A house of cards

A review of the evidence for the Reserve Bank of New Zealand's new residential property investment loan asset class

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About Tailrisk economics

Tailrisk economics is a Wellington economics consultancy. It specialises in the economics of low probability, high impact events including financial crises and natural disasters. Tailrisk economics also provides consulting services on:

- The economics of financial regulation
- Advanced capital adequacy modelling
- Stress testing for large and small financial institutions
- Regulatory compliance for financial institutions
- General economics.

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“A house of cards”

I Introduction

The Reserve Bank of New Zealand is proceeding with its plan to impose higher risk weights on a new residential ‘investor’ loan risk class, and to apply restrictions on Auckland investor loans with an LVR of over 70 percent.

The Bank has used three sets of arguments to support its claim that residential mortgage investor loans are riskier than normal residential mortgage loans.

1. Evidence from overseas jurisdicitions and some from New Zealand
2. Analytical arguments
3. The need to comply with international capital standards

The Bank has primarily relied on empirical evidence from overseas jurisdictions, which have experienced a systemic shock, in making its assessment. The New Zealand experience is that retail ‘investor’ loans are not riskier than other retail housing loans. However, the Bank has discounted this evidence because the New Zealand Global Financial Crisis (GFC) shock was judged to be ‘not systemic’.

We have reviewed each of the papers cited as support for the Bank’s conclusions. We have also assessed the analytical arguments and the ‘international standards compliance’ claim.

II Key conclusions

The key conclusions from our assessment are:

- The international literature does not provide support for the Bank’s contention that investor loans are riskier than owner-occupier loans. Four of the four studies that controlled for other loan attributes, found that investor status had no impact, or only a trivial impact, on default rates. None of the other references the Bank cites provide substantive support for its conclusions. A European Banking Authority survey of 41 advanced modelling

banks found that none identified investor status as a risk driver in their retail housing mortgage lending models.

- Banking practices and relevant laws in the countries that the Bank has focussed on were so different from New Zealand's that there are few lessons from the investment lending experience to be applied here. The pertinent lesson is that it was bad, indeed lunatic, banking practice that was to blame.

- The Bank's analytical arguments are either wrong, trivial or convey a lack of understanding of relevant banking practices and the New Zealand legal environment.

- The need to comply with 'international standards' has been overstated and the facts around those standards have been misrepresented.

- The decision to ignore the New Zealand evidence, which shows that investor loans are not riskier, was a mistake.

Some might say that this is all irrelevant, and is just a case of economists bickering about the numbers. Something has to be done about Auckland house prices, and if the Bank has had to 'gild the lily' on the evidence, impose significant costs on banks and distort the way they measure risk, so be it.

We disagree. Bad analysis seldom leads to good policy outcomes. The ends hardly justify the means in this case. The Bank's (optimistic in our view) estimate of the impact on the constraint on lending to Auckland investors is that it will reduce Auckland house prices by 2 to 4 per percent.

What are the loans in question?

The loans that the Bank believes are 'riskier' are mostly loans to small investors who typically have provided the house they live in, and one or two investment properties, as security. The primary support for these loans will be the borrowers' salary and wage or self employed income.

These loans are currently included in banks' retail portfolios and are assigned a risk weight relating to the retail residential mortgage lending class. They are distinguished from loans to 'professional' investors, who have more residential investment properties, and who rely on the rents from those properties to service

the loan. These loans are assigned to other asset classes and carry a higher risk weight.

III The Bank's Empirical evidence

The empirical evidence can be divided into two groups.

- The evidence cited in the original consultation paper.
- Additional evidence cited in documents prepared after the Bank had an opportunity to review responses to their analysis in submissions.

The distinction is important because, in the second set of documents, the Bank had had the opportunity to review arguments that they had misinterpreted the overseas evidence, and ignored studies that showed that the apparent poor performance of 'investor' loans was due to higher leverage, rather than because they were secured by rental properties.

Evidence cited in the March Consultation Paper

Five papers were cited. Three relate to the Irish, and two to the UK, experiences though the GFC.

In our view evidence relating to these experiences should be treated with extreme caution as a guide to the risk of New Zealand retail 'investor' loans. The evidence is based on the relative performance of what are known as buy-to-let (BTL) loans in the GFC, and there are several reasons to believe that the experiences with these loans would not readily translate to New Zealand, if there were to be a severe downturn here.

The buy-to-let market in the UK and Ireland

With BTL loans rental income is the primary, or only, source of income supporting the loan and security is provided by the rental property.

