US financial system and quickly spread to the European one, eventually spreading across most regions of the world – but by different means. In the European case, the financial system vulnerabilities were both directly generated by US-originated credit exposures, as well as through a sharp reappraisal of the consequences of the credit boom and adverse relaxation of credit standards within Europe itself. Elsewhere, and especially in Asia, the transmission has been through more conventional trade and commodity price channels, as the East Asian financial systems, including the capacity of the official sector to withstand financial shocks, have remained fairly robust.

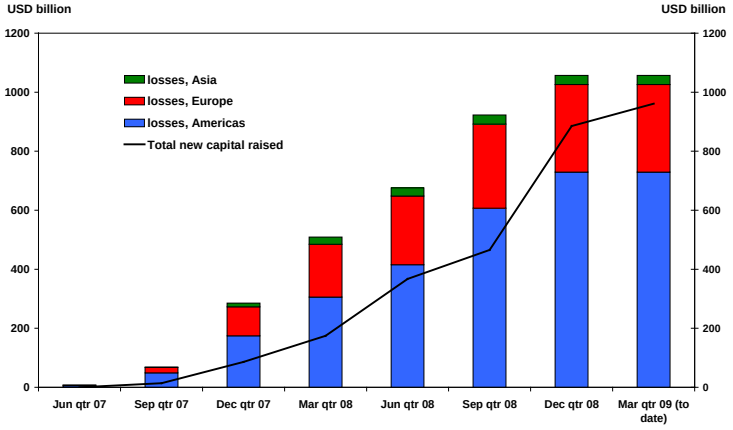
To date, Asian and many other emerging market economies have been less affected than in previous episodes. This resilience so far is very different from the crises of the past two decades. However, the adverse impact of the developed world recession on Asian exports and investment is now showing quite strongly. It is not clear how severe the impact may ultimately be.

*What is needed for stability to return to the world financial system?*

Two fundamental conditions are needed for conditions in the global financial system to return to normal. First, housing markets in the US and UK need to stabilise. As suggested earlier, there is a natural limit to how far housing market activity can fall. Second, sufficient capital as a buffer against risk and as a base for growth needs to be restored to Northern Hemisphere financial institutions. The sufficiency of capital then needs to be transparently observed by all in the market in order for confidence to return and normal financial trading to resume. This latter process may well drag on beyond this year.

So far, the running total of credit losses declared by US and European financial institutions since the crisis began still exceeds the amount of new capital raised (Figure 9). And, there remains uncertainty about the level of losses still to be crystallised, or still to be generated as a result of the recession. Financial institutions and authorities face the formidable challenge of establishing credible estimates of the losses still to be borne and the exposures still to be covered, and then finding the new capital to get the financial system back on its feet.

**Figure 9. Cumulative credit losses by region and total new capital raised**




Source: Bloomberg

Meanwhile, the massive fall in household wealth since 2007, with largely unchanged household debt, means that the financial outlook for households across the developed world (especially those who "leveraged up" in the boom phase) is now much less healthy, especially in view of the increased threat of unemployment and the reduced fiscal strength of government. Households are likely to respond to this in two ways – first, by cutting back consumption and investment and increasing savings; second, by selling assets to pay off liabilities.

Both processes will keep downward pressure on asset prices and drag on economic activity for many years, probably beyond the return of normal financial market conditions. Much more cheap credit than was sustainable was taken up over many years, not only by the Northern Hemisphere financial sector and household sector but also certain elements of the corporate sector (the US auto industry, for example). In the early part of the process, the impairment of the financial system will actually force the household and corporate sectors to reduce debt, as the opportunities for leveraged investment in housing and other assets will be much reduced. This increased propensity to save may blunt the impact one might otherwise expect from fiscal and monetary policy stimulus.

Finally, external surplus-running emerging markets, especially in Asia, will have strategic consumption and investment choices to make. Their broad development strategy in the early to mid-2000s was to grow national income by exporting cheap consumer goods to developed, largely deficit-running, economies. This strategy will now be less viable given household and national financial retrenchment, and pressure on exchange rates to fall to assist in the reduction of imbalances, in the West. Asian governments will need to generate large increases in consumption and domestic investment demand, to replace the gap left by exports, if they are to continue growing at the high rates needed to meet their national and social development objectives.

