

ONLINE APPENDIX TO

The bank lending channel: of monetary policy transmission in South Africa

Ekaterina Pirozhkova*
EM Normandie, Métis Lab,
South African Reserve Bank

Nicola Viegi†
University of Pretoria,
Economic Research Southern Africa

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Abstract

This online appendix contains details on the data used and additional results for the paper ‘The bank lending channel of monetary policy transmission in South Africa’.

Keywords: Monetary policy transmission, Bank lending channel, Credit channel, Nonbank financial institutions, Housing finance.

JEL Classification: E52, G21, G23.

*EM Normandie Business School, Métis Lab, 9 Rue Claude Bloch, 14000 Caen, France. Email: epirozhkova@em-normandie.fr

†Department of Economics, University of Pretoria. Email: nicola.viegi@up.ac.za

A Data

TABLE I: Dataset

Series	Data source
Manufacturing production index	SARB
CPI	SARB
3-month JIBAR (interbank) rate	SARB
Deposit rate	SARB
Investment rate on Postbank investment accounts	SARB
Deposit spread on fixed deposits with maturity exceeding 5 years	SARB
Total bank deposits	SARB
Long-term bank deposits	SARB
Bank wholesale (non deposit) funding	SARB
Volume of homeloans issued by banks	SARB
Predominant rate on new mortgage loans: banks	SARB
Volume of homeloans issued by nonbanks	National Deeds Registry of South Africa
Total mortgage issuance	SARB and National Deeds Registry of South Africa
Nonbank wholesale funding, interest-bearing securities	SARB
Aggregated house price index	Standard Bank of South Africa
House price index: freestanding houses	Standard Bank of South Africa
House price index: two-bedroom flats and townhouses	Standard Bank of South Africa
House price index: 3-bedroom flats	Standard Bank of South Africa
Johannesburg stock exchange index	SARB
Nominal bilateral U.S. dollar - rand exchange rate ¹	Bloomberg

Note. The end of month values are used for the series with daily (or higher) data frequency - 3-month JIBAR interbank rate, JSE/stock exchange index and USD ZAR exchange rate.

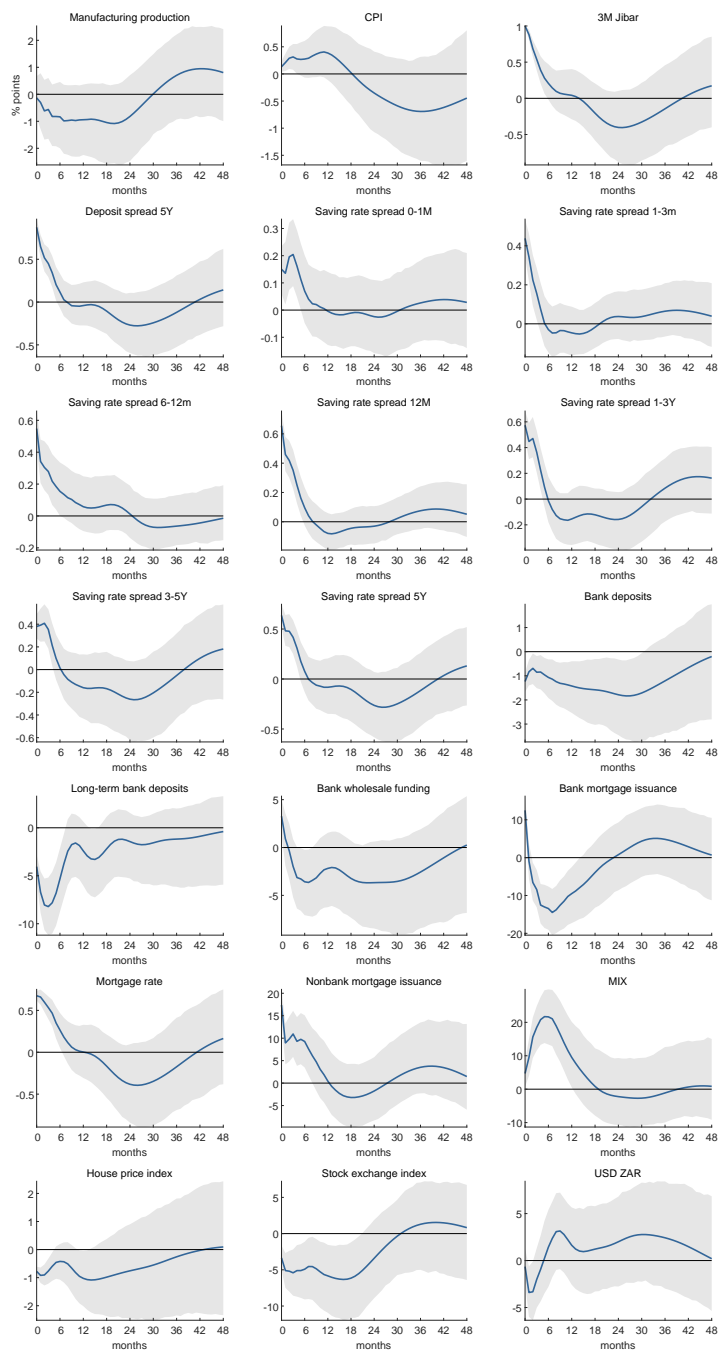
TABLE II: Estimated effects of the Standard Bank credit on the nonbank mortgage issuance