BTL lending dates from the late 1990's when initially traditional conservative lending criteria were applied. However, loan conditions were relaxed as the market developed, until, in the peak years of the housing boom investment properties could be funded with very small deposits and little or no margin between net rental income and loan interest payments. In the UK the highest risk loans were disproportionately advanced by 'fringe' financial institutions.

These loans were very different from the loans that are now typically made to New Zealand retail residential investors. In New Zealand:

- The borrower's own house will often be at risk.

- LVR limits will be much lower.
- The loan will be mostly supported by the borrower's other income, as well as the rental income.
- Servicing capacity will be subject to more robust checks.
- Rental property owners will tend to be more experienced than the neophyte Irish and UK investors who piled into the market at the peak of their property booms. Many New Zealand investor borrowers are financially secure and have purchased one or more rental properties as part of their retirement savings plan.

In the UK BTL loans were regarded as commercial loans and banks would have been less likely to apply forbearance strategies that could have reduced default rates.

In Ireland the GFC was preceded by a huge housing construction boom, which was a significant driver of the subsequent collapse of house prices, and housing loan default rates. Also significant for the interpretation of the Irish data was that there was a flaw in the Irish loan security repossession law, which meant it was very difficult for banks to repossess houses. This meant that borrowers could cease servicing their mortgage and face little risk of losing their property or properties. This would have distorted the Irish default statistics, particularly compared to jurisdictions New Zealand where there is robust foreclosure law.

Irish BTL default performance evidence

Lydon and McCarthy 2011 "What lies beneath? Understanding recent trends in Irish Mortgage arrears"

The graph presented in paragraph 11 of the March 2015 Consultation document presents data from the Lydon and McCarthy paper, which addressed the question of whether BTL status was, in itself, a default driver, or whether the higher default experience could be explained by differences in other loan characteristics.

It was found that after controlling for differences in LVR and servicing costs, BTL status had no impact on default rates. The higher increase in observed BTL default rates was due to the fact that a larger share of BTL loans were made in the lead up to the GFC when underwriting standards were at their lowest point, and house prices at a peak.

Naturally, subsequent default rates were higher for investors who bought at the wrong time and who offered scant protection to the lender, but default rates would

also have been higher than average for owner occupiers with the same characteristics.

The results of the analysis are presented in table 7 of the paper, which shows that the coefficient for the marginal impact of BTL status is 0.00.

In a subsequent presentation ("The Irish Mortgage market in Context - Central Bank of Ireland 2011) the authors made in very clear what this result meant:

"Controlling for LTV & MRTI...
–Relative to next-time-buyers (NTB), FTB borrowers are 2% less likely to be in arrears

*–whereas, **no relative difference for BTL**"(*our emphasis)

The data presented in the Consultation document does not provide evidence that Irish BTL loans are a riskier asset class. It is **misleading** to represent the Lydon paper as providing evidence that BTL loans are riskier.

Irish Loan loss outcomes: Kelly and Blackrock

Data is presented (table 1) that purports to show loss outcomes for BTL and owner-occupier loans. The data does not show actual losses, rather they are forecasts of possible default rates over 2011-13 from an end 2010 starting point. The Bank of Ireland (a commercial bank) forecasts are actually forecasts presented in a Central Bank of Ireland technical research paper, Kelly (2011) 'The Good, the bad and the impaired: a credit risk model of the of the Irish Mortgage market', which was cited.

Because BTL loans had higher average LVRs, and weaker servicing capacities, than owner occupied loans, then naturally, as discussed above, they would have higher forecast default rates. The same comment can be made with respect to the Black Rock loss forecasts.

The Kelly and Black Rock forecasts do not provide evidence that residential investment loans are intrinsically riskier than owner occupier loans.

UK default evidence

The Fitch study

There is no citation for the Fitch analysis in the Consultation document, but we assume that the reference was to the Fitch paper (Mistropoulos and Zaid 2009) 'Relative indicators of default risk among UK residential mortgages*)'.* This study analysed the default experience (up to March 2009) of UK residential mortgages orginated over 2004-2007, and compared BTL and owner-occupied outcomes. The

study controlled for LVRs and debt servicing, and found that BTL status did not generate higher default rates.

UK Council of Mortgage lenders areas rate data

The larger relative changes in arrears over the GFC does not reflect some inherently greater vulnerability of BTL loans to systemic shocks, as is suggested. Again it simply reflect the different average borrower characteristics of BTL and owner occupied loans. As in Ireland, there was a marked increase in BTL loans in the lead up to the GFC and a disproportionate share of BTL loans were originated over the period when property prices were at their peak, and lending standards at their lowest.

