

Top-down bank stress testing of credit losses and deposits

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Top down stress test
background

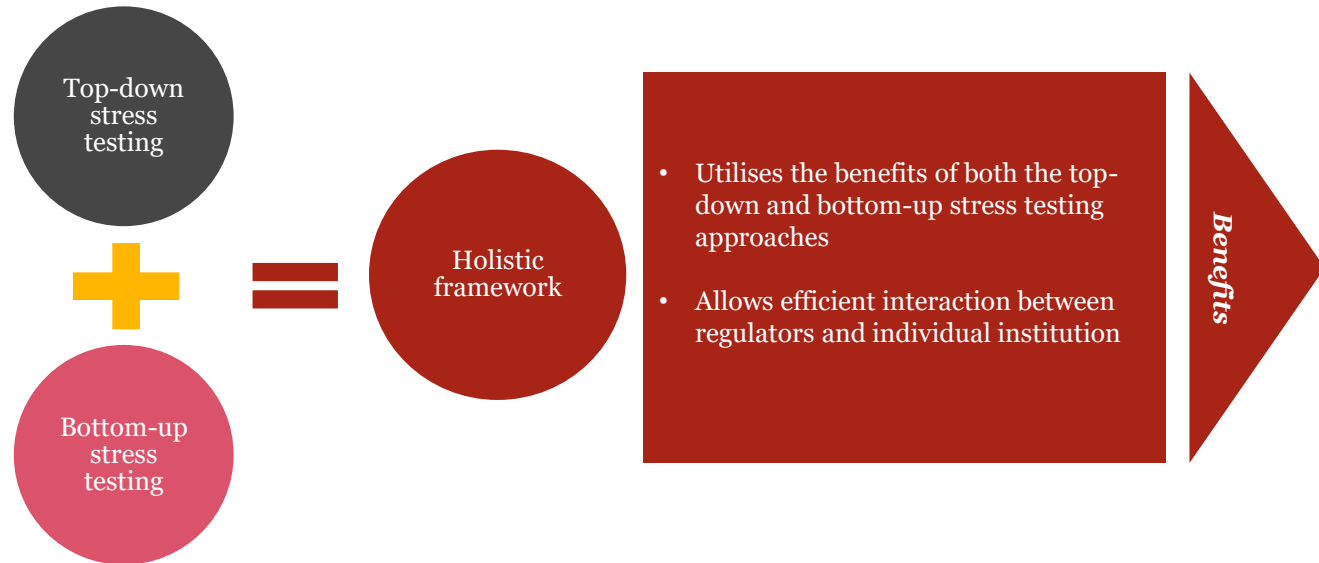
Bank balance sheet



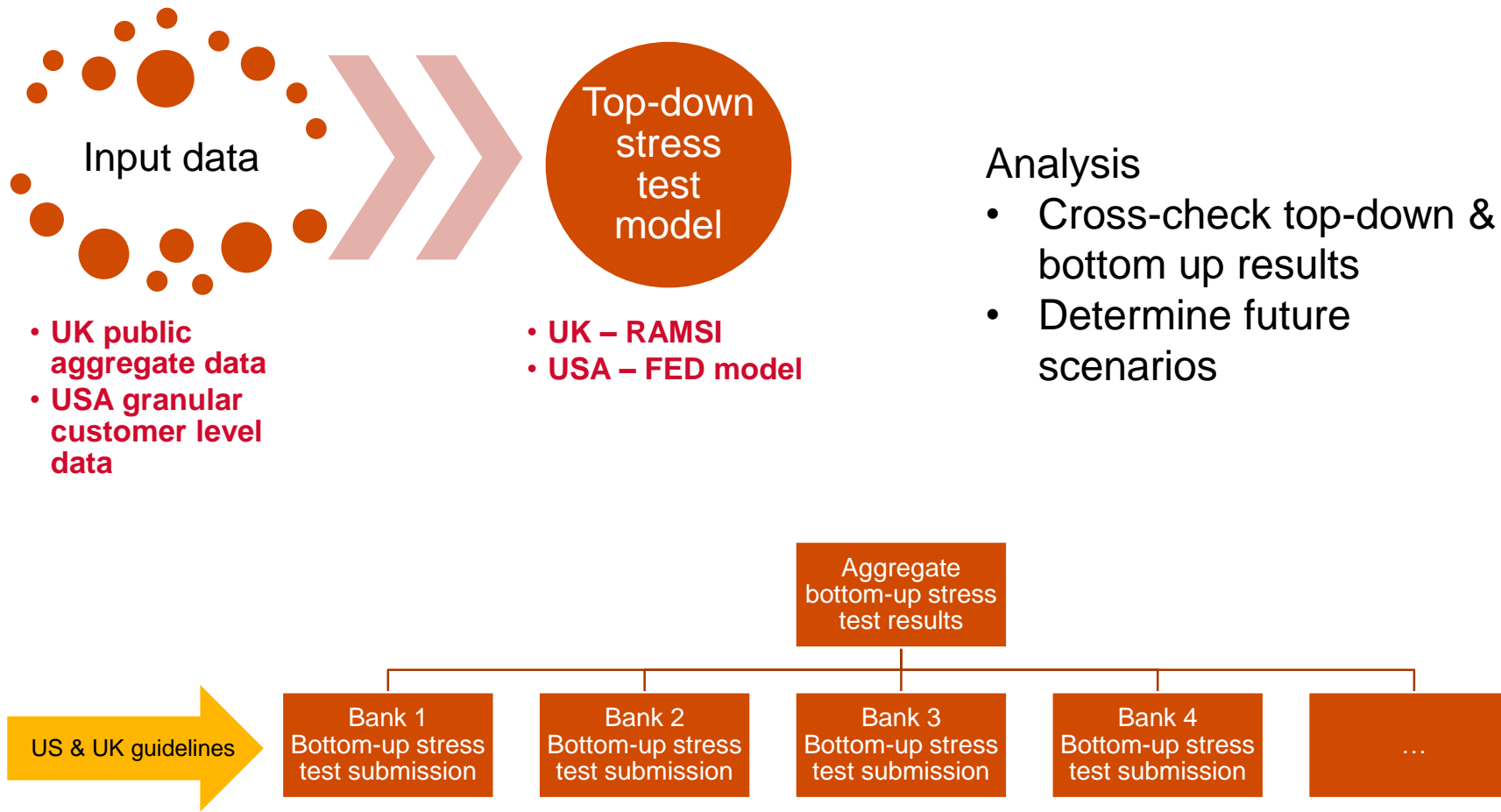
Top down VS bottom up modelling

- Modelling on aggregate data
- Less calculation-intensive and requires less individual obligor, facility and counterparty data for stress testing
- Provides a relatively quicker, high level estimate of impact on key financial measures of stress scenarios
- Can be used to validate individual bottom up stress tests

- Captures impact of shocks and scenarios using data from individual counterparties and exposures
- Captures portfolio specific dynamics and provides a micro assessment of impact of systemic shocks
- Models systemic and portfolio specific impacts thus capturing the intra portfolio correlation impacts in a robust manner