	Nonbank credit (1)	Nonbank credit (2)	Nonbank credit (3)	Nonbank credit (4)
Constant	1.10E+09	1.13E+09	1.32E+09***	1.31E+09***
Standard_Bank_credit	20.71	23.74	-6.70E+00	
Standard_Bank_credit(-1)	-3.56	5.55		-1.00E+01
Standard_Bank_credit(-2)	-15.26	-9.45		
Standard_Bank_credit(-3)	-10.58	-3.75		
Standard_Bank_credit(-4)	-19.21	-10.77		
Standard_Bank_credit(-5)	-4.11	26.34		
Standard_Bank_credit(-6)	-39.37	5.78		
Standard_Bank_credit(-7)		-12.84		
Standard_Bank_credit(-8)		10.88		
Standard_Bank_credit(-9)		-7.20		
Standard_Bank_credit(-10)		-16.98		
Standard_Bank_credit(-11)		-40.92		
Standard_Bank_credit(-12)		-53.78		
House price index			3.86E+07***	3.93E+07***
JSE stock market index			-1.62E+04**	-1.60E+04**
USD/ZAR			1.26E+09	1.12E+09
IP			7.25E+05	5.77E+05
CPI			5.75E+07	5.48E+07
3M JIBAR			-4.25E+07***	-4.12E+07***
Rsq	0.05	0.14	0.43	0.43
N Obs	133	127	139	138
F-stat	0.99	1.38	13.83	13.73
Prob(F-stat)	0.44	0.18	0.00	0.00

Notes. The table reports the OLS projection coefficients of the volume of nonbank mortgage issued on the Standard Bank credit origination and macroeconomic and financial indicators. Except for 3-month JIBAR (interbank) interest rates, the variables are HP-filter detrended. 'Standard Bank credit' variables are HP-filter detrended issuance of mortgage by Standard Bank at respective lags. 'IP' is the industrial production index. The regressions are run at monthly frequency. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The sample is 2008M1-2019M8.

