

UP Paper

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Keywords:

JEL Codes:

1 Introduction

2 Literature Review

Alexakis et al. (2023)

3 Data and Methodology

Table 1: Descriptive Statistics

| Series | Median | SD | Min | Max | IQR | Obs |
|---|--------|------|--------|-------|------|-----|
| Lending growth | | | | | | |
| Change_in_log_Commercial mortgages to corporates and households | 0.32 | 0.55 | -1.16 | 2.11 | 0.75 | 155 |
| Change_in_log_Household unsecured lending | 0.41 | 1.17 | -10.31 | 5.61 | 0.84 | 155 |
| Change_in_log_Leasing and installments to corporates | 0.37 | 0.74 | -1.88 | 4.08 | 0.88 | 155 |
| Change_in_log_Leasing and installments to households | 0.47 | 0.57 | -2.75 | 1.69 | 0.78 | 155 |
| Change_in_log_Non-financial corporate unsecured lending | 0.29 | 1.58 | -6.17 | 6.29 | 1.82 | 155 |
| Change_in_log_Residential mortgages to households | 0.28 | 0.27 | -0.60 | 1.00 | 0.37 | 155 |
| Change_in_log_Total leasing and installments | 0.51 | 0.49 | -1.88 | 1.45 | 0.71 | 155 |
| Change_in_log_Total mortgage lending | 0.32 | 0.26 | -0.26 | 1.01 | 0.41 | 155 |
| Change_in_log_Total unsecured lending | 0.48 | 1.14 | -3.88 | 4.39 | 1.23 | 155 |
| Lending rates | | | | | | |
| Commercial mortgages to corporates and households rate | 8.06 | 1.05 | 6.16 | 9.99 | 1.55 | 156 |
| Household unsecured lending rate | 14.17 | 2.63 | 4.78 | 15.67 | 2.19 | 156 |
| Leasing and installements to corporate rate | 9.40 | 0.84 | 7.05 | 10.46 | 1.38 | 156 |
| Leasing and installments to households rate | 10.63 | 0.96 | 8.85 | 11.91 | 2.06 | 156 |
| Non financial corporate unsecured lending rate | 7.26 | 0.75 | 6.02 | 8.48 | 1.28 | 156 |
| Residential mortgages to household rate | 8.64 | 1.24 | 6.78 | 10.28 | 2.27 | 156 |
| Total leasing and installments rate | 10.26 | 0.91 | 8.29 | 11.44 | 1.75 | 156 |
| Total mortgages lending rate | 8.40 | 1.17 | 6.59 | 10.19 | 1.99 | 156 |
| Total unsecured lending rate | 9.58 | 1.04 | 6.30 | 10.74 | 1.46 | 156 |
| Macroprudential regulation narrative indices | | | | | | |
| Draft | 0 | 0.25 | 0 | 1 | 0 | 156 |
| Implementation | 0 | 0.27 | 0 | 1 | 0 | 156 |
| Competition regulation narrative indices | | | | | | |
| Entry_Corporate_dummy | 0 | 0.31 | 0 | 1 | 0 | 156 |
| Entry_Household_dummy | 0 | 0.30 | 0 | 1 | 0 | 156 |
| Entry_all_dummy | 0 | 0.40 | 0 | 1 | 0 | 156 |
| Entry_commercial_mortgages_dummy | 0 | 0.11 | 0 | 1 | 0 | 156 |
| Entry_credit_households_dummy | 0 | 0.22 | 0 | 1 | 0 | 156 |
| Entry_credit_non_fin_corporate_dummy | 0 | 0.19 | 0 | 1 | 0 | 156 |
| Entry_credit_non_fin_dummy | 0 | 0.29 | 0 | 1 | 0 | 156 |
| Entry_leasing_households_dummy | 0 | 0.08 | 0 | 1 | 0 | 156 |
| Entry_leasing_non_fin_corporate_dummy | 0 | 0.08 | 0 | 1 | 0 | 156 |
| Entry_mortgages_households_dummy | 0 | 0.08 | 0 | 1 | 0 | 156 |
| Exit_Corporate_dummy | 0 | 0.22 | 0 | 1 | 0 | 156 |
| Exit_Household_dummy | 0 | 0.22 | 0 | 1 | 0 | 156 |
| Exit_all_dummy | 0 | 0.32 | 0 | 1 | 0 | 156 |
| Exit_commercial_mortgages_dummy | 0 | 0.11 | 0 | 1 | 0 | 156 |
| Exit_credit_households_dummy | 0 | 0.08 | 0 | 1 | 0 | 156 |
| Exit_credit_non_fin_corporate_dummy | 0 | 0.11 | 0 | 1 | 0 | 156 |
| Exit_credit_non_fin_dummy | 0 | 0.14 | 0 | 1 | 0 | 156 |
| Exit_leasing_households_dummy | 0 | 0.14 | 0 | 1 | 0 | 156 |
| Exit_mortgages_households_dummy | 0 | 0.11 | 0 | 1 | 0 | 156 |
| competition_dummy | 0 | 0.18 | 0 | 1 | 0 | 156 |
| finance_regulation_dummy | 0 | 0.29 | 0 | 1 | 0 | 156 |
| financial_inclusion_dummy | 0 | 0.08 | 0 | 1 | 0 | 156 |
| Controls | | | | | | |
| Consumer confidence index | -8 | 10 | -33 | 26 | 10 | 154 |
| SAVIT40 | 18 | 4 | 13 | 38 | 5 | 154 |
| repo | 6 | 1 | 4 | 7 | 2 | 154 |