The net financial flow from East to West that characterised the middle part of this decade will as a consequence need to fall somewhat, even if it doesn't reverse. As the large emerging markets such as China and India continue to develop amid these large shifts in global economic and financial currents, the reduced dependence of the world on consumption and investment in the West and consequent shift of political power will accelerate.

*New Zealand's position*

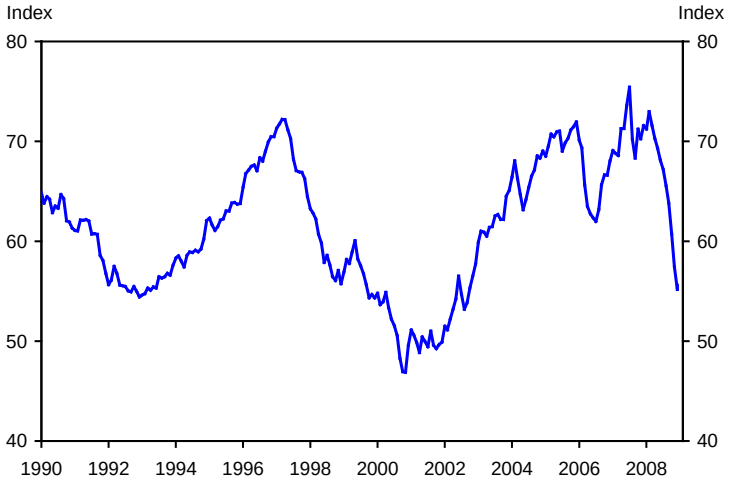
New Zealand, like the rest of the Asia-Pacific, has thus far held up better than many developed economies. The global financial crisis hit the Northern Hemisphere first, and hardest. The transmission of the shock to us through Asia and Australia – which together account for half our trade in goods – has been slower than the transmission from the US to Europe. However, we haven't escaped unscathed either financially or economically. New Zealand investors have lost money. Sectors of the New Zealand economy exposed to external demand have weakened sharply.

A few factors count in New Zealand's favour. The parts of the US and European capital markets that have been most damaged are investment banking, hedge funds, private equity, sovereign wealth funds, and stock, bond and derivatives markets. New Zealand's direct exposure to these parts of the international capital markets, and to complex derivatives or structured credit products, is very light. Our banking system is well-capitalised, vanilla, and mortgage lending is generally on good credit quality. The large Australian banking groups, of which the major New Zealand banks are a part, are now among the largest and highest-credit-quality banks in the world.

Also, our established track record for transparency in our regulatory institutions, sound management of the public accounts, and forward-looking monetary policy are well-regarded internationally. Through this episode, we have attracted relatively little adverse attention in financial markets.

Finally, New Zealand's freely floating exchange rate is an effective buffer against the current, internationally sourced, shock. The downturn in international commodity prices, as well as international investor risk aversion and the contraction of liquidity in the global financial system, have led the value of the New Zealand dollar to fall against all the major currencies (Figure 10). This has been especially the case against the Japanese yen – the currency of a country that typically runs a current account surplus, unlike the others in the New Zealand TWI. Not only does depreciation cushion the incomes of sectors exporting goods and services priced in foreign currency, it also acts powerfully and in the right direction to encourage the reduction of national debt and re-balancing of sectoral demand that is needed in New Zealand, as a deficit-running country. As a small, open economy with flexible product and labour markets, we should be better positioned than many others to re-orient production and income generation in response.

**Figure 10. New Zealand TWI[5]**




Source: RBNZ.

However, there are also some negative features about New Zealand's situation. Our exposure to the global commodities trade is particularly evident now, with the commodity price volatility currently. The overall impact on New Zealand depends on the balance between imported (oil) and exported (agricultural) commodity prices. Usually commodity price rises and falls see the New Zealand terms of trade rise and fall more or less in concert, because of the greater proportion of commodities on the export side than the import side. This is the pattern we are seeing currently, with the terms of trade having fallen about 10 percent so far since early 2008.

With open capital borders, defensive monetary or financial system policy actions taken by bigger economies can cause collateral damage to smaller ones. Guarantees of financial institution liabilities, or provision of official credit facilities, inevitably have to have boundaries, to limit the risk of the sovereign granting the guarantee or credit. But in an environment where depositors and investors are panicky, and the appetite or capacity to take risk is limited, the boundary will inevitably generate a rush of funds to the safe side, putting pressure on governments, even in countries with safe financial systems, to "match" the actions taken abroad. We saw this illustrated clearly in October last year with the extension of government guarantees of bank liabilities overseas.