Top down stress testing in USA & UK

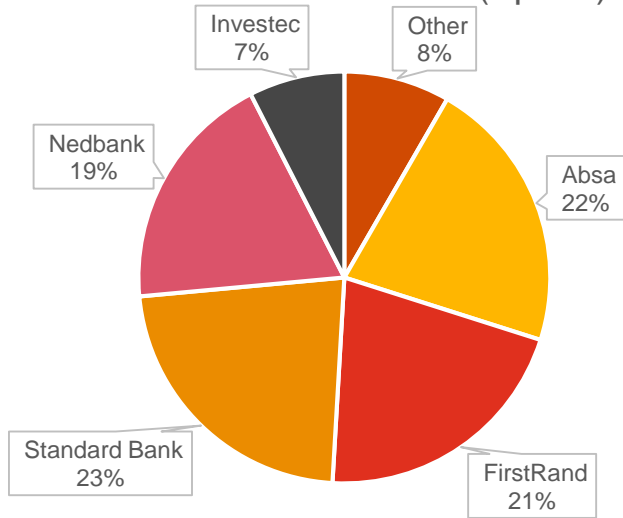


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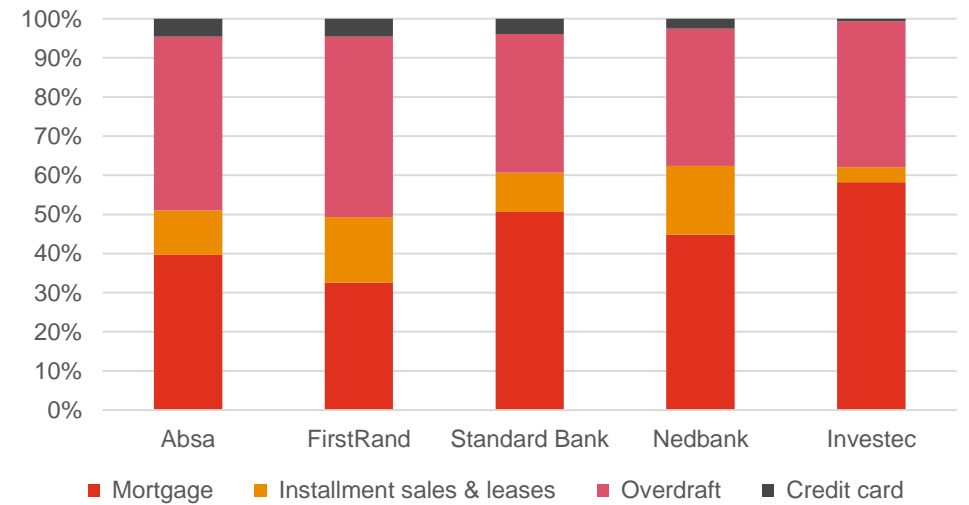
South African market

Loans

Loans in the SA market (Apr'19)