What was missed

One relevant document that the Reserve bank did not reference was the 'Third Interim Report on the consistency of risk-weighted assets, SME and residential mortgages:external report'. This document was released by the European Banking Authority (EBA) in 2013.

As part of a review of the consistency of the risk weighted estimates by banks that use the advanced approach to bank capital estimation under the Basel II framework, the report focussed on the risk drivers used in housing lending risk models.

On page 31 of the report it says **"***It appears that occupier versus buy-to-let, interest related variables, amortisation types and maturity at orgination are not reported as relevant in the sample".*

Advanced modelling banks use sophiscated techniques to identify the underlying causes of default. As the EBA study covered 41 banks (many of which operate in countries that experienced systemic shocks in the GFC), we would have expected that some banks would have found that buy-to-let status was a risk driver, if that was true. The fact that BTL status did not appear in any model is fairly strong international evidence that there is no material BTL impact on residential mortgage lending risk.

We do not know if the Bank reviewed this document. It should have.

Bank's response to criticisms

The Bank's response to criticisms that it had misunderstood the Irish and UK studies was :

"*The empirical evidence that the Reserve Bank cited in its consultation paper shows that, even once the effects of LVR and servicing costs are accounted for, buyer type*

(that is, if a buyer is classified as buy-to-let) had a positive and statistically significant marginal impact on the probability of being in arrears."

This statement is **false.** Of the five studies cited, the two that controlled for LVR and income showed that BTL status had no impact on delinquency. The other three studies did not control for LVR and income.

Evidence cited in subsequent documents

Additional evidence is cited or discussed in the following documents:

- The May 2015 Financial Stability Review
- The Regulatory Impact Statement
- The Summary of Submissions
- The June 2015 Consultation Paper

In the following we have worked our way through the evidence starting with the June Consultation paper. There is a significant amount of overlap of the discussion and the references in the papers, so we only discuss new material in the other papers.

June 2015 Consultation paper: Adjustments to restrictions on high LVR mortgage lending

In para 24 of the paper it is stated:
"Residential property investment loans appear to have relatively low default rates during normal economic circumstances. However, the Reserve Bank has looked at evidence from extreme housing downturns during the GFC, and this clearly indicates that default rates can be higher for investor loans than for owner occupiers in severe downturns. For example, as shown in table 1, forecast loss rates on Irish mortgages were nearly twice as high for investors as for owner-occupiers. Similarly, actual arrears rates were about twice as high for investor loans (29.4 percent) than for owner occupier loans (14.8 percent) as at December 2014."

This statement repeats the same misleading analysis made in the earlier consultation paper.

Para 25 goes on *"Furthermore, studies which have separately estimated default rates by LVR for investor loans and owner occupier loans suggest that investor loans are substantially riskier at any given LVR. The figure below is from Kelly (2012) and shows an estimate of default rate based on current LVR. For example, if a loan was initially written at a 70 percent LVR and then prices fell 30 percent, the loan would*

appear in the chart below as LTV=100. This would have a mildly increased rate of default compared to a low-LVR loan for an owner occupier. But for an investor, the rate of default would be higher, and would have increased more sharply as a result of a given decline in house prices.

The Kelly Studies

There is only one study, Kelly (2012) that presents a systematic relationship between LVR and delinquency rates, not several as is implied in the above statement.

The Bank did not cite a later document 'A transitions-based model of loan default for Irish mortgages' (Kelly and O'Malley Dec. 2014) that updates and improves the 2012 paper. The following result is reported in this paper:

"while significant, the effect of house price movements through current LVR is weaker. An increase of one percentage point in the current LTV level results in a 0.6 percent increase in the hazard rate of loans from performing to default for ***both*** *(our emphasis) OO (owner-occupier) and BTL loans."*

As we interpret this work there is no material difference between defaults by LVR for and BTL and owner-occupier loans.

Figure 5 of the December 2014 paper shows an apparent difference between the two loan types. The authors comment that the purpose of figure 5 was to illustrate the non-linear effect of LVR. They do not comment on the difference. It is not clear what the figure represents, but it is possible that it shows unconditional (i.e. it does not control for factors associated with LVR that also impact on defaults) results.

A related paper, Kelly R. and McQuinn K. (2014) 'On the Hook for Impaired Bank Lending: Do Sovereign-Bank Interlinkages Affect the Net Cost of a Fiscal Stimulus?' is cited in the Financial Stability Review in support of the argument that "*default probabilities were estimated to have been significantly higher than owner-occupiers at any given LVR".*

The purpose of the cited paper was to demonstrate that an expansionary fiscal policy could be self-financing "*because it would improve the solvency position of the guaranteed Irish institutions, thereby reducing the sovereign's future capital obligations*." The paper used the outdated version of the Kelly model to draw the relationship between the impact of fiscal policy on macro-economic conditions and subsequent improvements in loan losses.

