

Basel III and the supply of bank credit in South Africa

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Abstract

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1 Introduction

The paper investigates the impact of Basel III regulation on bank lending in South Africa. This introduction is an overview of the paper

2 Context

A review of policy context, with focus on South Africa but also reference to other emerging markets. Further detail in Appendix 1 and 2a.

3 Literature

Osborne et al. (2017)

Jokipii and Milne (2008)

Gambacorta and Mistrulli (2004)

Schwert (2018)

Kim and Sohn (2017)

Carlson et al. (2013)

Tabak et al. (2011)

Altunbas et al. (2004)

Gambacorta and Shin (2018)

Berrospide and Edge (2010)

4 Developments in South African Banking

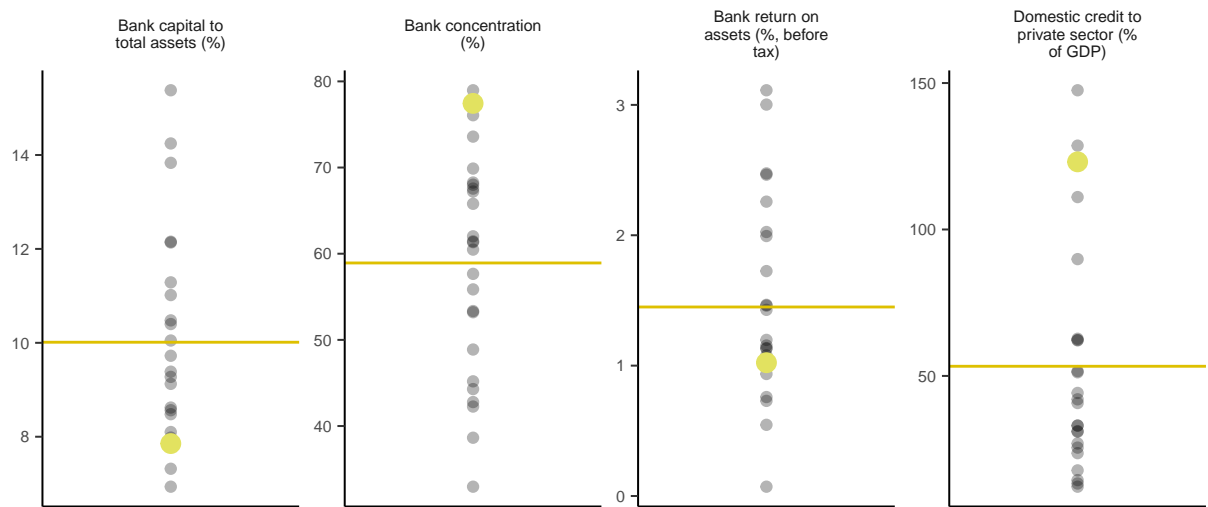
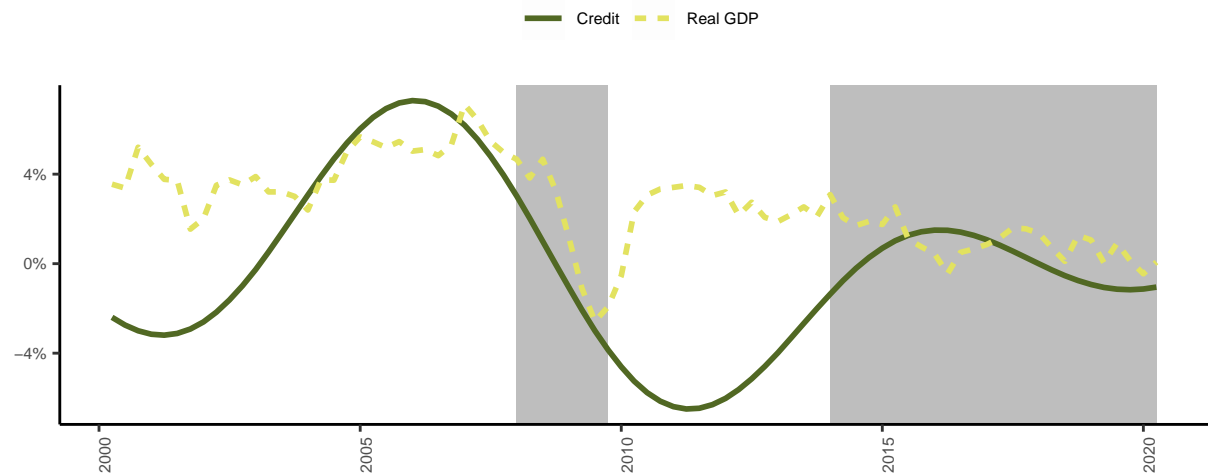