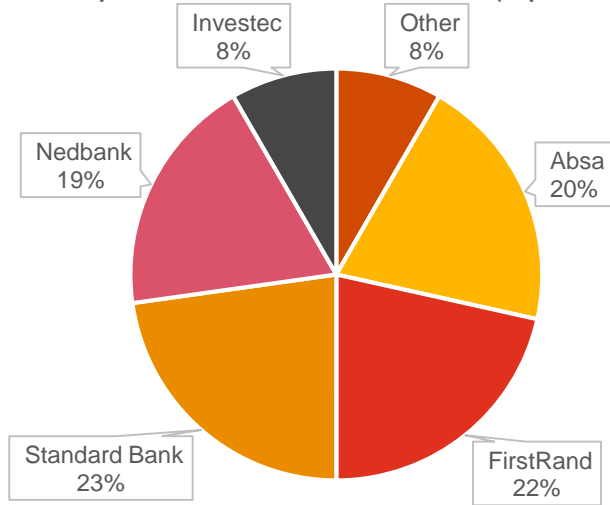


Loan types for biggest SA banks

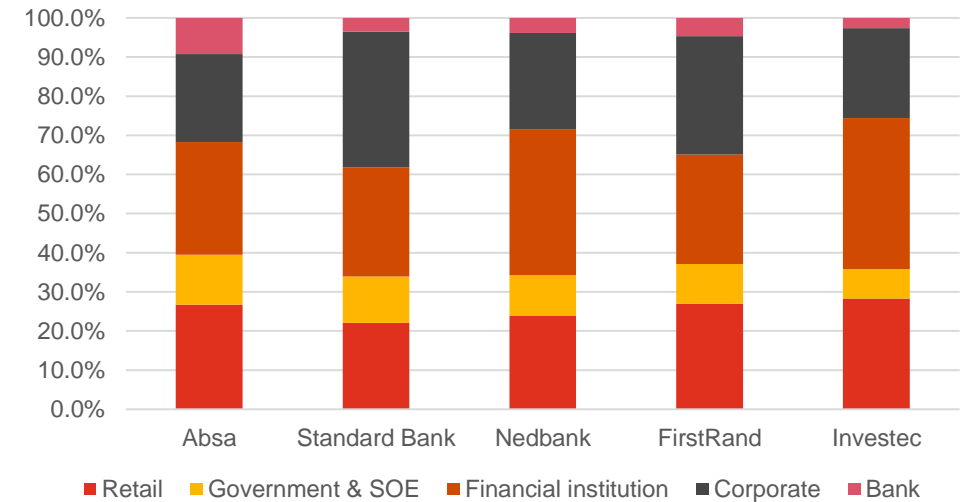


Deposits

Deposits in the SA market (Apr'19)