4 Results

4.1 Macroprudential regulation

Table 2: Macroprudential regulations and lending volumes (3-months) results

| | Total | | | Corporations | | | Households | | |
|--------------------------------------|---------|--------|----------|--------------|--------|---------|------------|--------|---------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Draft regulations estimates | | | | | | | | | |
| draft | 0.62 | 2.23** | -0.19*** | 0.41 | 0.89** | -0.41** | 1.00** | 3.11** | -0.16 |
| Implementation estimates | | | | | | | | | |
| implementation | 1.82*** | 0.51 | -0.62** | 2.33*** | 1.24* | -1.44** | 0.62 | -0.09 | -0.27** |
| Num.Obs. | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 |
| Bank Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | | | | | | | | |

Table 3: Macroprudential regulation and lending rates

| | Total | | | Corporations | | | Households | | |
|--------------------------------------|---------|----------|----------|--------------|----------|---------|------------|----------|----------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Draft regulations estimates | | | | | | | | | |
| draft | 0.38*** | -0.39*** | -0.50*** | 0.31*** | -0.45*** | -0.20 | 0.39*** | -0.36*** | -0.60*** |
| Implementation estimates | | | | | | | | | |
| implementation | 2.59*** | -0.51*** | -0.61** | 2.30** | -0.73*** | -0.77** | 3.04*** | -0.41*** | -0.58** |
| Num.Obs. | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 |
| Bank Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | | | | | | | | |

4.2 Competition regulation

Table 4: Entry and exit effect on unsecured lending

| | (1) | (2) |
|--------------------------------------|----------|----------|
| Corporation estimates | | |
| entry_credit_non_fin_dummy | 0.65** | 0.21 |
| exit_credit_non_fin_dummy | 0.88** | -1.18*** |
| covid_dummy | -0.43* | -0.11 |
| Households estimates | | |
| entry_credit_households_dummy | 1.14*** | -0.30*** |
| exit_credit_households_dummy | 1.47*** | -0.62*** |
| covid_dummy | -1.32*** | -0.54*** |
| Num.Obs. | 768 | 768 |
| Bank Fixed Effects | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | |