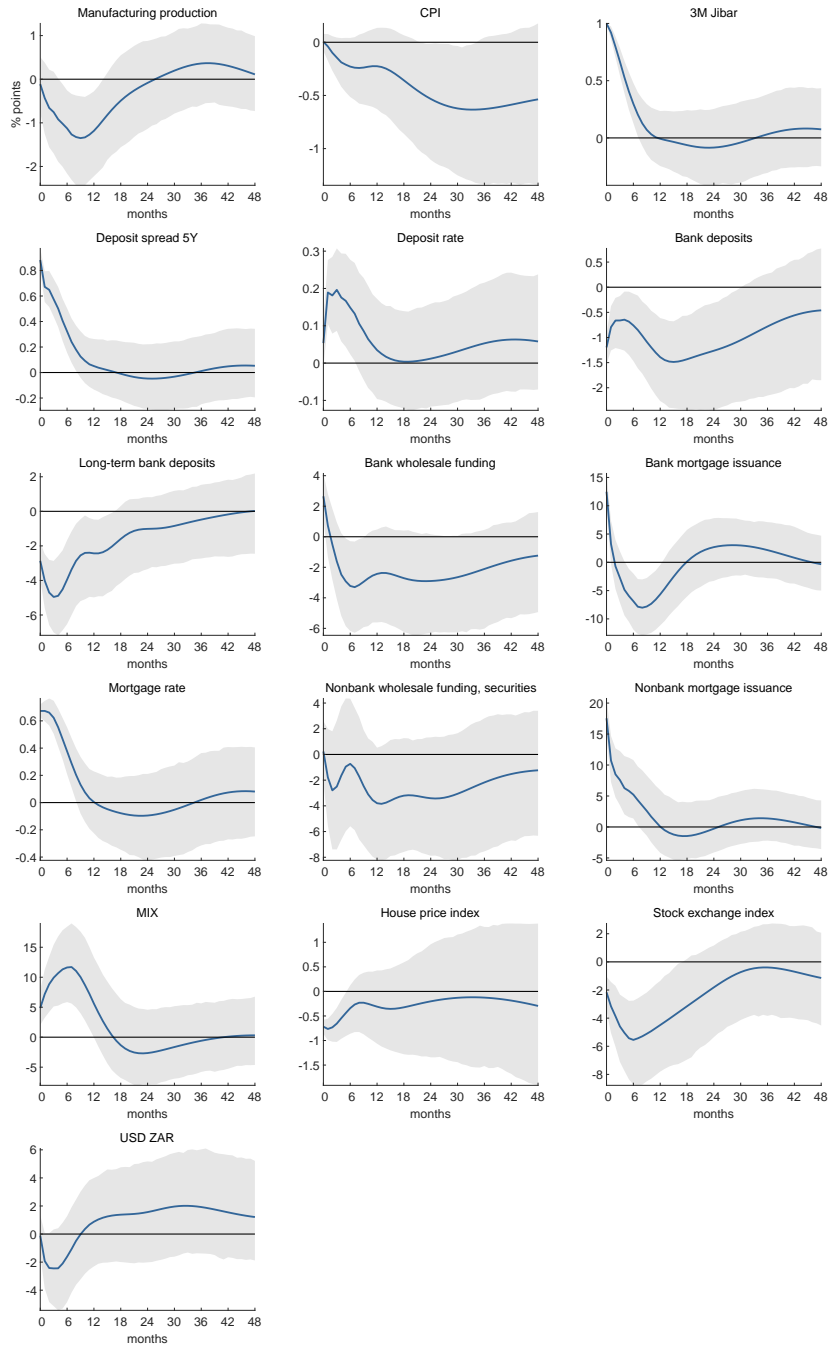
B Additional results on VAR analysis

FIGURE I: VAR impulse response functions to monetary tightening shock, alternative specification with an extended set of variables - a set of interest rate spreads with the Postbank investment rate.