Figure 1: International Comparison. Source: World Bank (2022)



Shaded area represent downward phases of the business cycle.

Figure 2: Credit Cycle. Source: South African Reserve Bank (2022)

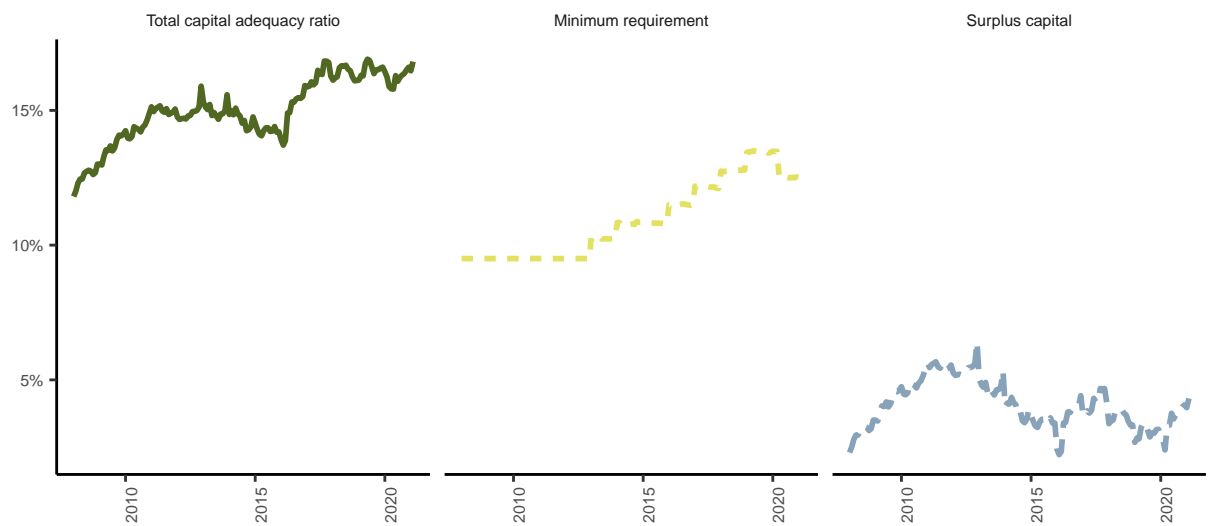


Figure 3: Capital Buffers. Source: South African Reserve Bank (2022)