Table 5: Entry and exit effect on mortgages

| | (1) | (2) |
|--------------------------------------|----------|----------|
| Corporation estimates | | |
| entry_commercial_mortgages_dummy | -0.34** | -0.23** |
| exit_commercial_mortgages_dummy | -0.19 | -0.11 |
| covid_dummy | -1.47** | -0.13 |
| Households estimates | | |
| entry_mortgages_households_dummy | -0.43*** | -0.18*** |
| exit_mortgages_households_dummy | 0.06 | -0.02 |
| covid_dummy | -1.93*** | 0.22** |
| Num.Obs. | 768 | 768 |
| Bank Fixed Effects | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | |

Table 6: Entry and exit effect on leasing and installments

| | (1) | (2) |
|---------------------------------------|----------|----------|
| Corporation estimates | | |
| entry_leasing_non_fin_corporate_dummy | 0.27 | 0.00 |
| covid_dummy | -1.75*** | 0.18** |
| Households estimates | | |
| entry_leasing_households_dummy | -0.09 | -0.26*** |
| exit_leasing_households_dummy | -0.47*** | 0.62** |
| covid_dummy | -1.55*** | -0.18 |
| Num.Obs. | 768 | 768 |
| Bank Fixed Effects | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | |

Table 7: Miscellaneous competition results

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--|----------|----------|----------|---------|-------|-------|
| Financial inclusion estimates | | | | | | |
| financial_inclusion_dummy | -0.30*** | 0.21 | -0.63*** | 2.16*** | -1.94 | -0.19 |
| covid_dummy | -0.66** | -1.57*** | -1.84*** | -0.28** | -0.01 | 0.09 |
| Other competition developments estimates | | | | | | |
| competition_dummy | 1.28*** | -0.58*** | -0.76*** | 1.05*** | 0.11 | 0.09* |
| covid_dummy | -0.64** | -1.58*** | -1.87*** | -0.20 | -0.06 | 0.09 |
| Micro-regulations estimates | | | | | | |
| finance_regulation_dummy | 0.99*** | -0.18* | -0.31* | -0.36** | -0.10 | -0.02 |
| covid_dummy | -0.62** | -1.58*** | -1.87*** | -0.24* | -0.06 | 0.09 |
| Num.Obs. | 768 | 768 | 768 | 768 | 768 | 768 |
| Bank Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | | | | | |

5 Conclusion

6 References

Alexakis, C., Chantziaras, A., Economou, F., Eleftheriou, K., and Grose, C. (2023). Animal behavior in capital markets: Herding formation dynamics, trading volume, and the role of covid-19 pandemic. *The North American Journal of Economics and Finance*, 67:101946.

A Appendix

A.1 Data sources

Table A1: Data Sources

| | Description | Availability | Source |
|---------------------------------|---|-------------------------------|----------------------------|
| Macroprudential narrative index | | Public data | Own analysis |
| Competition narrative index | | Public data | Own analysis |
| BA900 | Banking sector balance sheet data at a bank level | Public data | South African Reserve Bank |
| | | Aggregated data is public. | |
| BA930 | Banking sector lending rates at a bank level | Bank specific data is private | South African Reserve Bank |
| | | Aggregated data is public. | |
| Controls | Banking sector performance data at a bank level | Bank specific data is private | Prudential Authority |