We do not know whether the Bank reviewed the December 2014 Kelly paper. If it didn't, that was a **mistake**. The Bank should have ensured that it was using the

results of the most up to date version of the model. Its use of the earlier analysis was **misleading.**

Haughwout A., Lee D. and van der Klaauw (2014) 'Real estate investors, the leverage cycle, and the housing cycle'

This study is cited in para. 26 of the June 2015 Consultation paper with the following commentary:

"a New York Fed study which defined investors as owners of multiple properties (rather than using declared intentions) found that investors were an important driver of downturn defaults" In the RIS it was said that investors were an '*obvious; driver of downturn defaults.*

What was not stated was that the study just related to subprime loans. Given the well known difference between sub-prime and prime loan performance in the GFC this was a **material omission.**

The outcome of the empirical analysis was not reported by the Bank. Table 5 in the paper presents the impact of investor status on default rates (distinguishing between 'investors' with just two properties, and those with more), once other factors have been controlled for. We have reproduced the results below.

Table one: Haughwout (2014) PD results

Annual impact on PD %		
	2 properties	3+ properties
2008	0.04	0.20
2009	0.02	0.35
2010	0.03	-0.34

Given the high failure rates on subprime loans, the increase in the default rate for borrowers with multiple properties is trivial. The statements in the Bank's documents that investor status was an important, or obvious, driver of default were **misleading.**

What is surprising here is that the differences in default rates were not larger. In an environment where you could get a 100% LVR mortgage, and would not be pursued for any deficiency if the housing market tumbled, it is no surprise that an increasing number of borrowers took what was a free option on the bank, and that there were some people (who were termed investors in the study) who would take as many bets as they could.

In terms of the relevance of this analysis to New Zealand there is very little. New Zealand banks do not issue subprime mortgages. There are no uninsured 100% LVR loans, servicing capacity is closely scutinised, and in most of cases the family home is at risk.

Palmer C. (2014) 'Why do so many subprime borrowers default during the crisis: Loose credit or plummeting prices'

The Bank made the following statement:
"Palmer (2014) reports that default rates increased in a multivariate regression with loan to value ratio and for loans that were declared non-owner occupiers."

In his paper Palmer uses comprehensive loan-level data to decompose sub-prime loan loss defaults amongst three default drivers. His conclusions are as follows.

"*Decomposing the observed deterioration in subprime loan performance, I find that the differential impact of the price cycle on later cohorts explains 60% of the rapid rise in default rates across subprime borrower cohorts. Loan characteristics, especially whether the mortgage had an interest-only period or was not fully amortizing, are important as well and explain 30% of the observed default rate differences across cohorts. Changing borrower characteristics, on the other hand, had little detectable effect on cohort outcomes. While quite predictive of individual default, borrower characteristics simply did not change enough across cohorts to explain the increase in defaults."*

There is no marker for investment property status as such in the study, just a marker for whether the dwelling was to be owner occupied or not. It is not clear where holiday, or other second homes, would fall. Regardless, the non-occupier marker fell into the borrower characteristic category, (along with under variables), which in total provided little independent explanation of default. There was no result that investor status increased defaults. The Bank's statement was **false.**

Fitch ratings study

The Bank states: *"Fitch Ratings (2012) has reported on empirical work using data from securitised mortgages in Australia, which suggests that investor loans performed similarly to owner occupier loans in normal times but significantly worse in downturns"*

We do not have access to the full Fitch report as it is only available to clients, so we have had to rely on the press release that accompanied the release of the report. The key points made in that release were as follows:

Fitch Ratings says in a new report that severe delinquencies are higher for investment mortgages in Australia than owner-occupier mortgages. The 90+ day delinquency rates of Australian investment loans have on average been 1.16x higher than owner-occupied mortgages in the decade to September 2012; the ratio was higher at 1.51x as of September 2012.

Fitch analysis shows that regions characterised by high 90+ day delinquencies for investment properties do not, in general, experience the same trends in owner-occupied mortgages. This indicates that mortgages for investment purposes in these areas might be affected by different variables (e.g. house prices, rental yield) and in different ways than owner-occupied mortgages. Among the regions with a high concentration of investment loans, inner-metropolitan areas have low delinquency rates while tourism and/or coastal urbanisation areas tend to have above-average 90+ day delinquency rates. Among the 20 worst performing regions by 90+ day arrears for investment loans as at end September 2012 were South West Western Australia (1.53%), Gold Coast East (1.24%) and Sunshine Coast (1.1%).