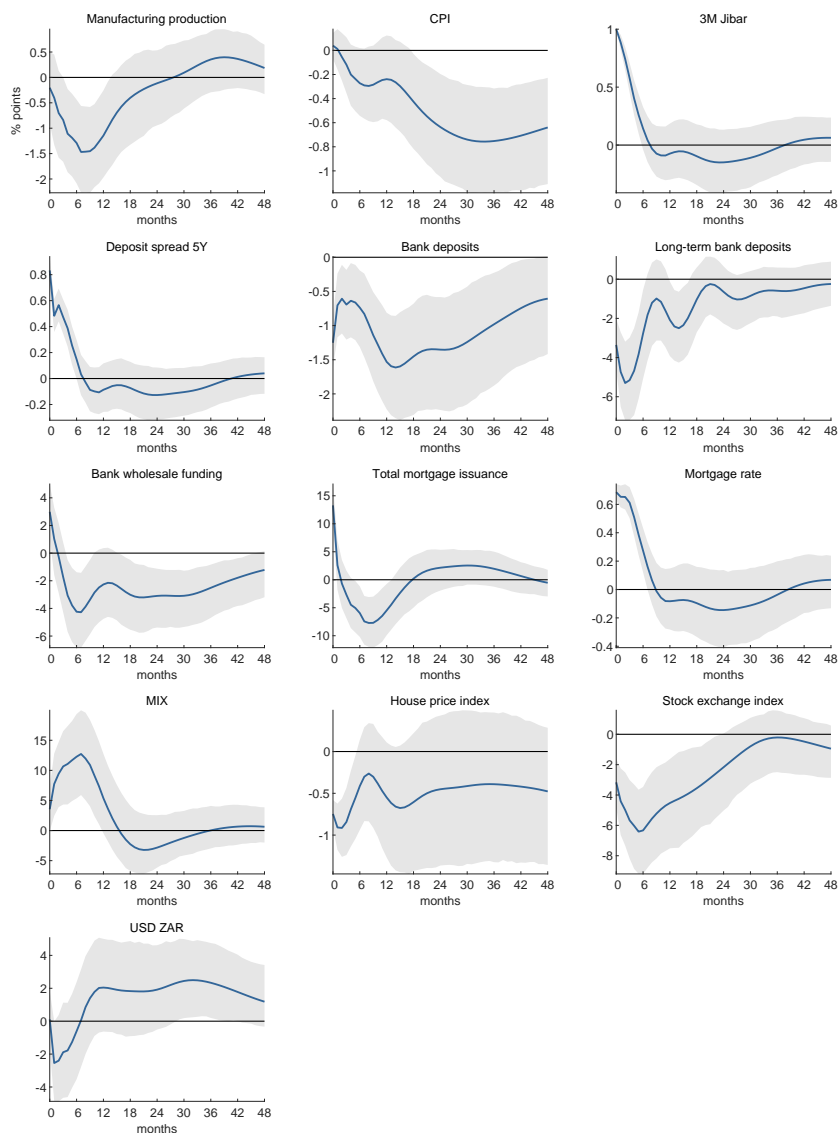
Notes. 21-variable BVAR(12). 'Saving rate spread' variables are computed as differences between the investment rate on Postbank investment accounts and the interest rate on retail saving deposits of respective maturities. Monetary policy shock is identified using a conventional monetary policy factor for South Africa from [Pirozhkova et al. \(2024\)](#), see section 'Identification of monetary policy shocks' of the main paper for details. The shock is normalized to induce a 100 basis point increase in the 3M JIBAR (interbank) rate. The sample is 2004M5-2019M8. Shaded areas are 90% posterior coverage bands.

FIGURE II: VAR impulse response functions to monetary tightening shock, alternative specification with an extended set of variables.



