FSC Mortgage Loan Performance Assessment: with REAL Data

xds
xpert decision systems

Centre for Affordable Housing Finance in Africa
A division of FinMark Trust

FinMark Forum
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5:30 – 7:30
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Agenda

Looking back, moving forward

Getting to the point: how did FSC mortgages perform?

Some exciting next steps

Over a year ago, FinMark asked a set of key questions relating to FSC end user housing loans:

How have FSC loans performed?

- One and a half years after the end of the first phase of the FSC what do we now know about the performance of the 230,000+ mortgages and 570,000+ other housing loans originated as part of the FSC?
- How did mortgage loans perform over the variable interest rate cycle and how does this performance compare with performance in the market as a whole?
- What are the key risks in this market and how do these differ from risks in higher income segments?

What levels of access exist?

- Performance and access are two sides of the same coin. Performance can only be assessed with reference to access
- What are the key access barriers that inhibit borrowers from accessing housing finance?

So what?

- Based on what we know about performance and access in the FSC target market what interventions (if any) are required to support further market development?
- Given the availability of the proposed R1bn guarantee, how best should this facility be applied to support access and performance?

What data do we need?

- In light of the above what data should the industry be accessing and analysing on an on-going basis to assess market performance?
- How should this data be obtained? Who should provide it? Who should have access to it?

In summary, we found little

Access

- There is no data to assess access directly
- There was a noticeable decline in loan origination
- Data strongly suggests a decrease in the proportion of mortgages used to fund the purchase of homes
- There is no data to assess the reason for decline although discussions with developers indicates affordability (too much other credit) and impaired credit histories dominate
- The data for every housing loan application (including unsecured loans) is submitted by banks to the Office of Disclosure annually but no aggregated data is released

Performance

"*Despite tough economic conditions, we are pleased to note that the entry level housing market continued to hold its own in terms of arrears as measured against the middle- to upper-income market segments. We believe this underscores both the need to retain banks' prudent origination and collection standards in this market and the willingness by homeowners to service their mortgage obligations……*

….We expect a tougher environment for 2009 because, at the time of finalising this review, all indications were that a number of factors will have a negative impact on the disposable income of people in this market. These include a 500 basis points rise in interest rates over two years, 33% growth in the average price of food, a doubling of fuel prices and sharp increases in both electricity and municipal utilities/rates and taxes. However, given historical successes, our members continue to make progress with this socio-economic imperative in South Africa. -
BASA's 2008 Annual Review

Partly in response, FinMark launched the Housing Finance Temperature Gauge which relies on perceptions of lenders and developers

Table 4: Approach towards credit granting criteria Q2 2010 to Q2 2011: Lenders' perspective

Housing finance segment	Much more strict	More strict	The Same	Less strict	Much more relaxed
Incremental Financing	0%	20%	60%	20%	0%
Non-Bank Mortgages	0%	20%	60%	20%	0%
Bank Mortgages < R350 000	0%	60%	0%	40%	0%
Mortgages R350K to R500K	0%	60%	0%	40%	0%
Mortgages >R500K	0%	60%	20%	20%	0%

Table 10: Trend in non-performing loans from Q2 2010 to Q2 2011: Lenders' perspective

Housing finance segment	Arrears increased a lot	Arrears increased a little	The same	Arrears decreased a little	Arrears decreased a lot
Incremental Financing	0%	0%	40%	60%	0%
Non-Bank mortgages	0%	33%	33%	33%	0%
Bank Mortgages < R350 000	0%	0%	0%	80%	20%
Bank Mortgages R350K to R500K	0%	0%	0%	80%	20%
Bank Mortgages >R500K	0%	0%	0%	60%	40%

At the same time, FinMark approached the CPA to obtain access to credit bureau data to assess mortgage performance. A key challenge was identifying FSC mortgages

Step 1: Identify affordable areas

- Only mortgages granted in lower income or affordable areas as identified by the Affordable Land and Housing Data Centre were used

Step 2: Include individual borrowers only

- Only those bonds registered by individuals were used (companies and institutions were excluded).
- Traders (defined as those who transact more than once a year) were also excluded

Step 3: Select mortgages granted by the big four retail banks only

- Only mortgages originated by the big four banks were included in the analysis

Step 4: Identify affordable primary bonds

- These are identified using a 20 year bond at prime +2 (prevailing at the time of bond registration) and a maximum affordability threshold of 30% of income using the upper limit of FSC band for that year