A.2 Aggregation scheme

Table A2: Aggregation schema

| BA 900 Categories | Item | Sector | Aggregation |
|--------------------------------|--------|---|-------------|
| | Number | | Key |
| Installment sales | 141 | Financial corporate sector | - |
| | 142 | Non financial corporate sector | g |
| | 143 | Household sector | h |
| | 144 | Other | - |
| Leasing transactions | 146 | Financial corporate sector | - |
| | 147 | Non financial corporate sector | g |
| | 148 | Household sector | h |
| | 149 | Other | - |
| Farm mortgages | 152 | Non financial corporate sector | d |
| | 153 | Household sector | d |
| | 154 | Other | - |
| Residential mortgages | 156 | Non financial corporate sector | e |
| | 157 | Household sector | - |
| | 158 | Other | - |
| Commercial and other mortgages | 160 | Public financial corporates | - |
| | 161 | Public non-financial corporates | - |
| | 162 | Private financial corporate | d |
| | 163 | Private non-financial corporates | d |
| | 164 | Household sector | - |
| | 165 | Other | - |
| | 166 | Other | - |
| Credit cards | 167 | Financial corporate sector | a |
| | 168 | Non financial corporate sector | b |
| | 169 | Household sector | - |
| | 170 | Other | - |
| Overdrafts | 171 | Public sector (includes public corporations and local government) | - |
| | 172 | Public non-financial corporates | - |
| | 173 | Private financial corporate | - |
| | 174 | Private non-financial corporates | a |
| | 175 | Household sector | - |
| | 176 | Other Household sector | - |
| | 177 | Non-profit organisations serving households | b |
| Factoring debtors | 187 | Non-profit organisations serving households | - |
| Other loans and advances | 189 | Financial corporate sector | - |
| | 190 | Non financial corporate sector | a |
| | 191 | Unincorporated business enterprises | - |
| | 192 | Other Household sector | b |
| | 193 | Non-profit organisations serving households | - |

The following aggregation scheme which results in nine categories was followed based on

Table A2:

- a. Non-financial corporate unsecured lending: Items $168 + 183 + 190$
- b. Household unsecured lending: Items $169 + 185 + 192$
- c. Total unsecured lending: Non-financial corporate unsecured lending + Household unsecured lending
- d. Commercial mortgages to corporates and households: Items $152 + 153 + 156 + 163 + 164$
- e. Residential mortgages to household: Item 157
- f. Total mortgage lending: Commercial mortgages to corporates and households + Residential mortgages to household
- g. Leasing and instalments to corporates: Items $142 + 147$
- h. Leasing and instalments to households: Items $143 + 148$
- i. Total leasing and instalments: Leasing and instalments to corporates + Leasing and instalments to households

A.3 Bank lending rates weighting scheme

The loans quantities from the BA900s are then linked to the lending rate data from the BA930s using table to create nine lending rate categories the schema on Table A3. The weights for each category are then calculated by dividing the total value of the loans in each category by the total value of all loans in the BA900s. The weights are then used to calculate the weighted average lending rate for each month. The weighted average lending rate is calculated by multiplying the lending rate for each category by the weight for that category and then summing the results.

Table A3: Weighting schema

| Sector | BA 930 Categories | Item Number | Weighting Key |
|------------------|--|-------------|---------------|
| Corporate sector | Overdraft rate | 48 | a and c |
| | Instalment sale agreements flexible rate | 49 | g and i |
| | Instalment sale fixed rate | 50 | - |
| | Leasing transactions flexible rate | 51 | g and i |
| | Leasing transactions fixed rate | 52 | - |
| | Mortgage advances flexible rate | 53 | d and f |
| | Mortgage advances fixed rate | 54 | - |
| | Credit card rate | 55 | a and c |
| | Other | 56 | a and c |
| Household sector | Overdraft rate | 58 | b and c |
| | Instalment sale agreements flexible rate | 59 | h and i |
| | Instalment sale fixed rate | 60 | - |
| | Leasing transactions flexible rate | 61 | h and i |
| | Leasing transactions fixed rate | 62 | - |
| | Mortgage advances flexible rate | 63 | e and f |
| | Mortgage advances fixed rate | 64 | - |
| | Credit card rate | 65 | b and c |
| | Other | 66 | b and c |

The nine categories, therefore, are as follows:

- Non-financial corporate unsecured lending: Weighted average of items 55 + 48 + 56
- Household unsecured lending: Weighted average of items 65 + 58 + 66
- Total unsecured lending: Weighted average of items 55 + 48 + 56 + 65 + 58 + 66
- Commercial mortgages to corporates and households: Weighted average of items 53
- Residential mortgages to household: Item 63
- Total mortgage lending: Weighted average of items 53 + 63