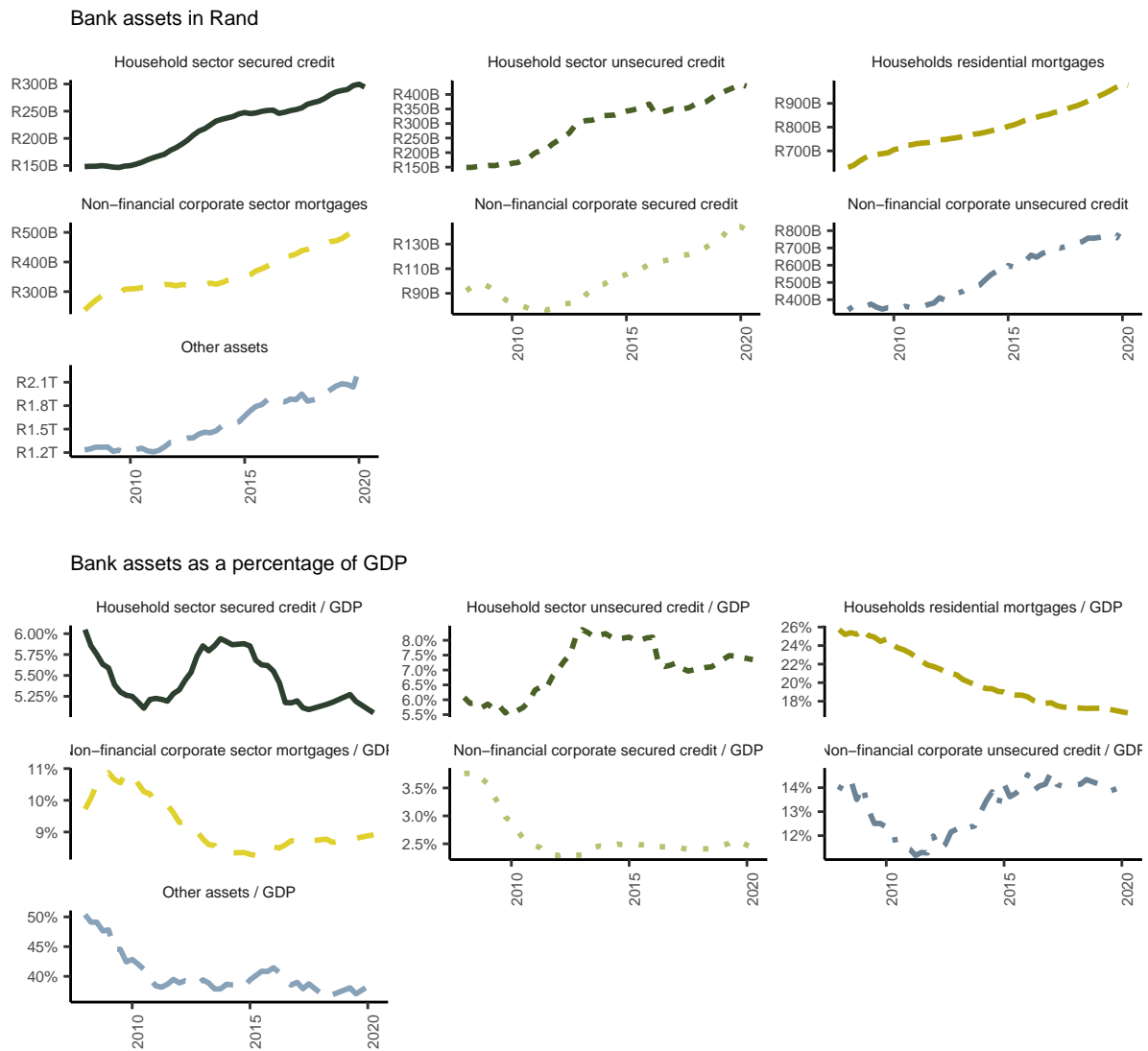


Figure 4: Bank assets. Source: South African Reserve Bank (2022)