This Fitch story is not a surprise. Australian holiday destinations have long been a happy hunting ground for promoters of 'opportunities' to unwary investors. What might be more relevant for New Zealand is that central city locations did not perform badly, despite a concentration of investment properties. There is no mention in the release of a worse performance in downturns (just that the relative performance was worse in 2012 compared to the long term average). However, as noted we have not had the opportunity to read the full report. Perhaps there is something there.

In the Summary of Submissions document a reference on similar lines is made to Standard and Poor's, which applies a 1.1X adjustment factor to investors. This adjustment is described by Standard and Poor's as 'qualitative' and is not based on empirical evidence.

Of interest, given the emerging debate on foreign purchases of Auckland houses, is the adjustment factor (essentially a higher capital requirement) for foreign residents. It is 1.50.

It is not clear what relevance Australian rating agency practices have for the risk assessment of New Zealand banks' loans. The loans they rate are securitised loans, and they may differ from loans held on NZ banks' books. In the Fitch study we have no information on the characteristics of the investor loans vs. non-investor loans, and it is not clear if the study controlled for possible differences.

In addition it is not clear why Australian rating agency 'evidence' is cited in

preference to New Zealand (and APRA) bank evidence, which tell a different story, when New Zealand had a more severe GFC experience than Australia.

The reference to Fitch and Standard and Poor's rating practices at least has the merit of being true. They do apply higher risk weights to investor loans. How much notice we should take of it for New Zealand prudential supervision is another story. We would suggest not very much. Supervisors have been moving away from an unthinking reliance on rating agencies since the GFC, and it would be ironic if their opinions were the primary support for the Bank's investor lending policies.

Standard and Poor's last major contribution to New Zealand risk analysis was their investment grade rating of South Canterbury Finance. Fitch rated Hanover as investment grade.

Coates, Lydon and McCarthy (2015) 'House price Volatility: the role of different buyer types'

In para. 31 it is stated *"investor lending can also be a strong driver of speculative rises in property markets, as the US and Irish experience indicates. Coates et al. (2015) document a strong rise in investor activity in Ireland during the period of strong house price appreciation*"

The Coates paper says no more than that the rise in property prices was associated with an increasing share of BTL borrowers, and that the formal analysis that might establish causation has yet to be done.

The Financial stability stability review

The Financial Stability Review referred to two sources not cited or discussed in the other documents.

Wilcox (2013) 'Rebalancing the mortgage market'

This paper was cited to support the claim that evidence from the UK found that default rates *'were relatively high amongst investors'* in a severe downturn.

The paper is about falling home ownership in the UK, and the way more conservative bank lending standards are impacting on that trend. It is not concerned with investor borrower default rates as such. The apparent reason the paper was cited is it that it has a figure with the relationship between LVR and default rates, for different borrower types, including buy-to-let. The data for the figure came from the FSA 2009 Mortgage Market review. That report paid little attention to the buy-to-let market and did not identify it as a prudential concern.

2014 ANZ Residential Property Investment Survey

It is stated that:

"In New Zealand, a significant proportion of property investors have large portfolios, implying a large degree of gearing relative to their labour income. For example, the 2014 ANZ Residential Propety Investment Survey shows that 26 percent of surveyed investors held seven or more investment properties".

What is not mentioned here is that the large investors would not be treated as retail investors by banks. They would be placed in a different loan category and would be assigned a higher risk weight. Labour income is typically not relevant for these large investors.

The survey does not cover all residential investor proporty borrowers. It is just a survey of the NZ Property Federation members. A disproportionate share of small investors are probably not members.

What was not reported by the Bank:

- "*9 out of 10 of investors intend to hold properties for the long haul; they are not 'buy-and flick' property speculators*"
- "*The average level of debt across all respondents little changed at 54.1%, down marginally from 54.5% last year".*

Regulatory Impact Statement

In para. 56 it is stated "*The LGD rates reflect the poorer quality of rental accommodation compared with owner-occupied accommodation. Possible reasons may be deferred maintenance*".

The BRANZ (2010) report, which is cited in support, found that 44 percent of rental properties were in poor condition compared to 25 percent of owner occupied dwellings. The BRANZ report was a compliance style assessment against the BRANZ vision of good practice (must have a smoke alarm, and no squeaky floor boards etc.). When tenants were asked for their opinion, 80 percent believed their property to be in good condition and only 2 percent in poor condition.