- g. Leasing and instalments to corporates: Weighted average of items 49 + 51
- h. Leasing and instalments to households: Weighted average of items 59 + 61
- i. Total leasing and instalments: Weighted average of items 49 + 51 + 59 + 61

A.4 Aggregated bank lending

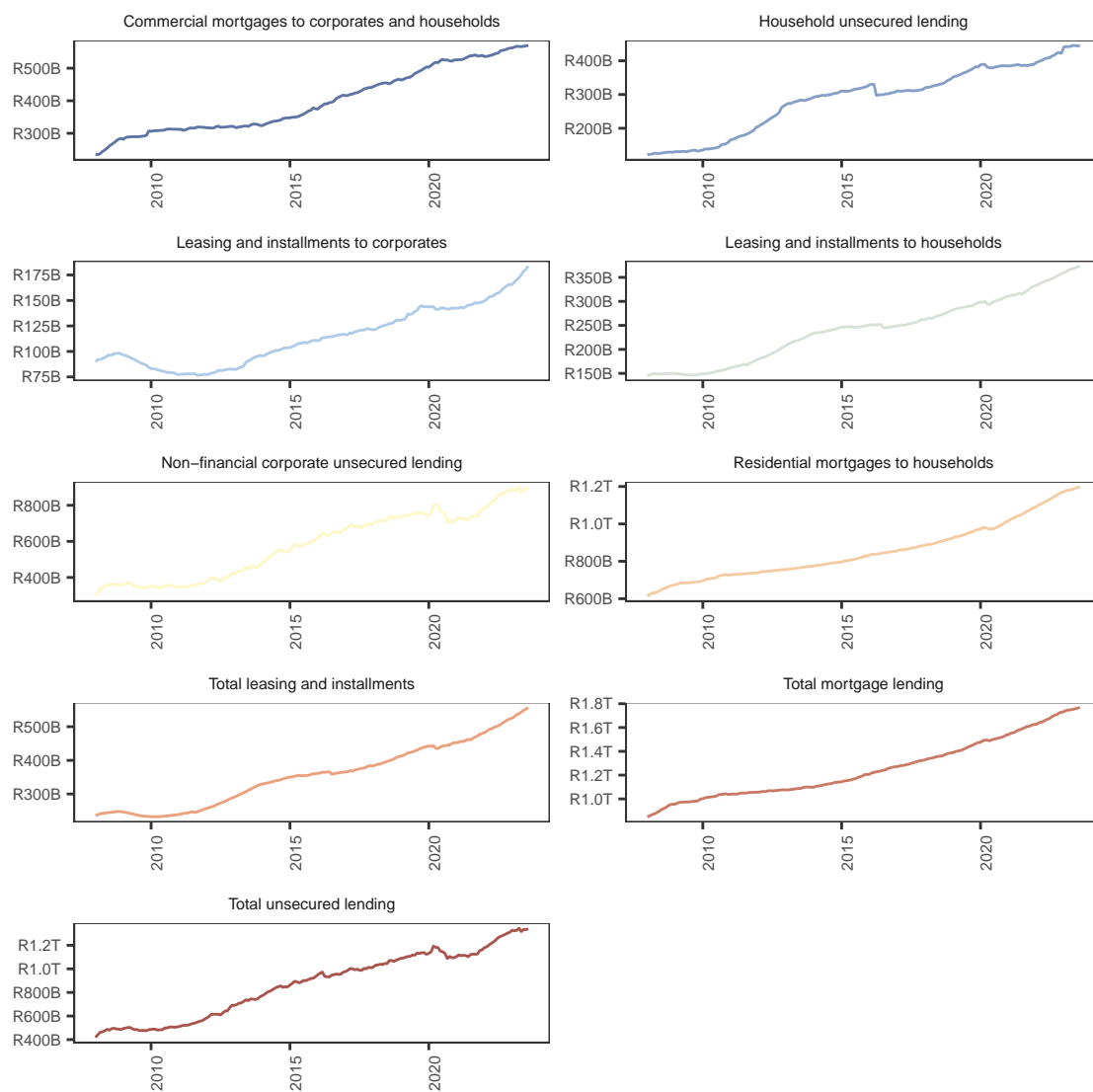


Figure A1: Total aggregated bank lending

A.5 Weighted lending rates (aggregated)