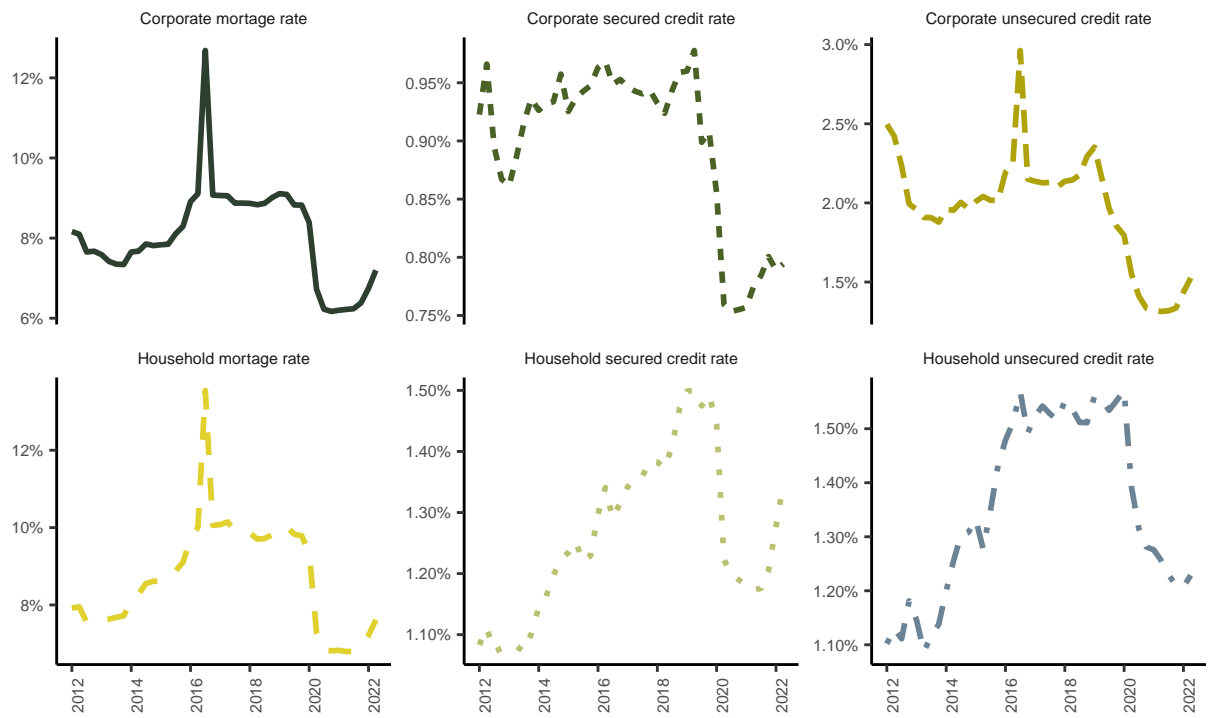


Figure 5: Lending Rates. Source: South African Reserve Bank (2022)

5 Specification

6 Estimation Results

		Median	SD	Min	Obs
Lending Rates (%)	Corporate mortgage rate	8.3	1.0	6.7	34
	Corporate secured credit rate	0.9	0.0	0.8	34
	Corporate unsecured credit rate	2.1	0.2	1.6	34
	Household mortgage rate	9.2	1.2	7.3	34
	Household secured credit rate	1.3	0.1	1.1	34
	Household unsecured credit rate	1.5	0.2	1.1	34
Regulatory Capital (%)	Minimum requirement	10.7	1.4	9.5	50
	Surplus capital	3.9	0.9	2.3	50
Total Assets (R Billions)	Household sector secured credit	236.3	51.0	146.5	50
	Household sector unsecured credit	327.7	92.1	148.9	50
	Households residential mortgages	781.3	93.9	630.1	50
	Non-financial corporate sector mortgages	334.1	73.6	238.1	50
	Non-financial corporate secured credit	98.9	20.7	76.5	50
	Non-financial corporate unsecured credit	530.5	164.7	340.4	50
	Other assets	1,550.3	327.8	1,200.6	50
Total Assets/GDP (%)	Household sector secured credit / GDP	5.4	0.3	5.1	44
	Household sector unsecured credit / GDP	7.1	0.9	5.6	44
	Households residential mortgages / GDP	20.2	2.9	16.7	44
	Non-financial corporate sector mortgages / GDP	8.8	0.9	8.3	44
	Non-financial corporate secured credit / GDP	2.5	0.4	2.3	44
	Non-financial corporate unsecured credit / GDP	13.5	1.1	11.2	44
	Other assets / GDP	39.1	3.5	36.4	44

Table 1: Descriptives

7 Conclusion

8 Appendix

8.1 Data Sources

	Description	Frequency	Availability	Source
BA900	Banking sector balance sheet data at a bank level	Monthly	Public data	SARB
BA930	Banking sector lending rates at a bank level	Monthly	Aggregated data is public.	SARB
Controls	Banking sector performance data at a bank level	Monthly	Bank specific data is private Aggregated data is public.	PA
GDP	Nominal and real gross domestic product in a calendar year	Quarterly	Bank specific data is private Public data	PA
Capital buffer	Basel III regulatory capital buffer requirement	Monthly	Aggregated data is public.	Statssa
Credit cycle	Composite index of lending conditions in South Africa	Monthly	Bank specific data is private Public data	SARB
Country comparison	International data on: domestic credit to private sector (% of GDP), bank return on assets (% , before tax), bank capital to total assets (%), and bank concentration (%)	Yearly	Public data	World Bank

Table 2: Data Description

8.2 Aggregation schema

The following tabulation is derived from the BA900s is the balance sheet return loan data (lines 103 to 277) and gives relative magnitudes by financial corporate sector, non-financial corporate sector and household sector. This is the most granular data provided. The missing item numbers are all aggregations of these numbers.