It is no secret that rental properties are, on average, of lower quality than owner-occupier properties. Tenants tend to be poorer and younger, so there is a demand for lower priced accommodation. All of this is sorted out in the market pricing of rental properties, and there is no reason to believe that, in general, loss given default will be higher on rental properties than on owner-occupied properties.

There is little empirical evidence on the difference, but we did find a study ('Predicting LGD for residential mortage loans: a two-stage model and empirical evidence for UK bank data' by an unnamed author) that examined default loss data from a major UK bank. There were 140,000 defaults in the data set. A relevant finding was that losses were higher on 'higher-end properties' compared to flats.

IV Structural factors

In the RIS it is argued that "*there are several structural factors which appear likely to make investor lending riskier at any given LVR."*

Argument one
"For a typical investor who owns their own home and several others, at for example 80 percent LVR, their gearing, relative to their labour income will be substantially higher than for a typical owner-occupier at the same LVR. This means that a substantial fall in house prices would leave the investor much more heavily underwater relative to their labour income. This diminshes the incentive to continue to service the mortgage (relative to the alternatives such as entering bankruptcy)."

It is difficult to make sense of this analysis as it stands, so we have used a simple example to explain what the Bank appears to be trying to get at.

Take the case where there are two borrowers. Profligate Bill, who has invested everything in a large $1,000,000 home, and prudent Ben (concerned about his retirement) who has a $500,000 house and two rental properties worth $500,000. They have a net rental yield of 5 percent, which generates $25,000. Both have an 80 percent LVR so they have borrowed $800,000 and their loan servicing outgoings at 6 percent is $48,000. It is not stated in the Bank's discussion, but it implied that Bill and Bens' total incomes are the same. So if Bill's after tax labour income is $120,000, then Ben's labour income is $95,000.

Now suppose that house prices fall by 40 percent, so Bill and Ben are both $200,000 underwater. The most likely outcome is that they will continue to soldier on, servicing their loans if they can. In this respect Ben's odds of being able to continue to service are better than Bill's, because if he becomes unemployed he still has the rental income (though there may be small hiccup here if one of his flats is empty for a period). Bill, on the other hand, has all his eggs in one basket.

Table two: Bill and Ben

	Ben	Bill
Property value	$1,000,000	$1,000,000
Borrowing	$800,000	$800,000
Equity	$200,000	$200,000
Labour income	$95,000	$120,000
Rental income	$25,000	nil
Loan servicing	$48,000	$48,000
Income after servicing	$72,000	$72,000
Gearing (loan/labour income)	8.42	6.67

The other option is to walk away from the property or properties, and take the bankruptcy route. It is argued that this is more likely in Ben's case because his negative equity is 2.1 times his income, compared to 1.6 for Bill. However, both will be putting their labour income at risk because of the bankruptcy; both are likely face a further shortfall when the properties are sold by the bank, and both are likely to have their income attached by the Court because they are capable of repaying the debt. Because Bill has the higher income he will have to pay the debt off more rapidly.

We don't think that there is anything in the Bank's analysis. If anything, Ben appears to be the better risk.

Argument two

"Some investors are likely to not own their own home directly (it may be in a trust and not used as security, or they may rent the home they live in). Again, this is likely to increase the incentive to stop servicing debt if it exceeds the value of their investment property portfolio. The Reserve Bank considers 'strategic default ' to be unlikely for owner occupiers in most circumstances, but it is a more realistic prospect for investors in severe downturns."

Because most small investors do have their home on the line either directly or indirectly, this risk, on a portfolio basis, would be very small. Certainly it is not sufficient to justify building a new asset class. If there was a need to capture the risk

it could be readily accommodated within the IRB system by requiring banks to place a small default rate premium on retail loans where security is not taken over an owner-occupied house.

Argument three

"*As property investor loans are disproportionately interest-only borrowers, they tend to remain nearer to the origination LVR, whereas owner-occupiers will tend to reduce their LVR through principal repayments. Evidence suggests that delinquencies on mortgage loans is highest in the years immediately after the loan is signed. As equity in a property increases through principle repayments, the risk of a particular loan falls. However this does not occur to the same extent with interest only loans".*

There are several problems with the Bank's argument.

- Borrowers with an investment property will typically have more than one loan. They will pay off the loan on the residence first, to maximise the tax benefits of interest expenses on the investment property loan. The interest only status of the investment property loan will not be good indicator of the likely improvement in the borrower's overall position.
- Contractual principal payments in the early years of a loan are very small (1 to 2 percent of the principal on an annual basis) and do not have a material impact on loan performance.
- Other principal transactions are more significant. Owner occupiers can readily increase their borrowings by 'topping up' their loan, to fund consumption or house renovations, so the contractual principal payment may not be a good guide to a borrower's future equity position.
- Bank's already use interest only status as a risk marker and apply higher capital charges where it is predictive of default.

