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## FOR THE RECORD

### DISCUSSION PAPERS

DP2009/17

#### Global shocks, economic growth and financial crises – 120 years of New Zealand experience

*Michael D. Bordo, David Hargreaves and Mizuho Kida, December 2009*

We identify the timing of currency, banking crises and sudden stops in New Zealand from 1880 to 2008 using methodologies from the international literature and consider the extent to which the empirical models in that literature can explain New Zealand's crisis history. We find that the cross country evidence on the determinants of crises fits New Zealand experience reasonably well. A number of the risk factors that correlate with crises internationally – such as domestic imbalances, external debt, and currency mismatches – were elevated for New Zealand when the country had more frequent crises and have improved in the recent (more stable) period. However, a time-series analysis of New Zealand growth over 120 years shows that global factors – such as the US growth rate and terms of trade – explain New Zealand growth fairly well, and that crisis dummy variables do not have significant additional explanatory power. This suggests that having sound institutions and policies may help avoid severe domestic crises, but will not be sufficient to avoid the domestic economic impact of the global business cycle.

DP2009/18

#### Forecasting New Zealand's economic growth using yield curve information

*Leo Krippner and Leif Anders Thorsrud, November 2009*

We forecast economic growth in New Zealand using yield curve data within simple statistical models; i.e. typical OLS relationships that have been well-established for other countries, and related VAR specification. We find that the yield curve data has significant forecasting power in absolute terms and performs well relative to various benchmarks. Specifications including measures of the yield curve slope

produce the best forecasts overall. Our results also highlight the benefits of fully exploiting the timeliness of yield curve information (ie, it is always available and up to date).

DP2009/19

#### Whatever next? Export market choices of New Zealand firms

*Richard Fabling, Arthur Grimes and Lynda Sanderson, December 2009*

We examine product and market entry choices of New Zealand exporters, using an enterprise level dataset which links firm performance measures with detailed data on merchandise trade. We focus our enquiry not on the broad question of what determines a firm's ability to export, but on the subsequent question: given that a firm has the ability to export, what determines the choices they make about what and where to export? We simultaneously consider firm and market level determinants of export market entry. At the firm level we find that measures of general and specific prior trade experience play an important role in determining the firm's future export activities. That is, we find evidence of path dependence within firms. We also find evidence of path dependence across firms, with entry into new export relationships reflecting demonstration effects from the export activities of other firms in the local area. These results are robust to the inclusion of other determinants of exporting, including the macroeconomic performance of destination countries, exchange rate movements, and the past performance of the exporting firm.

DP2009/20

#### Measuring changes in firm-level volatility – an application to Japan

*Emmanuel De Veirman and Andrew Levin, December 2009*

This paper develops a new technique for estimating earnings and employment volatility at the firm level, and applies it to

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Japanese firms. Unlike earlier studies for the US, we estimate instantaneous volatility for every year, rather than a rolling 10-year average of volatility. In addition, our technique allows us to estimate the firm-specific component of firm volatility separately, by controlling for variation in firms' earnings and employment growth induced by aggregate and sectoral factors. We find that firm-specific sales volatility was substantially higher before the 1990 stock market crash than in the following fifteen years. The conditional variance of earnings and employment growth stayed relatively constant until the late 1990s, but increased substantially from 1999 onwards.

**DP2010/01**

**Evaluating household expenditures and their relationship with house prices at the microeconomic level**

*Mark Smith, January 2010*

Over much of the past 40 years, cycles of house price and consumption growth have been closely synchronised in New Zealand. Three main hypotheses for this co-movement have been proposed in the literature. Firstly, an increase in house

prices increases homeowners' wealth, which increases their desired level of expenditure. Secondly, rising house prices may also facilitate additional consumption by reducing credit constraints to homeowners. Finally, house prices and consumption have been influenced by common factors, including expectations of future income growth. This paper uses repeated cross-sectional analysis of household-level data over the 1984 to 2007 period to ascertain which of these hypotheses is more valid for the New Zealand case. A positive correlation between real house prices and real household expenditures is evident for most tenure and age groupings. However, findings from this paper suggest that the house price and consumption relation is predominantly driven by wealth effects.

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## NEWS RELEASES

### Government appoints Reserve Bank directors

*19 January 2010*

Finance Minister Bill English has appointed two new directors to the board of the Reserve Bank.