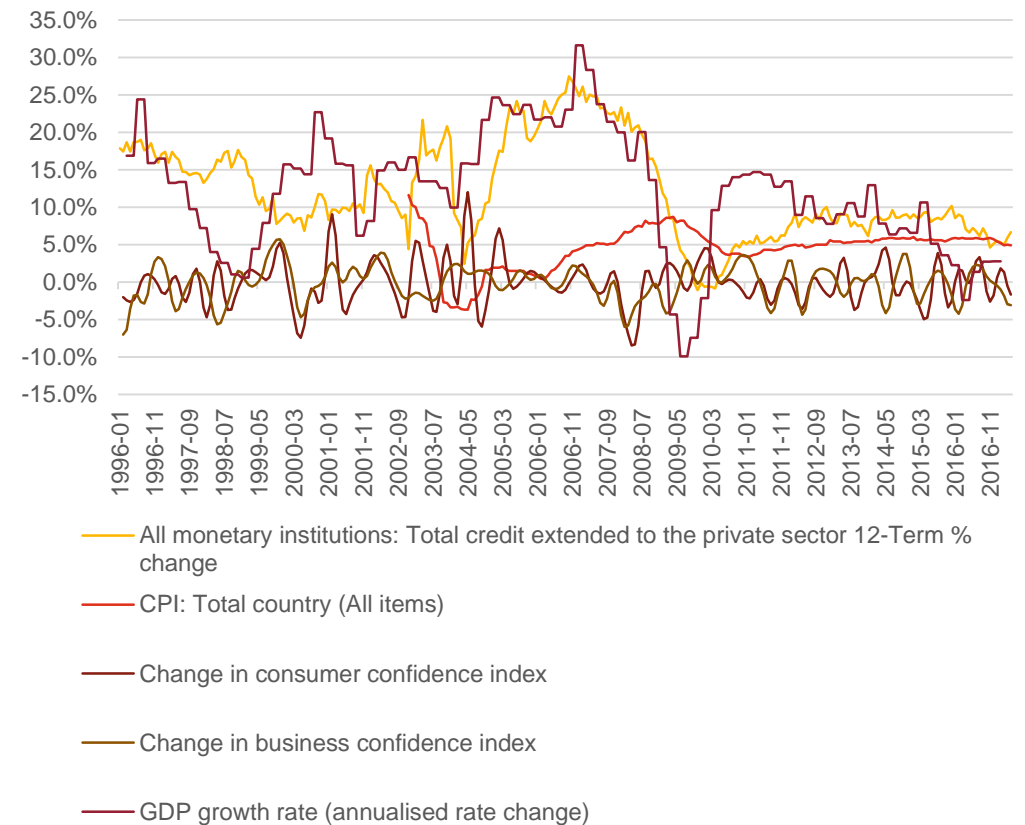


Deposit types for biggest SA banks



Key economic factors

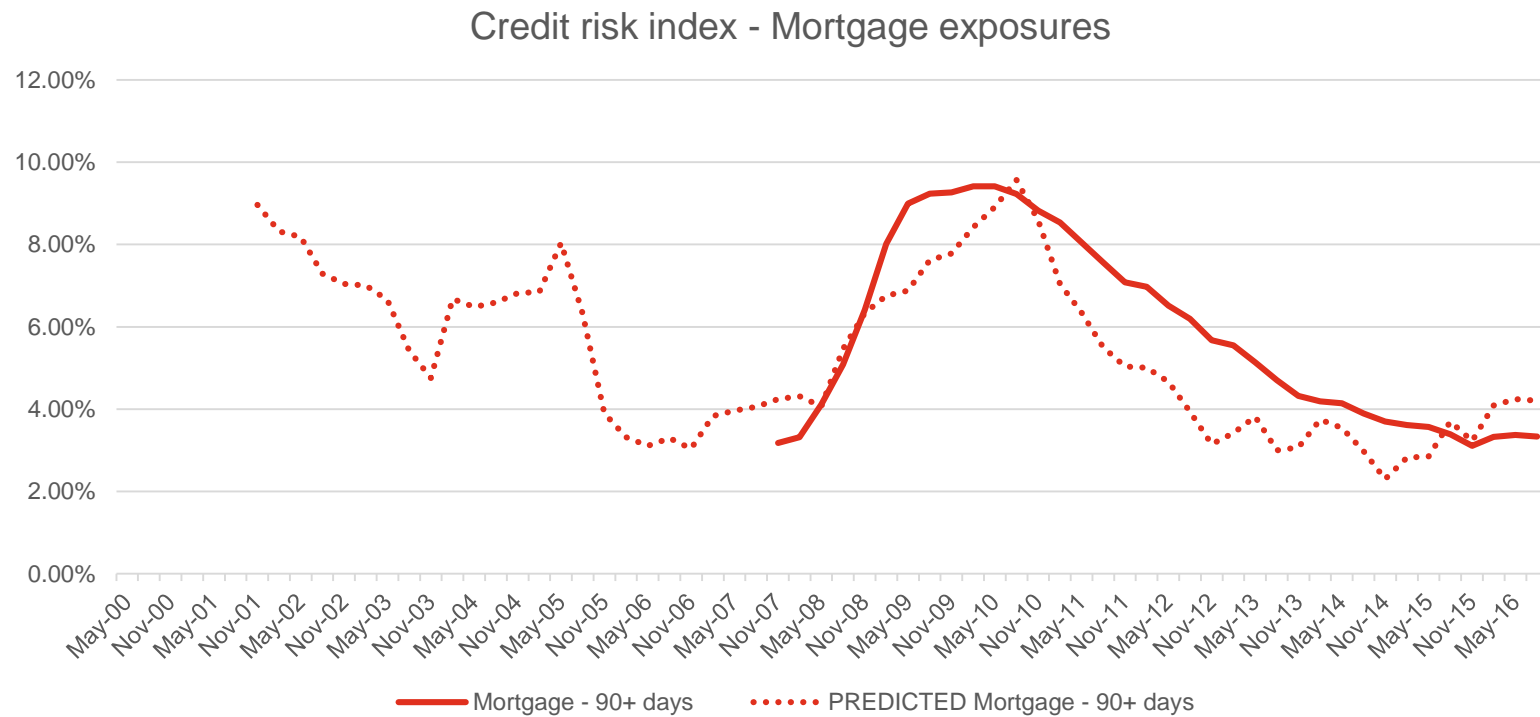
- Prime overdraft rate (End of Period)
- Total credit extended to the private sector 12-Term % change
- CPI: Total country (All items)
- Government bond yield - 0-3; 3-5; 5-10 and 10+ years
- JSE ALSI Value
- Consumer confidence
- Business confidence
- GDP at market prices
- Disposable income of households
- National government deficit / surplus as % of GDP
- Ratio of gross savings to GDP
- Household debt to disposable income of households