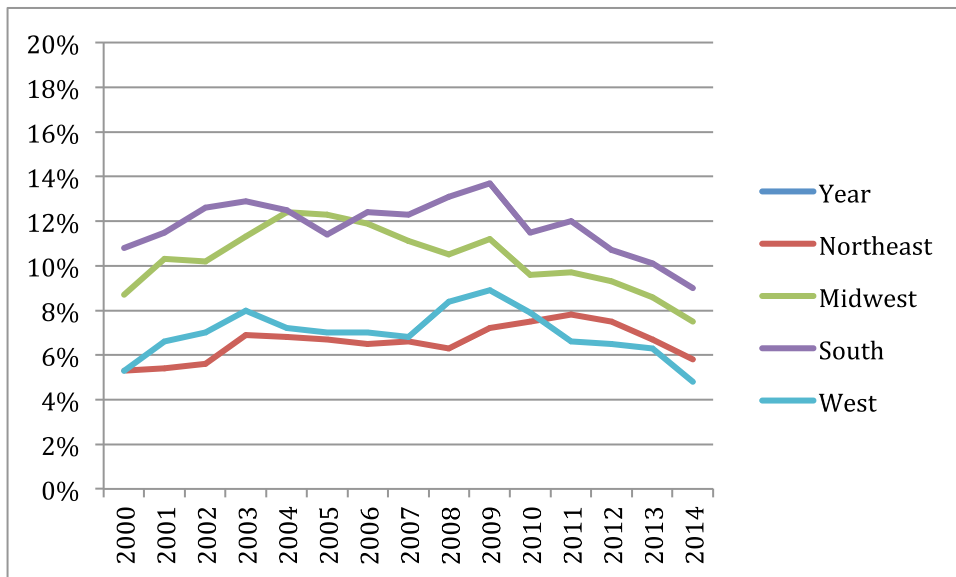
Argument four

"*Investors may face additional income volatility related to the possibility that the rental market they are operating in weakens in a severe recession (if tenants in arrears or are hard to replace when they leave for example) Furthermore, this income volatility is more closely correlated with the value of the underlying asset, since it is harder to sell an investment property that can't find a tenant"*

Retail investors will generally have lower income volatility than pure owner-occupier borrowers because their income is diversified (their labour income plus income from a number of tenants). They are less vulnerable to unemployment shocks that are the main drive of defaults. Rental income is relatively stable because residential rental markets tend to clear, even in severe shocks, unlike commercial property markets. The following figure presents US Census Bureau data on residential rental vacancy

rates. The data for the West is dominated by California, which was subject to a severe shock in the GFC. The impact on the average vacancy rate was not particularly severe of long lasting.

Fig. 1: US rental property vacancy rates



Another structural argument

In the Submissions Summary document there is a further argument (para.16) relating to diversification benefits:

"If the investor's debt servicing is dependent on both their labour income and their rental income, they become in effect more exposed to systemic risk as they assume not only their own unemployment risk but that of their tenants."

This argument ignores basic diversification principles. It is equivalent to saying that a diversified share portfolio is more exposed to systemic risk than a portfolio with just a single share because it is exposed to the risk of more shares.

V Compliance with 'international standards'

In the first consultation document, aligning with Basel II IRB requirement is mentioned as being an important consideration.

"This option (one) is closely aligned with the relevant Basel II IRB requirement that states (emphasis added) "......Residential mortgage loans (including first and subsequent liens, term loans and revolving home equity lines of credit) are eligible for

retail treatment regardless of exposure size so long as the credit is ***extended to an individual that is an owner occupier of the property"***

The quotation omits, what in this context, is an important qualifier.
"(*with the understanding that supervisors exercise reasonable flexibility regarding buildings containing only a few rental units – otherwise they are treated as corporate). Loans secured by a single or small number of condominium or co-operative residential housing units in a single building or complex also fall within the scope of the residential mortgage category. National supervisors may set limits on the maximum number of housing units per exposure."*

Our interpretation of the Basel definition is that it reflects the intent that small residential property investors not be treated as corporates, and an understanding that their risk is similar to owner-occupier investors.