Step 5: Identify affordable secondary bonds

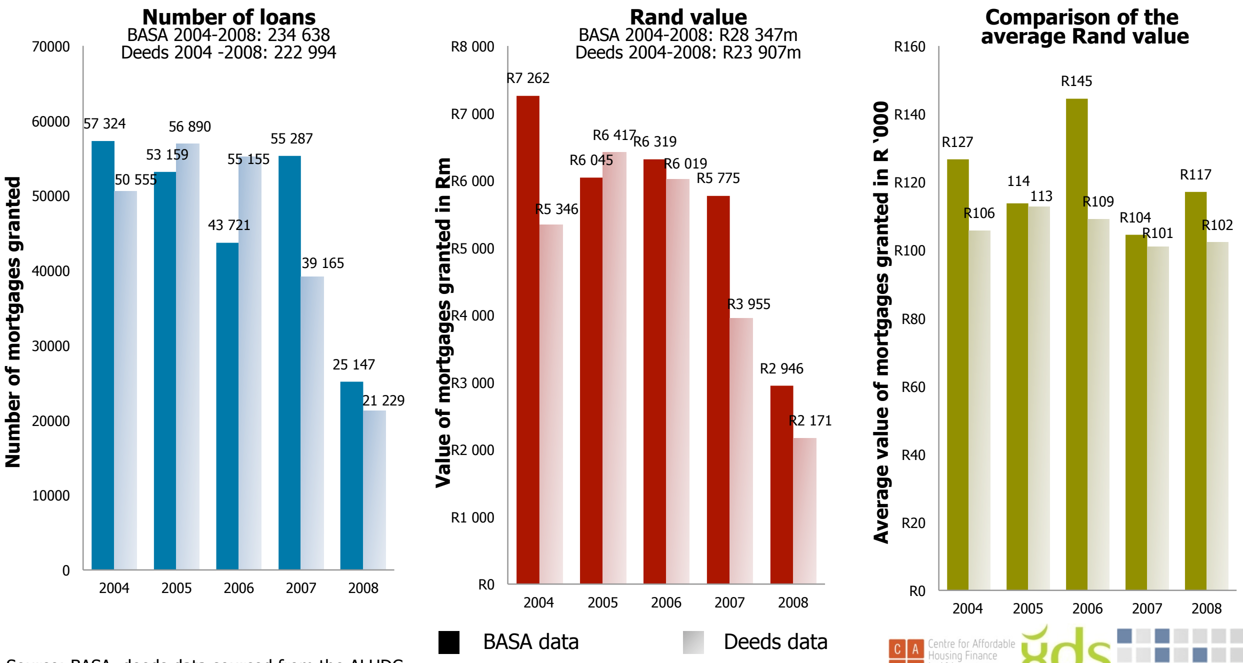
- Link the secondary mortgage to the original primary mortgage
- Exclude the secondary mortgage if the initial primary bond is not 'affordable' (using criteria above). Where the primary bond was registered prior to 2004, the upper limit of the FSC income band is calculated by adjusting the 2008 amount for inflation
- For the secondary mortgage to be affordable, the total outstanding capital of the secondary bond plus remaining capital of the primary bond (assuming no pre-payment) must be affordable using a 20 year bond at Prime +2 (prevailing at the time of the secondary bond registration) and a maximum affordability threshold of 30% of income using upper limit of FSC band for that year

Note: The prime rate, as well as the inflation rate, was obtained from the South African Reserve Bank

The analysis provides a sufficiently close match to enable further analysis

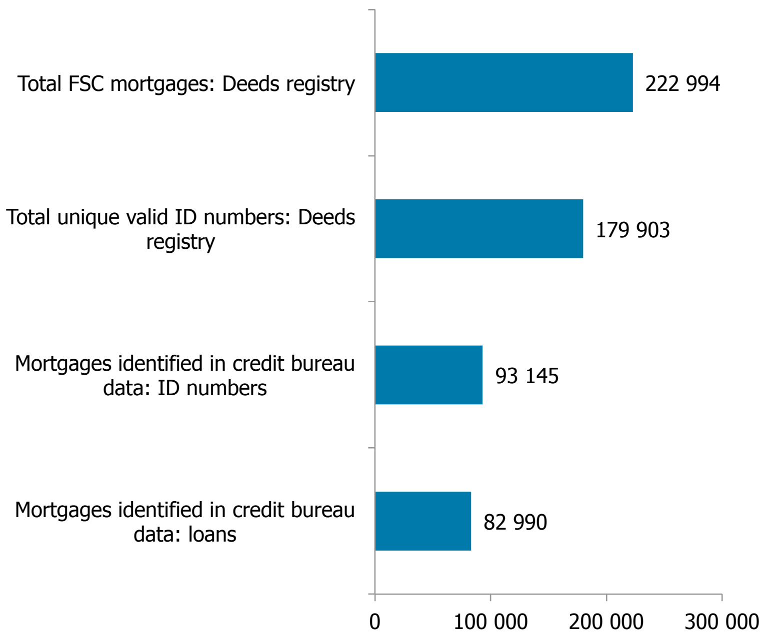
Comparison between BASA data and Deeds data

(FSC target market)



Source: BASA, deeds data sourced from the ALHDC

179 903 valid unique borrower ID numbers were associated with the 223 000 mortgages identified. These were forwarded to XDS, a registered credit bureau



37% of proxy FSC mortgages identified in credit bureau data. This sample is sufficiently large to support the analysis BUT is there reason to suspect a bias in the sample?