The two Reserve Bank board appointments are Victoria University Professor of Economics, Neil Quigley, and Auckland-based consulting research economist Kerrin Vautier. Both take up their new roles early next month.

"The Government has looked for new directors with a mixture of macroeconomic and business experience," Mr English says.

"Both appointees have a strong background in economics and are experienced directors across a range of companies and ventures. I'm confident they have the skills to help the bank meet its targets and promote and maintain a sound and efficient financial system."

The Reserve Bank's board reviews the performance of the governor and the bank, including whether monetary policy is meeting policy targets.

The new directors replace Alison Paterson who is leaving after completing three five-year terms and Sir John Goulter who has completed two.

### Liquidity swap line to expire

*28 January 2010*

In coordination with other central banks, the Reserve Bank of New Zealand today confirmed its temporary liquidity swap line with the Federal Reserve will expire on 1 February, 2010.

This facility, established in October 2008 to counter pressures in global funding markets, has not been used by the Reserve Bank and is no longer needed given the improvements in financial market functioning.

### OCR unchanged at 2.5 percent

*28 January 2010*

The Reserve Bank today left the Official Cash Rate (OCR) unchanged at 2.5 percent.

Reserve Bank Governor Alan Bollard said: "The outlook for the New Zealand economy remains consistent with the projections underlying the December Monetary Policy Statement.

"Global activity continues to recover, helping push New Zealand's export commodity prices higher. Economic growth is most apparent in China, Australia, and emerging Asia. However, sustained growth throughout our trading partners is not assured, with many still facing impaired financial sectors and overall activity still reliant on policy support.

"Similarly, the New Zealand economy continues to recover. Policy stimulus and improving export earnings have seen a pickup in household spending. That said, households remain cautious, with credit growth subdued. Business spending remains weak.

"Annual CPI inflation is currently at the centre of the target band, and is expected to track comfortably within the band over the medium term.

"The economy is being assisted by both monetary and fiscal policy support. As growth becomes self sustaining, fiscal consolidation would help reduce the work that monetary policy might otherwise need to do.

"If the economy continues to recover in line with our December projections, we would expect to begin removing policy stimulus around the middle of 2010."

### Monetary policy worked well in crisis

*29 January 2010*

New Zealand's inflation targeting monetary policy has proven flexible, durable and successful, but economic growth requires more than this, Reserve Bank Governor Alan Bollard said today.

New Zealand was the first country to formally target inflation. This was in response to the high inflation and macroeconomic instability of the 1970s and 1980s, Dr Bollard said in a speech delivered to the Canterbury Employers' Chamber of Commerce in Christchurch.

"It has now been tested through a long period of growth, as well as droughts, migration shocks, terms of trade

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changes, an Asian crisis, a dot-com boom and bust, and, most recently, the worst global economic and financial crisis seen in generations.

“In terms of what it was directly designed to achieve, namely price stability, inflation targeting has been a relative success.”

Alternative monetary policy frameworks would not have provided the same flexibility to navigate through the crisis, and may in fact have made it harder to maintain price stability while avoiding unnecessary volatility in the wider economy.

“Our flexibility meant that, once the global financial crisis hit, we could respond swiftly, cutting the OCR by more than 5 percentage points and providing banks with emergency liquidity, when international wholesale funding markets were gridlocked.”

Dr Bollard said that inflation targeting works best in conditions where global economic conditions are stable, domestic fiscal and tax policies are neutral, and the financial system is stable.

“We know that our job will in part depend on policy choices made by the major global players as they exit from current stimulatory policy settings. Central bankers around the world are balancing the need to provide ongoing support for a very fragile recovery against the risk of keeping monetary and fiscal conditions too easy for too long.

“In New Zealand, successful removal of the recent fiscal stimulus would ease pressure on monetary policy. We are also hopeful that the recently released report of the Tax Working Group will lead to a more even-handed tax system when it comes to investment and consumption decisions.”

He said the key international lesson from the crisis was that financial instability can cause problems for the real economy. Authorities were now working out ways to strengthen and improve the prudential supervision of financial institutions.

“In New Zealand, the financial system is a lot simpler than in other parts of the OECD, and has not seen the same types of excesses. Nevertheless, we are taking steps to make our banks and finance companies more resilient to financial system shocks.