Finally, even though our banking system is vanilla in terms of credit risk, it has vulnerabilities resulting from the need to fund domestic lending activities by offshore borrowing. As is well known, New Zealand has been running a large external deficit for some time, mirrored by a severe household savings imbalance. This imbalance grew even larger during the credit and house price boom. The banks have been funding this shortfall of domestic savings mostly with short-term debt ("commercial paper") issues, which need to be renewed every few months. The increase in New Zealand's external vulnerability was the reason for Standard and Poor's placing New Zealand's foreign currency credit rating on "negative outlook", increasing the focus on the economy's adjustment to the imbalances and the role of fiscal policy in supporting it.

[5] The TWI shown in this Figure is a 50:50 trade-to-GDP weighted TWI calculated from 1990 onwards. It is the same as the official TWI after 1999, but differs from the official TWI before 1999 because simple bilateral trade weights were used in the official TWI at that time. The analytical measure is preferred to the official measure for analytical purposes, because it is calculated consistently over history.

The banks hedge most of the foreign exchange risk on their offshore liabilities, so we do not face the risk of dangerous escalation of the burden of foreign-currency liabilities if the exchange rate falls, as often happens in emerging market crises. However, the debt still does have to be renewed. Part of the price of that renewal, when offshore investors are both skittish and there is little cash around, is that the terms must become more attractive to the investors, through some combination of a lower exchange rate and higher premiums on credit to New Zealand.

The New Zealand economy will be trading through a world economic and financial environment that will be extremely weak for most or all of this year, at least. The impact of the sudden worsening of international economic conditions and substantial monetary stimulus late last year will not become clear for some quarters. The large fiscal stimulus packages announced in our major trading partners do not take effect until later in the year, with lags from there until spending responds. In the near term, there will be considerable downward pressure on the domestic downturn already well underway, with weakness in household expenditure, the export sector and activity likely to persist through the year.

*Coping at the business and household level*

In light of this weakness and uncertainty about what the year holds, New Zealand businesses and households are understandably behaving cautiously. They are reducing expenses, increasing savings and otherwise shoring up balance sheets. The availability of government-guaranteed savings vehicles at relatively attractive interest rates, certainly compared to those elsewhere, is probably encouraging this behaviour. However, the shutters on spending have not come down completely. Overall, we are seeing a broadly rational response to the difficulties we face.

The massive financial downdrafts hitting the economy this year will force a mix of pricing and wage-setting restraint, moderated employment plans, and higher hurdles for new investment. Within this, the precise coping strategies taken will vary across the economy's sectors, depending on the particular shape of domestic and external forces playing out in each.

None of this will be easy. Business and labour will be challenged by the need to be realistic about the painful adjustment ahead, without undermining our collective ability to respond to the recovery in demand when it arrives. The more that the domestically-generated part of the economy's cost structure can be kept under control, the less pressure there will be for the burden to show up in reduced employment and output.

Banks also will need to play their part. Lending policies have turned conservative and cautious, which is normal banking behaviour in risky times. However, just as the banks have done very well in New Zealand in good times, so they have a key role to play in tough times. They are a critical part of the mechanism by which monetary policy stimulus gets through to the wider economy. While continuing to manage their risk prudently, the banks' challenge will be to continue lending on sound business proposals, to keep working to develop stable sources of funding from depositors and the financial markets, and to keep passing on to lending rates the cuts in wholesale interest rates.

*What if things get worse?*

What if things get markedly worse? For the Reserve Bank at least, as for other New Zealand authorities and our colleagues abroad, the first priority for the coming year will be to remain

ready to respond. Further adverse news is likely and further remedial interventions may well be necessary.

Lest there be any doubt, the tool box is by no means empty. We have done a lot already and it will take some time for these actions to have their full effects, but we are entering the year well-positioned on the monetary policy, liquidity management and prudential policy fronts.

If we need to, there is still room for us to cut the OCR further in response to adverse economic developments. The Policy Targets Agreement provides ample scope to respond consistent with our inflation target. Although there remain local financial market frictions, the conventional monetary transmission mechanism through interest rates is working adequately. We remain confident that we will be able to keep future inflation tracking satisfactorily, with inflation expectations anchored, and both well clear of the danger zone of deflation.