Is there a bias in the sample or is it good enough?

Note: Joint loans were not submitted to credit bureaus prior to 2007

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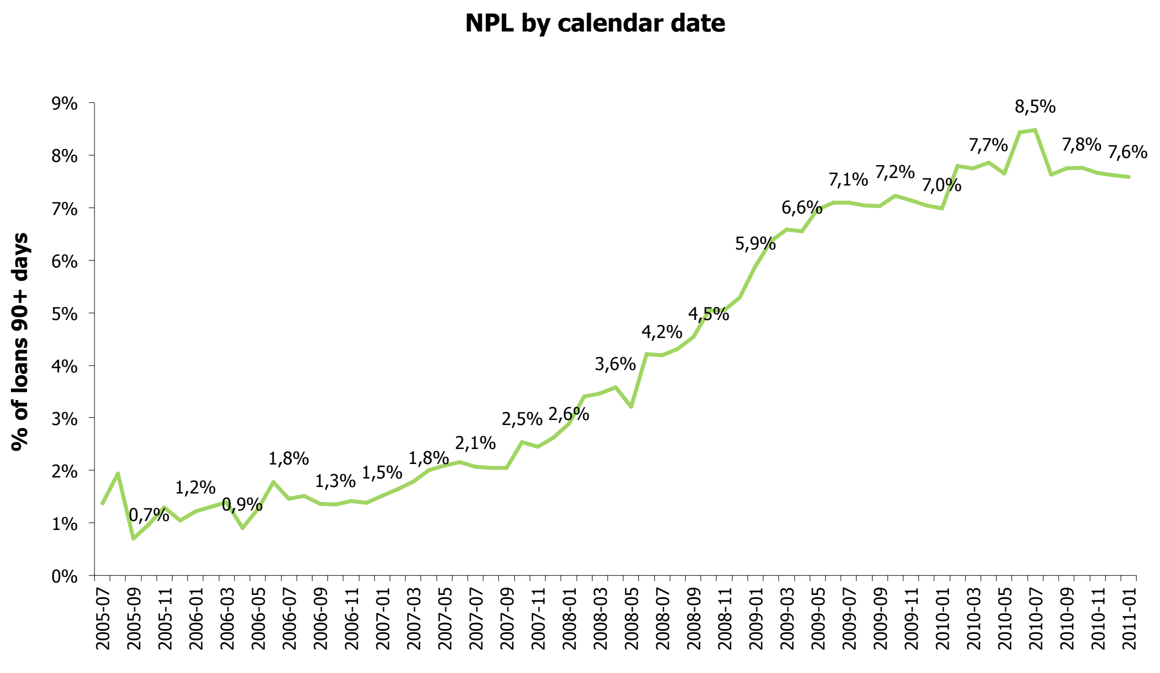
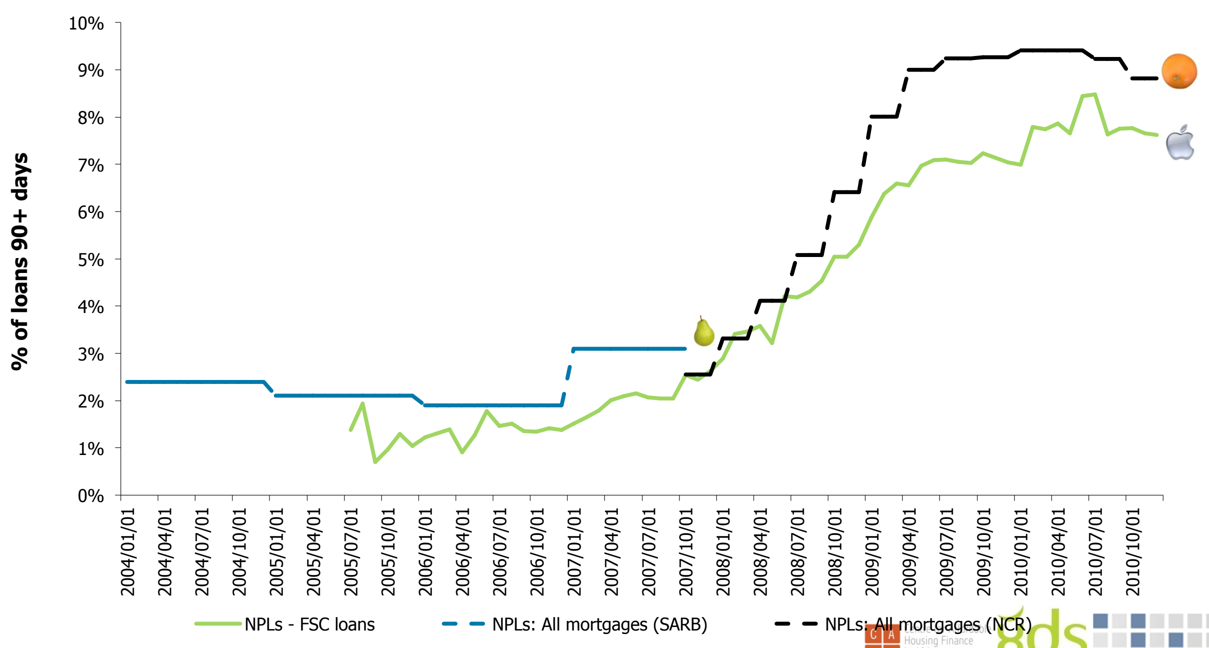
7.6% of FSC mortgages by value were 90 days or more in arrears in January 2011. Performance deteriorated noticeably from very low levels during 2006