“In implementing the Basel II capital framework, we have ensured that banks’ assessment of risk is based on a ‘through-the-cycle’ approach rather than just on the most recent period of growth. We have also put in place a new prudential liquidity policy for banks to make the system less vulnerable to a drying up of international funding markets, such as we saw in late 2008 and early 2009.”

Dr Bollard said that, as a small, flexible and full-service central bank, the Reserve Bank is in a good position to be at the forefront of progress in integrated macro-financial policy design.

He concluded that, at best, new policy instruments could supplement the role of the OCR, but will not fundamentally alter it. “Ideally, such instruments might change the mix of monetary conditions and take some pressure off the exchange rate. Overall monetary conditions will still need to be set appropriately to keep inflation stable.”

## **Reserve Bank issues consultation paper**

**2 February 2010**

The Reserve Bank today released a Consultation Paper (PDF 129KB) on policy options for liquidity requirements for the non-bank deposit taking (NBDT) sector. The policy options outlined are aimed at decreasing liquidity risk in the deposit-taking sector, which includes finance companies, building societies and credit unions.

Liquidity requirements (ability of an NBDT to meet its financial obligations) form part of the NBDT prudential regulatory regime that the Reserve Bank is progressively introducing to help improve the future resilience of New Zealand’s NBDT sector. The regime also includes capital adequacy requirements, related party restrictions, risk management requirements, and credit rating requirements.

Comments and responses to the questions raised in the Consultation Paper should be submitted to the Bank by 15 March 2010. The intention is to make policy recommendations to Cabinet in the second quarter of 2010.

The consultation paper and information on the NBDT prudential regulatory regime can be accessed on the Bank’s website ([www.rbnz.govt.nz](http://www.rbnz.govt.nz)).

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## OCR unchanged at 2.5 percent

*11 March 2010*

The Reserve Bank today left the Official Cash Rate (OCR) unchanged at 2.5 percent.

Reserve Bank Governor Alan Bollard said: “The New Zealand economy is recovering broadly as expected and growth is predicted to pick-up further through 2010.

“Trading partner activity has recovered a little faster than expected. Currently, growth is strongest in China, Australia, and emerging Asia, but is much more muted in other trading partners. At the same time, risks around the global outlook have increased, although not to the extreme levels seen at the height of the crisis.

“We estimate the New Zealand economy grew at a stronger pace in the December and March quarters than in the prior two quarters. Looking forward, while growth is expected to increase to about 4 percent next year, this is subdued relative to previous recoveries.

“Policy stimulus and improved consumer confidence have

seen a pick-up in household spending. That said, households are still cautious with house sales and credit growth remaining subdued. Business spending is weak despite much improved confidence.

“Annual CPI inflation is currently at 2 percent, and is expected to track within the target range over the medium term. In the short term, implementation of the amended Emissions Trading Scheme and increases in ACC charges will push CPI inflation toward the top of the target range.

“Higher bank funding costs have reduced the level of stimulus that would normally be associated with any given level of the OCR. We expect these costs to persist over the projection reducing the extent of future increases in the OCR. Fiscal consolidation would also help reduce the work that monetary policy might otherwise need to do.

“We continue to expect to begin removing policy stimulus around the middle of 2010.”

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## PUBLICATIONS

### Regular publications

*Annual Report*

*Financial Stability Report*

*Monetary Policy Statement*

*Reserve Bank of New Zealand Statement of Intent, 2007-2010*

Published in October each year.

Published six-monthly. A statement from the Reserve Bank on the stability of the financial system.

Published quarterly. A statement from the Reserve Bank on the conduct of monetary policy.