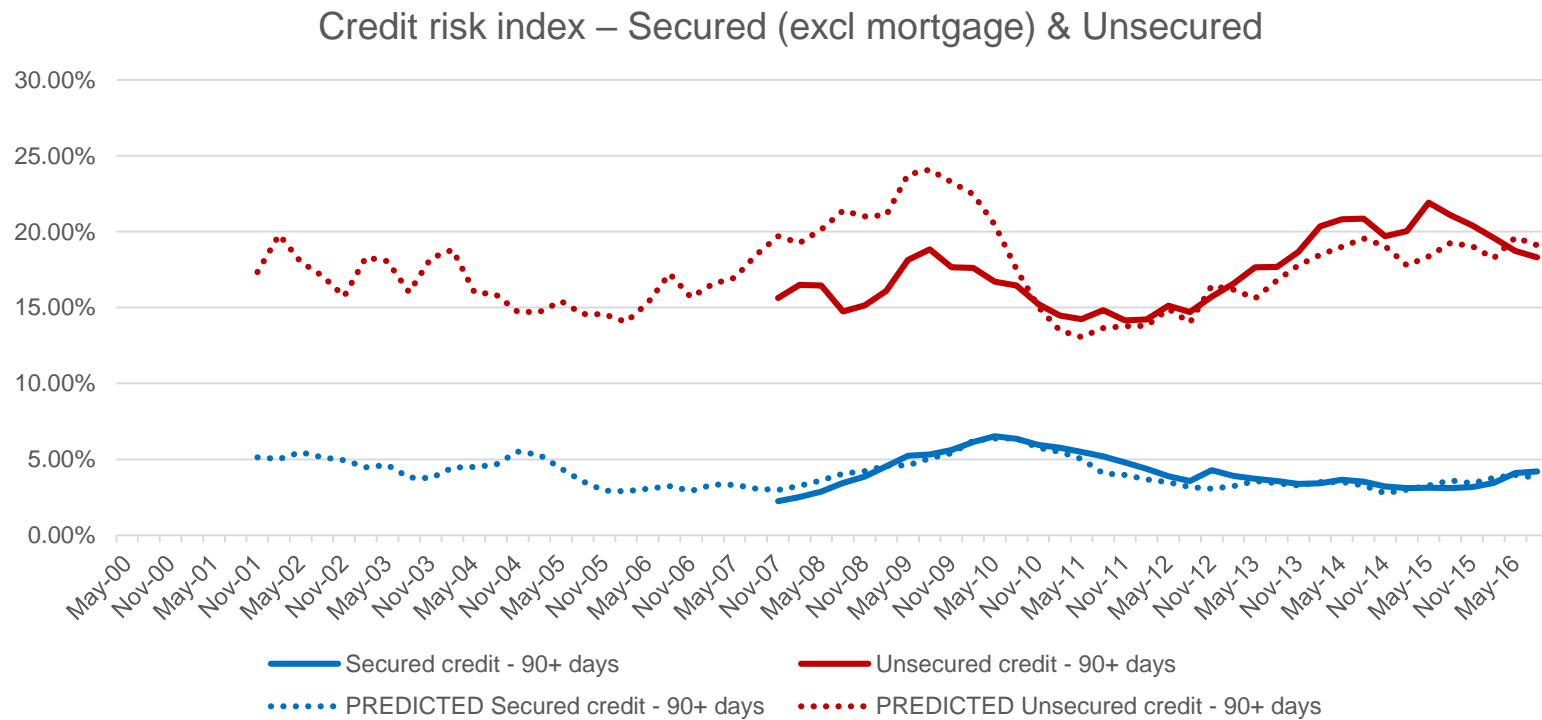
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Credit risk example