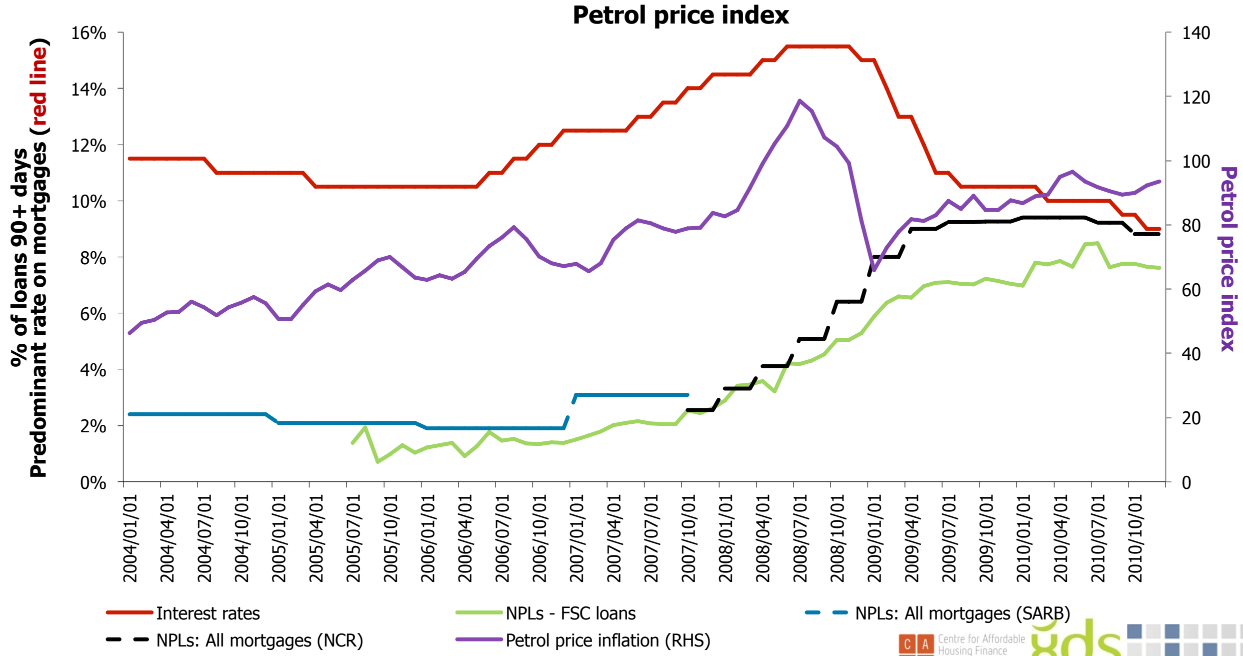
FSC loans appear to have performed slightly better than mortgages as a whole as reported by regulators. Ideally the analysis should be conducted on the same data source using the same methodology over the same origination window

NPLs: FSC mortgages compared to all mortgages



The reason for the deterioration in performance are well known. Prime interest rates increased from 10.5% in June 2006 to 15.5% two years later. Petrol and other commodity prices also increased sharply over that period

NPLs: FSC mortgages compared to all mortgages
Prime interest rate
Petrol price index