### Recent Reserve Bank Discussion Papers

#### 2009

- DP2009/01                      Revealing monetary policy preferences  
*Christie Smith*
- DP2009/02                      Real-time conditional forecasts with Bayesian VARs: An application to New Zealand  
*Chris Bloor and Troy Matheson*
- DP2009/03                      Evaluating household expenditures and their relationship with house prices at the microeconomic level  
*Mark Smith*
- DP2009/04                      Forecasting national activity using lots of international predictors: an application to New Zealand  
*Sandra Eickmeier and Tim Ng*
- DP2009/05                      Using wavelets to measure core inflation: the case in New Zealand  
*David Baqaee*
- DP2009/06                      Analysing wage and price dynamics in New Zealand  
*Ashley Dunstan, Troy Matheson and Hamish Pepper*
- DP2009/07                      Developing stratified housing price measures for New Zealand  
*Chris McDonald and Mark Smith*
- DP2009/08                      Evaluating a monetary business cycle model with unemployment for the Euro area  
*Nicolas Groshenny*
- DP2009/09                      Entrepreneurship and aggregate merchandise trade growth in New Zealand  
*Richard Fabling and Lynda Sanderson*
- DP2009/10                      A theoretical foundation for the Nelson and Siegel class of yield curve models  
*Leo Krippner*
- DP2009/11                      A cobweb model of financial stability in New Zealand  
*Paul Bedford and Chris Bloor*
- DP2009/12                      A quarterly post-World War II real GDP series for New Zealand  
*Viv B Hall and C John McDermott*
- DP2009/13                      The "suite" smell of success – complementary personnel practices and firm performance  
*Richard Fabling and Arthur Grimes*
- DP2009/14                      Impulse response identification in DSGE models  
*Martin Fukac*
- DP2009/15                      Measuring output gap uncertainty  
*Anthony Garratt, James Mitchell and Shaun P. Vahey*
- DP2009/16                      Structural Macro-Econometric Modelling in a Policy Environment  
*Martin Fukac and Adrian Pagan*
- DP2009/17                      Global shocks, economic growth and financial crises – 120 years of New Zealand experience  
*Michael D Bordo, David Hargreaves and Mizuho Kida*
- DP2009/18                      Forecasting New Zealand's economic growth using yield curve information  
*Leo Krippner and Leif Anders Thorsrud*
- DP2009/19                      Whatever next? Export market choices of New Zealand firms  
*Richard Fabling, Arthur Grimes and Lynda Sanderson*
- DP2009/20                      Measuring changes in firm-level volatility – an application to Japan  
*Emmanuel De Veirman and Andrew Levin*

#### 2010

- DP2010/01                      Evaluating household expenditures and their relationship with house prices at the microeconomic level  
*Mark Smith*

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A full list of Discussion Papers is available from Administration, Economics Department.

**Selected other publications**

*Testing stabilisation policy limits in a small open economy: proceedings from a macroeconomic policy forum*  
*Finance and Expenditure Select Committee inquiry into the future monetary policy framework: submission by the Reserve Bank of New Zealand*

**Pamphlets**

*Explaining Currency*

*Explaining Monetary Policy*

*The Reserve Bank and New Zealand's Economic History*

*This is the Reserve Bank*

*Your Bank's Disclosure Statement – what's in it for you?*

*Snakes and Ladders – a guide to risk for savers and investors, by Mary Holm*

**For further information, go to [www.rbnz.govt.nz](http://www.rbnz.govt.nz), or contact:**

Knowledge Centre

Knowledge Services Group

Reserve Bank of New Zealand

2 The Terrace, P O Box 2498

WELLINGTON

Phone (04) 472–2029

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## Articles in recent issues of the Reserve Bank of New Zealand *Bulletin*

### Vol. 72, No. 1, March 2009

Financial vulnerability of mortgage-indebted households in New Zealand – evidence from the Household Economic Survey

Thinking about more than one thing at a time: Eric Leeper on monetary and fiscal policy interactions

Recent trends and developments in currency

Overview of a recent Reserve Bank workshop: nowcasting with model combination

Coping with global financial and economic stresses

### Vol. 72, No. 2, June 2009

#### Forecasting the New Zealand economy

Introducing KITT: the Reserve Bank of New Zealand's new DSGE model for forecasting and policy design

The use of statistical forecasting models at the Reserve Bank of New Zealand

The Reserve Bank's process for forecasting business investment

The demographics of household inflation perceptions and expectations

Exchange rates and export performance: evidence from micro-data

The evaporation of trust: Prasanna Gai on financial crises

### Vol. 72, No. 3, September 2009

Quality of bank capital in New Zealand

Anchoring fiscal expectations

'Mordacious years': socio-economic aspects and outcomes of New Zealand's experience in the Great Depression

Financial crises, sound policies and sound institutions: an interview with Michael Bordo

The financial crisis: whodunnit?

Economic recovery

### Vol. 72, No. 4, December 2009

The Reserve Bank's new liquidity policy for banks

Assessing recent external forecasts

Banking crises in New Zealand – an historical perspective

The evolution of New Zealand's trade flows