BA 900 Categories	Item Number	Sector	Aggregation Key
Installment sales	141	Financial corporate sector	-
	142	Non financial corporate sector	a
	143	Household sector	c
	144	Other	a
Leasing transactions	146	Financial corporate sector	-
	147	Non financial corporate sector	a
	148	Household sector	c
	149	Other	a
Farm Mortgages	152	Non financial corporate sector	b
	153	Household sector	b
	154	Other	b
Residential Mortgages	156	Non financial corporate sector	b
	157	Household sector	d
	158	Other	b
Commercial and Other mortgages	160	Public financial corporates	-
	161	Public non-financial corporates	-
	162	Private financial corporate	-
	163	Private non-financial corporates	b
	164	Household sector	b
	165	Other	b
Credit cards	167	Financial corporate sector	-
	168	Non financial corporate sector	a
	169	Household sector	c
	170	Other	c
Overdrafts	-7	Public sector (includes public corporations and local government)	-
	181	Financial corporate sector	-
	182	Non financial corporate sector	a
	183	Unincorporated business enterprises	e
	184	Other Household sector	c
	185	Non-profit organisations serving households	c
Factoring	187		a

Table 3: Aggregation schema

The following aggregation scheme which results in six categories was followed based on Table 3, with unincorporated enterprise credit as part of household unsecured lending.

- Non-financial corporate sector secured credit: Items 142 + 147
- Non-financial corporate sector unsecured credit: Items 168 + 182 + 187 + 190
- Non-financial corporate sector mortgages (commercial and other mortgage advances): Items 152 + 153 + 154 + 156 + 158 + 163 + 164 + 165
- Household sector secured credit: Items 143 + 148
- Household sector unsecured credit: Items 169 + 184 + 185 + 192 + 193 + 183 + 191 (note includes unincorporated business enterprise credit last two items)
- Household sector residential mortgages: Item 157

The loans quantities from the BA900s are then linked to the lending rate data from the BA930s using table to create six lending rate categories the schema on Table 4.

Sector	BA 930 Categories	Item Number	Weighting Key
Corporate sector	Overdrafts	48.0	b
	Instalment sale agreements flexible rate	49.0	a
	Instalment sale fixed rate	50.0	-
	Leasing transactions flexible rate	51.0	a
	Leasing transactions fixed rate	52.0	-
	Mortgage advances flexible rate	53.0	c
	Mortgage advances fixed rate	54.0	-
	Credit cards	55.0	b
	Other	56.0	b
Household sector	Overdrafts	58.0	e
	Instalment sale agreements flexible rate	59.0	d
	Instalment sale fixed rate	60.0	-
	Leasing transactions flexible rate	61.0	d
	Leasing transactions fixed rate	62.0	-
	Mortgage advances flexible rate	63.0	f
	Mortgage advances fixed rate	64.0	-
	Credit cards	65.0	e
	Other	66.0	e

Table 4: Weighting schema

The six categories, therefore, are as follows:

- Non-financial corporate sector secured credit rate: Weighted average of items 49 + 51
- Non-financial corporate sector unsecured credit rate: Weighted average items 48 + 55 + 56
- Non-financial corporate sector mortgage rate: Item 53
- Household sector secured credit rate: Weighted average of items 59 + 61
- Household sector unsecured credit rate: Weighted average of items 58 + 65 + 66
- Household sector residential mortgages: Item 63

9 Appendix: Descriptive Analysis

10 Appendix: Detailed Literature Review

More detailed literature review

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