Credit risk in the market as a whole



Credit risk in the market as a whole



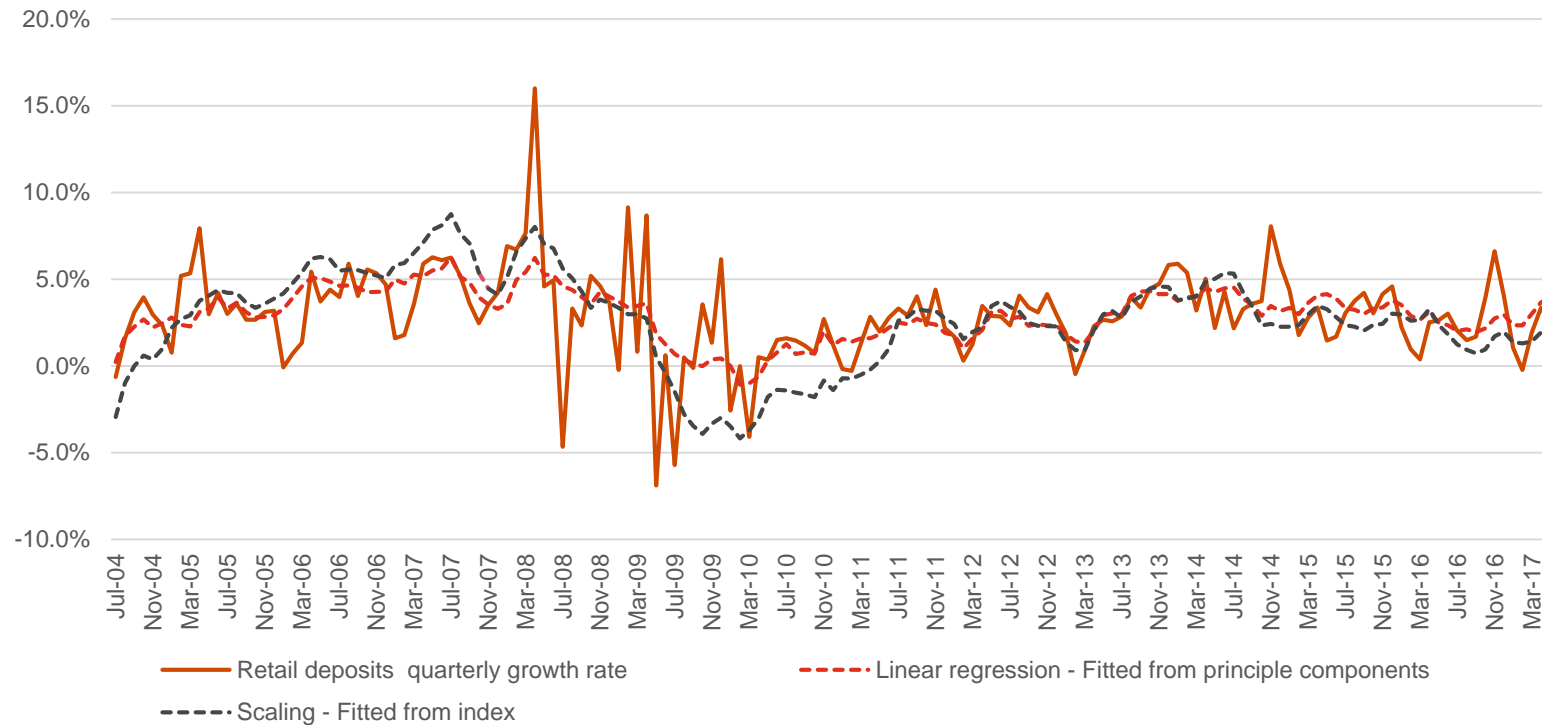
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Deposits example