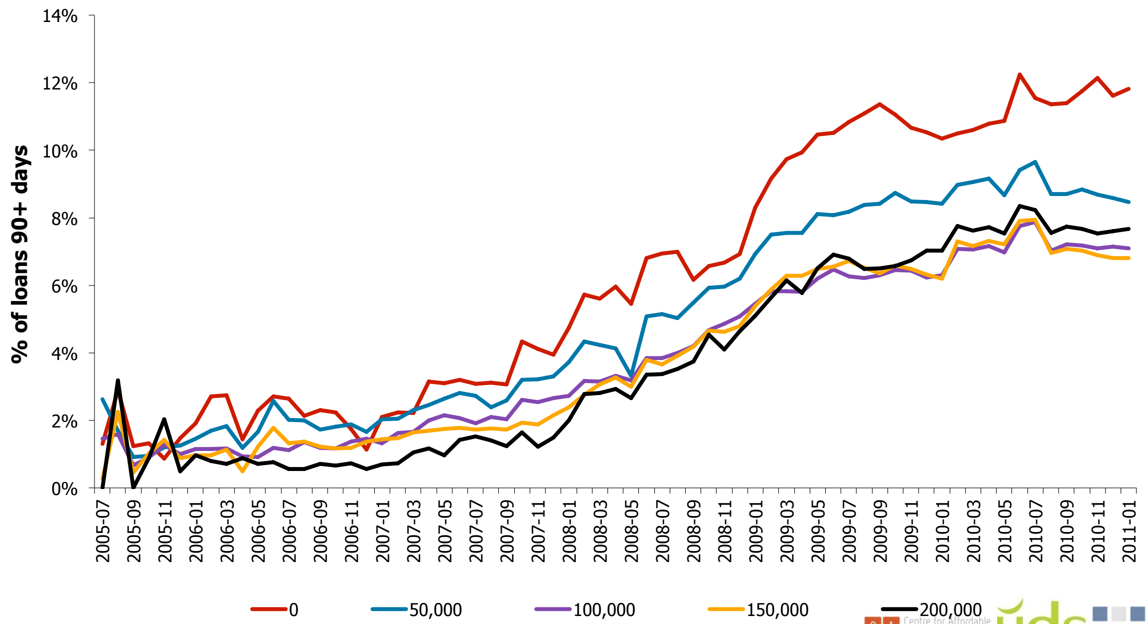


We can segment the loans by a range of dimension to explore how the probability of default differs across segments

NPLs by gender

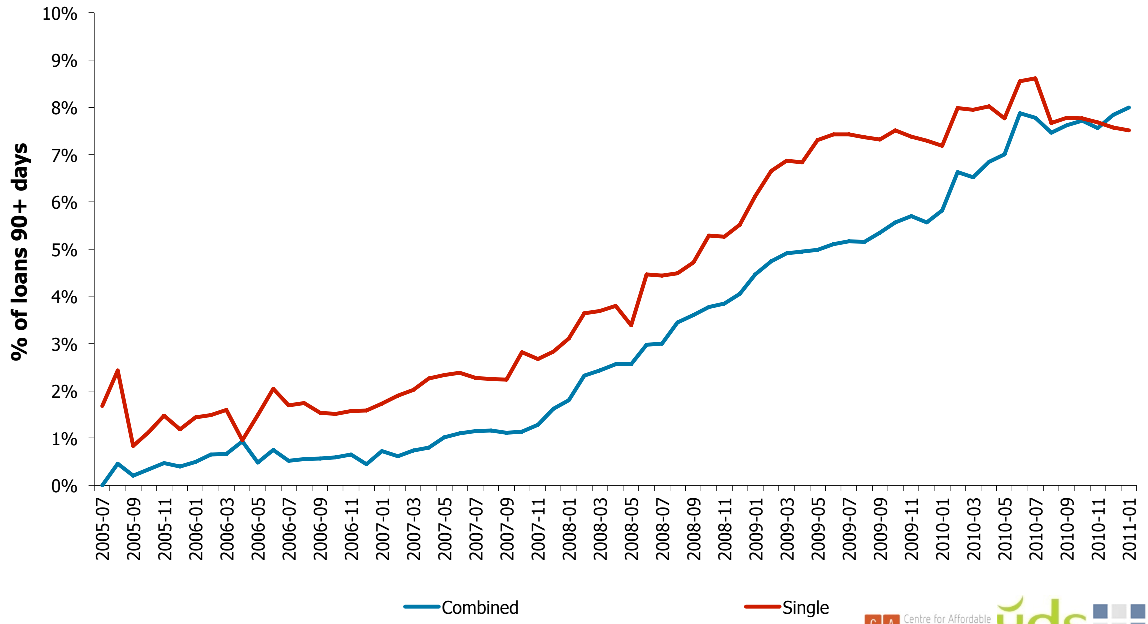
In general, the smallest loans appear to have performed worst