This contrasts with the position of, say, the US and the UK, where official interest rates have been cut to levels close to zero, and where the capacity of banks to lend is seriously constrained. Japan, of course, has had several recent years of experience in this position. Japan still has very low inflation and the difficult challenge of stimulating the economy with little means of imparting conventional monetary stimulus. These authorities are now pursuing other means of reducing the cost of borrowing in the economy. It is possible we may learn from them new techniques to manage the range of effective short and longer-term interest rates.

The depth and scalability of the Reserve Bank's money market operations and liquidity facilities have served and positioned us well through the current episode.
The expanded facilities – especially the acceptance of residential mortgage-backed securities as collateral and the Term Auction Facility – give us substantial capacity to scale up the volume of cash in the system if required.

Prudential policy will continue to put priority on ensuring that banks adequately manage the risks associated with rolling over their debt funding. Consultation on a proposed new prudential regime for the management of liquidity risk by registered banks closed at the end of last year, and the Reserve Bank aims to finalise the new policy in this area by around March 2009. We expect the finalised policy to reinforce incentives for banks to lengthen the maturity of their funding, and hence reduce their future vulnerability to short-term funding risks. We will be further advancing our work programme with our Australian counterparts on improving regulation and supervision of banks with trans-Tasman operations.

Finally, the Reserve Bank is not the only agency with a role to play in stabilising the economy. Fiscal policy is sharing some of the burden of the shock by stimulating spending, and New Zealand's fiscal position is stronger than that in many other countries. Regulatory policy has the potential to address identifiable problems in a targeted way, though of course longer-term structural adjustments and re-allocations of resources need to be allowed to take place.

## 4. CONCLUSIONS

Last year might have seemed like a blizzard of outlandish news, large-scale economic and financial policy interventions, and confusing messages. We are in the middle of a major international shock, currently developing from financial turbulence into economic recession.

Our banking system remains well-capitalised. Widespread credit problems have not suddenly appeared. However, we have not escaped the impact of the massive tightening in credit conditions internationally. In our case, the tightening has exposed vulnerabilities associated with household and external indebtedness. The global recession is also now affecting us through trade channels and a slump in world commodity prices.

The remedial efforts we have taken in New Zealand have probably been about as successful as might be expected. We eased monetary policy substantially and very rapidly. Inflation remains under control, following the largest international commodity and asset price surge for decades. We greatly expanded our liquidity facilities. Cash continues to circulate, in the face of enormous pressure to hoard it.

We continue to develop our monetary policy, liquidity management and prudential policy tools and to consider how the mix of tools might best be applied. This includes working with other government agencies to promote overall stability. Sometimes our tools can be treated independently, sometimes they work together, and sometimes they work against each other, necessitating judgement about the right balance.

Issues remain. This episode has shown that apparently isolated risks can suddenly correlate, threatening the stability of the system. Central bank liquidity operations and the impact of monetary policy will be blunted if credit markets do not work and financial institutions cannot lend. Scarce liquidity makes banks' short-term funding vulnerabilities painfully evident. Debt loads that looked sustainable during good times are less sustainable under crisis conditions.

In the medium term, prices and quantities will adjust to correct imbalances. However, that process can be very rocky for exposed players, with real economic costs. Perhaps the foremost lesson of the Depression experience is that a sequence of setbacks should be anticipated.

In responding to the urgency of cyclical stabilisation, we need to recognise the underlying large structural adjustments underway. The debt build-up will take years to prune back down to sustainable and prudent levels.

It is by no means clear how the international financial system will be organised in the future. The institutions and tools of financial regulation and supervision may well undergo far-reaching change. We need to understand better how financial risks can reinforce each other and harm the macro-economy.

Households, firms and banks will naturally be very cautious during this process. However, we should also be watchful for the opportunities, and mindful of the risks of defeatism. Within the Western world, New Zealand's economy and financial system are relatively well-placed to weather the adjustment. Our challenge will be to remain well-positioned to take advantage of the economic recovery when it arrives – possibly suddenly and strongly, which has been New Zealand's experience in the past. Households and firms should not pull down the shutters, and banks should continue to lend on sound business propositions.

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