We think that the deletion of the qualifier to the definition was a **material omission.**

The Bank's response

The Bank's response to being 'caught out' on the above omission was to state its view "*that the Basel committee expects that its intention, to restrict the residential mortgage category to owner-ocupier loans, be applied regardless of the types of rental accommodation within a jurisdcition"* (Summary of Submissions para. 13)
Para 14 goes on:
"*Indeed, in its most recent Regulatory Consistency Assessment Programme assessment of Basel III regulations in Australia, perhaps the most similar country to New Zealand in terms of the structure of the rental property market, the Basel Committee chided that country's prudential regulator for the way in which all mortgage loans are grouped in the same retail asset class. In its report, the Assessment Team noted:*

Under APRA's IRB Prudential Standards, mortgage loans are eligible for retail treatment regardless of the occupancy status of the property which, in the Assessment Team's opinion, is a deviation from the Basel Framework….. APRA has indicated that there has not been a material difference in the performance of owner-occupied versus non-owner-occupied residential mortgages in recent history, even between 2008 and 2009, which was a period of higher default experience. However, it is not certain what the performance of these [non-owner occupied mortgage] loans would be during a significant economic downturn, such as that experienced in Australia during the early 1990s, or whether the risk characteristics of such loans would remain similar to those of owner-occupied loans in such a circumstance. Accordingly the likely potential risk for capital understatement that could result from

APRA's current treatment of non-owner occupied mortgages was considered material. On this basis, the RCAP team views this deviation as potentially material."

What was left out from this quotation was APRA's explanation, which we have re-inserted in red. We think that the excision, in this context, was a **material omission.**

There is no mention in any of the Bank's documents of APRA's response to their 'chiding', which was presented in the RCAP document the Bank cites. It was as follows:

*"In particular, the Assessment Team has rated APRA's approach to residential mortgage exposures eligible for retail treatment under the IRB approach as a potentially material deviation, as APRA does not include an owner-occupancy constraint. A literal interpretation of the relevant paragraph in the Basel Framework can exclude non-owner occupied exposures. In APRA's view, however, the paragraph is ambiguous and a **large number of other Basel Committee member jurisdictions have implemented the relevant paragraph in the same manner as APRA**"* (our emphasis).

The failure to present the APRA response was a **material omission**.

We also think that the Bank's argument that New Zealand is somehow out of step with what is implied to be a considered Basel view is exaggerated. The Bank's argument appears to be based on little more than a 'throw-away line' from the Australia RCAP team.

We are not aware that there is any Basel Committee paper, in the public domain, that considers the relative risk of retail residential lending exposures, still less concludes that the risk for investment loans is higher. We also note the approach taken Basel Committee's current review of the standardised framework. Principle 2 of the review reads as follows:

"Principle 2: Capital charges from the standardised approach should reflect to a reasonable extent the risk of the exposures and provide the correct incentives for banks considering the overall policy objectives. The standardised approach should provide a meaningful differentiation of risk with the ultimate goal of improving ex post risk sensitivity. Riskier exposures should generally receive capital charges higher than less risky exposures."

If retail investment residential mortgage exposures were a major risk sensitivity issue, this would have been the time to introduce the distinction into the framework. There was no such suggestion in the Consulation document.

Finally, the following statement in the RIS seems oddly discordant with the approach to 'regulatory complicance' taken elsewhere in the documents.

"*This option would go some way towards meeting the Basel guidelines or* ***, depending on one's interpretation of them, might even be fully in line with them. The relevant recommendation in the Basel guidelines allows the regulator to apply discretion to reflect national specificities"*** (our emphasis).

VI Conclusion

The Reserve Bank's position is summarised in the following statement in the Summary of Submissions document.

"The Reserve Bank does not dispute the existence of differences in lending standards and the degree of conservativeness between banking industries in New Zealand and other countries, and agrees that New Zealand has not had a severe downturn in its housing market in recent decades. However, the Reserve Bank does not consider these arguments as sufficient reasons to disregard pertinent lessons from downturns in the housing markets of other countries, and the Basel Committee's recommendations, both of which suggest that property investors have a different risk profile to owner - occupiers in any given jurisdiction"

We think it is clear that the 'lessons' from downturns in other countries do not suggest that property investors have a different risk profile to owner-occupiers in any given jurisdiction. The 'pertinent' lesson from the GFC is that it was bad banking practices, not lending to small property investors, that was the underlying problem.

The claim made with respect to the Basel Committee's 'recommendations' does not withstand scutiny.

As Jeremy Clarkson[1] might put it: "Some say that the Bank believes leprechuans are real, and that King Canute rolled back the sea. All we know, it's bad analysis"

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[1] Note that Clarkson, is not an economist, and on the evidence, is not a risk manager. Also, there is no evidence that he coined the phrase 'Single unelected official'.