NPLs by opening balance



Joint mortgages appear to have performed better than single mortgages

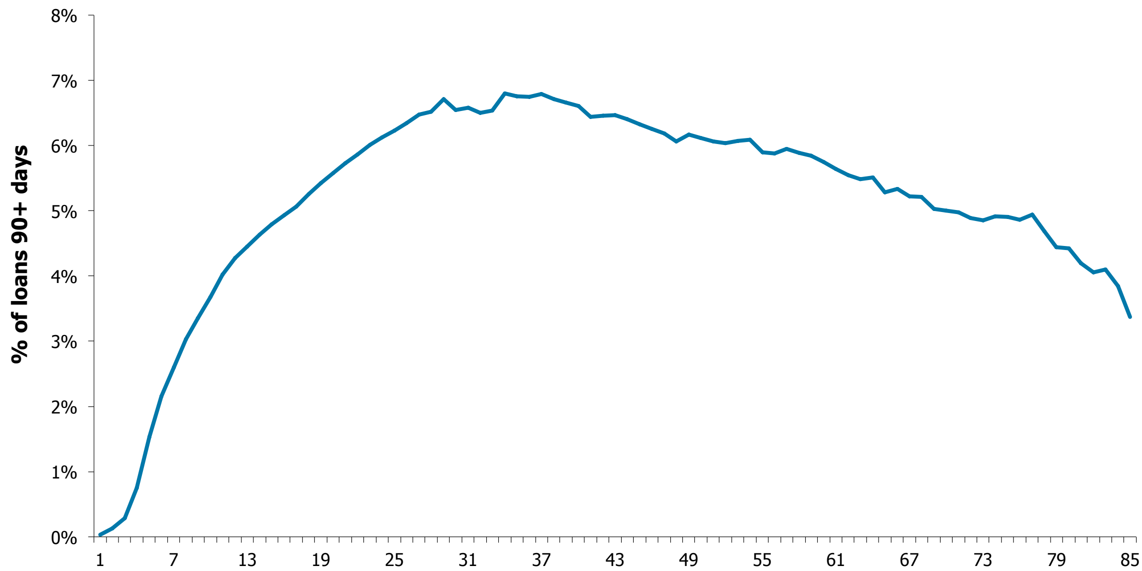
NPLs by mortgage type: Single Vs Combined



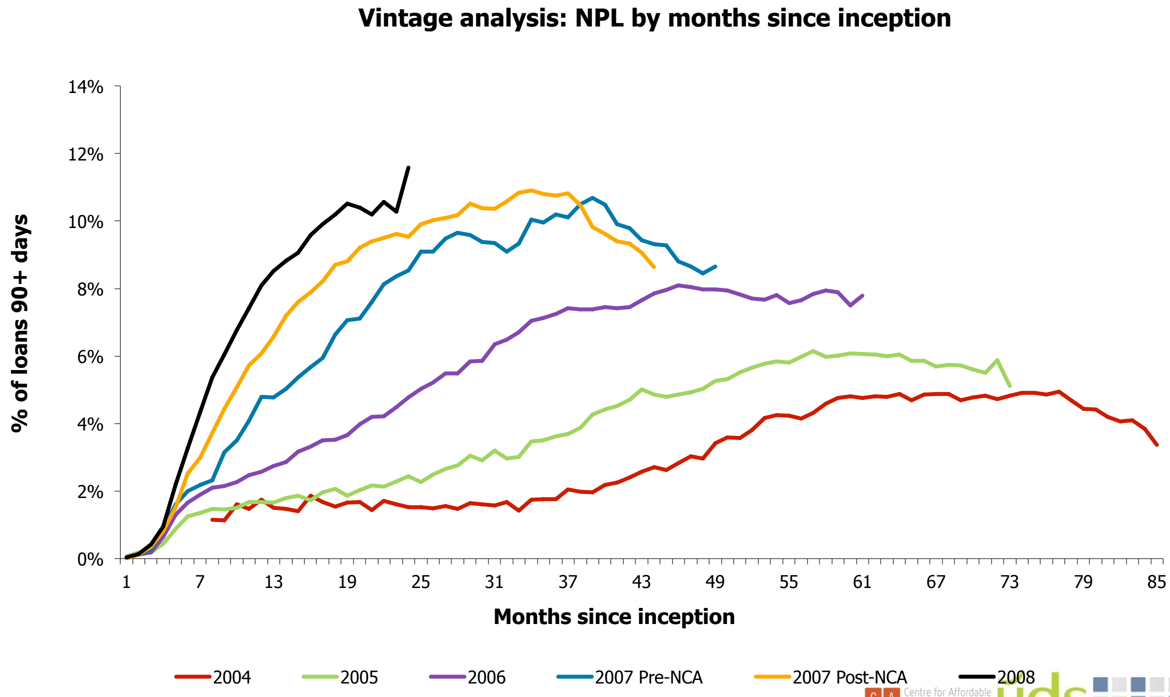
Note: In the data provided, second mortgages where grouped with the primary mortgages, giving 'combined' mortgages

For the FSC book as a whole, NPLs appear to increase steadily during the first two years