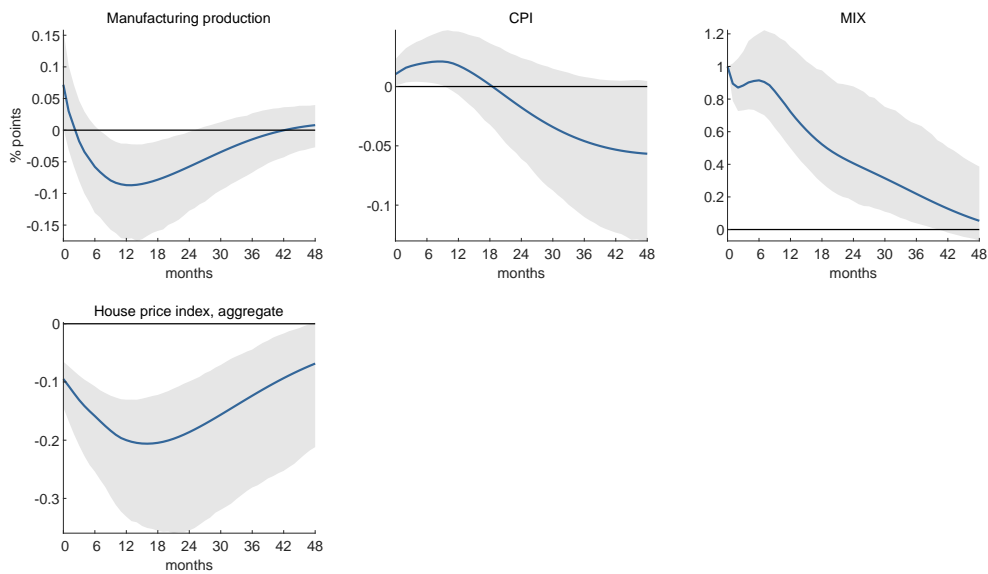
Notes. 16-variable BVAR(12). Monetary policy shock is identified using a conventional monetary policy factor for South Africa from [Pirozhkova et al. \(2024\)](#), see section ‘Identification of monetary policy shocks’ of the main paper for details. The shock is normalized to induce a 100 basis point increase in the 3M JIBAR (interbank) rate. The sample is 2004M5-2019M8. Shaded areas are 90% posterior coverage bands.

FIGURE III: VAR impulse response functions to monetary tightening shock, alternative specification with the Total mortgage issuance.



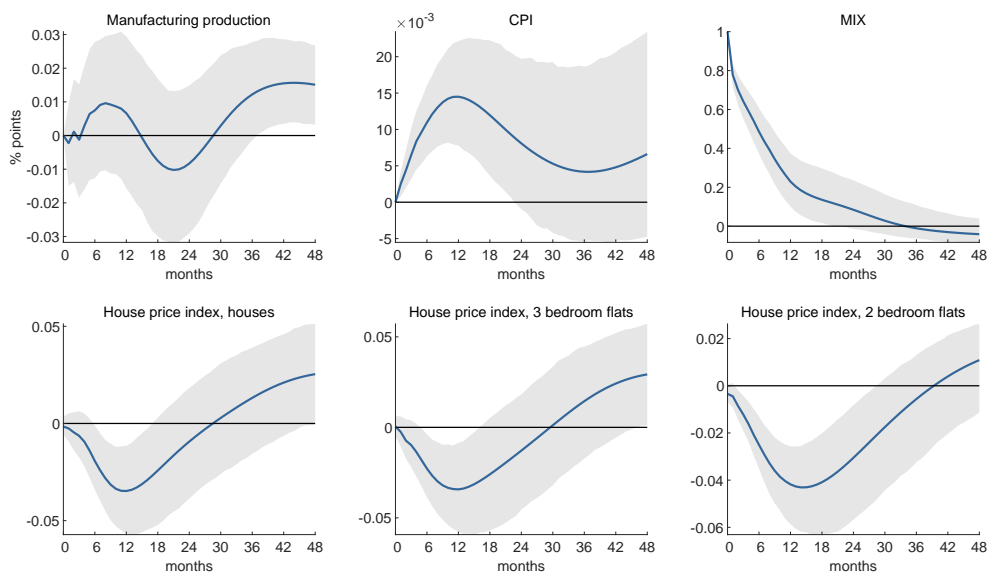
Notes. 13-variable BVAR(12). Monetary policy shock is identified using a conventional monetary policy factor for South Africa from Pirozhkova et al. (2024), see section ‘Identification of monetary policy shocks’ of the main paper for details. The shock is normalized to induce a 100 basis point increase in the 3M JIBAR (interbank) rate. The sample is 2004M5-2019M8. Shaded areas are 90% posterior coverage bands.