Deposit volumes in the market as a whole

Total volumes

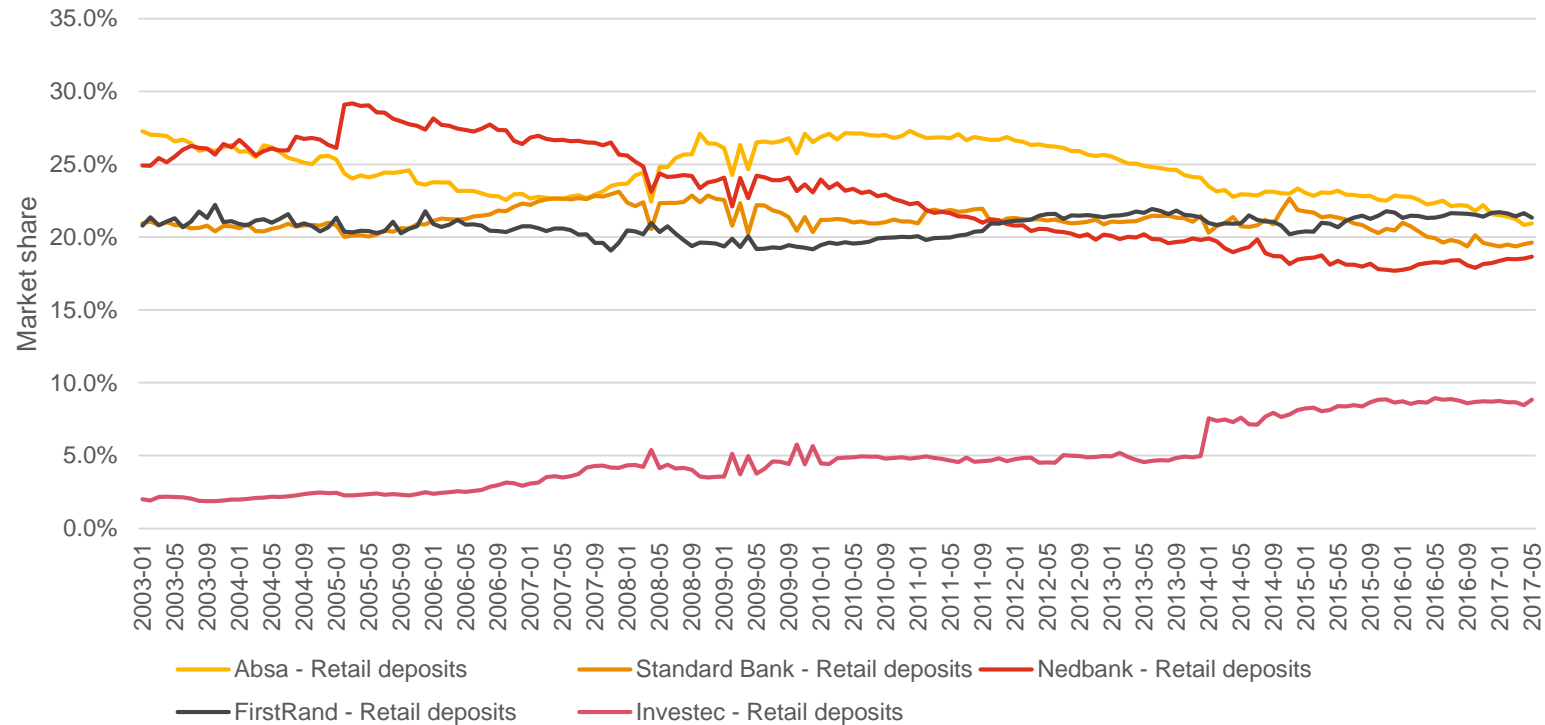
Following general trend vs predicting stress trade-off



Deposit volumes in the market as a whole

Market share

Market share also exhibits a fair amount of volatility



Thank you

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