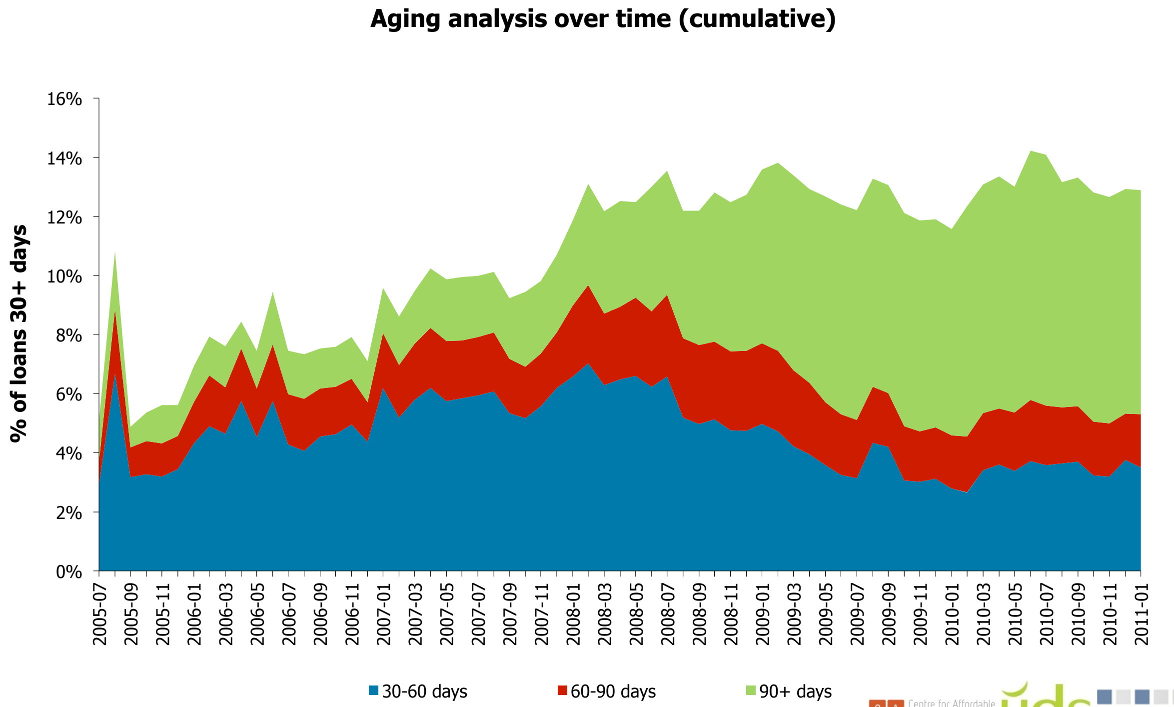
NPL by months since inception



A vintage analysis highlights how this is impacted upon by the date of origination. The pattern across years is noticeably different