FIGURE IV: VAR impulse response functions to MIX shock, alternative specification with aggregate house price index.



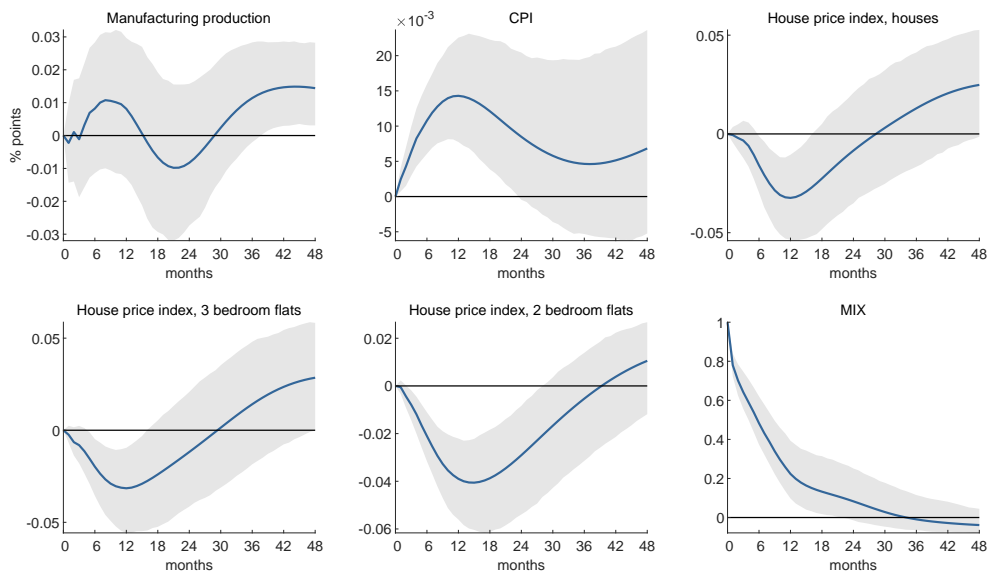
Notes. 4-variable BVAR(12). MIX shock is identified using a high-frequency instrument accounting for central bank information effects, see [Pirozhkova et al. \(2024\)](#) and section ‘Identification of monetary policy shocks’ of the main paper for details. The shock is normalized to induce a 1 percentage point increase in the MIX variable - the increase of the share of nonbanks in homeloan supply induced by monetary policy contraction. The sample is 2004M5-2019M8. Shaded areas are 90% posterior coverage bands.

FIGURE V: VAR impulse response functions to MIX shock, alternative identification of the MIX shock - recursive restrictions under assumption of fast-moving house prices.



Notes. 4-variable BVAR(12). MIX shock is identified using recursive restrictions, see section ‘Robustness checks’ of the main paper for details. The shock is normalized to induce a 1 percentage point increase in the MIX variable - the increase of the share of nonbanks in homeloan supply induced by monetary policy contraction. The sample is 2004M5-2019M8. Shaded areas are 90% posterior coverage bands.

FIGURE VI: VAR impulse response functions to MIX shock, alternative identification of the MIX shock - recursive restrictions under assumption of slow-moving house prices.



Notes. 4-variable BVAR(12). MIX shock is identified using recursive restrictions, see section ‘Robustness checks’ of the main paper for details. The shock is normalized to induce a 1 percentage point increase in the MIX variable - the increase of the share of nonbanks in homeloan supply induced by monetary policy contraction. The sample is 2004M5-2019M8. Shaded areas are 90% posterior coverage bands.

References

Pirozhkova, Ekaterina, Giovanni Ricco, and Nicola Viegi, “Trouble Every Day: Monetary Policy in an Open Emerging Economy,” CEPR Discussion Papers 19094, C.E.P.R. Discussion Papers May 2024.