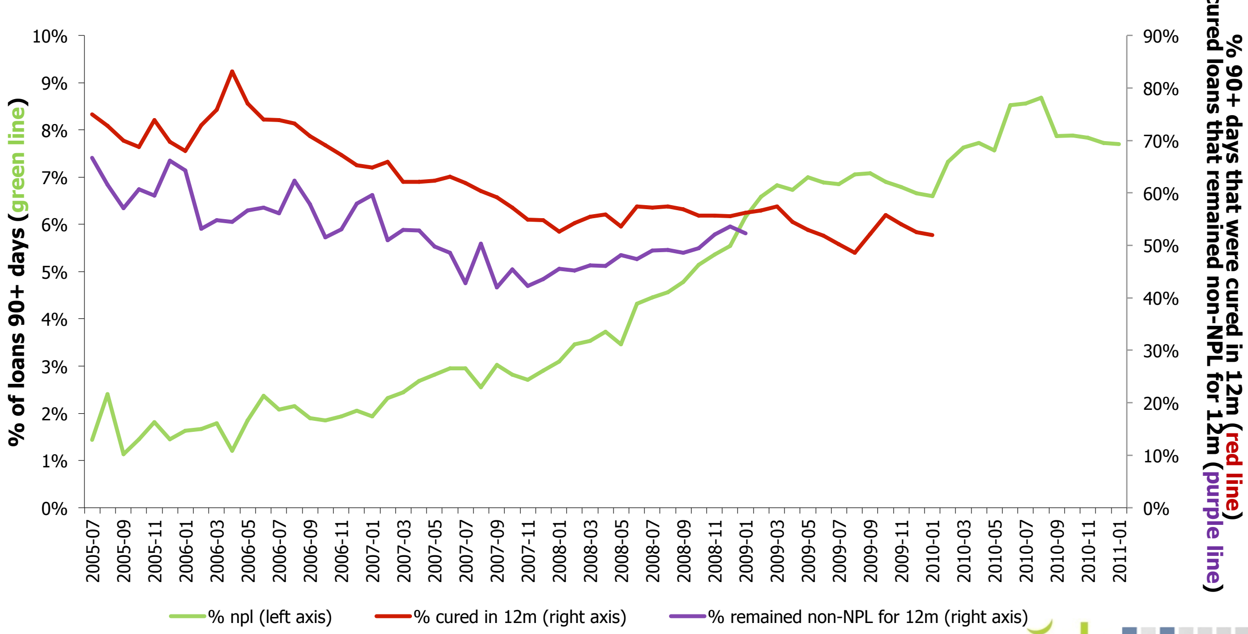


An aging analysis indicates that performance is likely to improve



The analysis explored the likelihood of defaulting loans becoming 'cured'. Cure rates declined steadily as did the proportion of cured loans that remained cured for 12 months

Cure rates



The analysis also explored performance by area. This varies significantly

NPL by suburb: 20 worst performing areas

	2005	2006	2007	2008	2009	2010
TAFELSIG (Cape Town)	1.7%	2.6%	5.3%	12.9%	20.5%	23.0%
EASTRIDGE (Cape Town)	6.7%	6.5%	5.8%	8.9%	14.8%	16.8%
MITCHELLS PLAIN (Cape Town)	0.0%	1.1%	0.9%	7.7%	12.6%	18.7%
BETHELSDORP (Nelson Mandela Bay)	0.0%	0.2%	1.8%	8.2%	14.6%	17.4%
BONTHEUWEL (Cape Town)	3.2%	3.2%	3.9%	8.3%	10.1%	16.3%
BEACON VALLEY (Cape Town)	0.0%	2.0%	2.5%	8.8%	12.0%	15.5%
MACASSAR (Cape Town)	8.8%	3.0%	1.6%	2.2%	14.8%	14.5%
UITENHAGE (Nelson Mandela Bay)	0.0%	1.6%	2.1%	5.2%	10.9%	15.4%
BELHAR (Cape Town)	2.0%	4.3%	1.5%	6.3%	11.9%	13.9%
WESTRIDGE (Cape Town)	0.9%	1.4%	3.8%	9.9%	11.8%	13.0%
KATLEHONG (Ekurhuleni)	0.8%	2.6%	4.6%	8.1%	11.7%	12.2%
TOKOZA (Ekurhuleni)	7.8%	2.7%	5.7%	8.6%	10.2%	11.2%
KHAYELITSHA (Cape Town)	2.2%	2.9%	3.4%	7.6%	9.8%	11.9%
ALEXANDRA (City of Johannesburg)	0.0%	1.6%	1.9%	7.0%	14.3%	10.9%
LENTEGEUR (Cape Town)	1.0%	2.5%	3.4%	5.7%	8.8%	11.8%
PORT ELIZABETH	0.0%	0.0%	0.8%	1.5%	8.1%	13.4%
KWANOBUHLE (Nelson Mandela Bay)	0.0%	0.8%	8.0%	8.7%	8.4%	8.7%
EERSTE RIVER (Cape Town)	0.0%	1.9%	3.1%	3.2%	6.5%	13.0%
PHOENIX (Ethekwini)	0.0%	1.3%	4.2%	4.3%	9.9%	10.1%
JOHANNESBURG	0.0%	0.8%	3.1%	4.3%	10.7%	10.7%

In summary:

- FSC mortgages appear to have performed slightly better than mortgages as a whole
- BUT
- It is difficult to draw firm conclusions:
  - We need to conduct the analysis on a like-for-like basis
  - Even if the probability of default is lower for FSC mortgages, this does not necessarily mean the loans are less risky than other mortgages. We need to explore loss given default as well as probability of default

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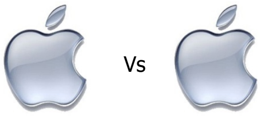
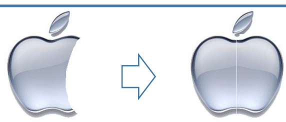
FinMark Trust's CAHF aims to conduct the analysis quarterly and to augment it continuously



Comparing apples with apples

- Performance must be benchmarked
- To do this we need to do a like-for-like comparison against other segments of the market
- The next round of analysis will be based on:
  - A matched cohort
  - Across the market
  - Calculated the same way



Understanding risk more fully

- The analysis has focused on the risk of default and has explored this across loan, property and customer-based various dimensions
- This can be extended to include:
  - LTV (where applicable)
  - Mortgage type (purchase / equity withdrawal)

What else?

repeat buyer…..

- Other data (for example on debt counselling) can be incorporated into the analysis
- But there is more to risk than default alone
- We need to explore loss given default too

Bringing in some colour

- How does performance of other credit products relate to mortgage performance? (i.e. are there leading indicators of default?)
- How does borrowing behaviour change when borrowers get mortgages?
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Thank you