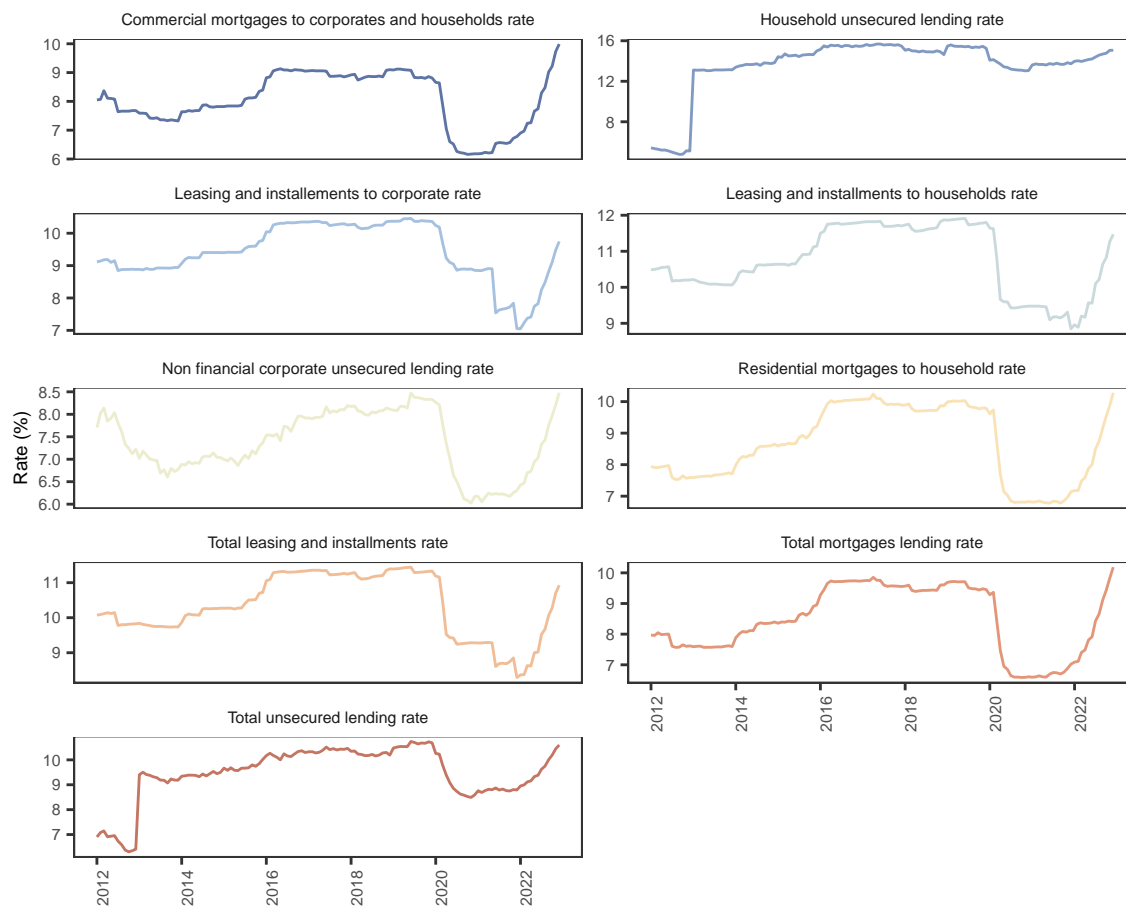


Figure A2: Weighted lending rates

A.6 Description of narrative events

Table A4: Description of the narrative indexes

| Index | Description |
|-----------------|-------------------------------------|
| Macroprudential | The macroprudential narrative index |
| Competition | The competition narrative index |

A.7 Macroprudential narrative indexes

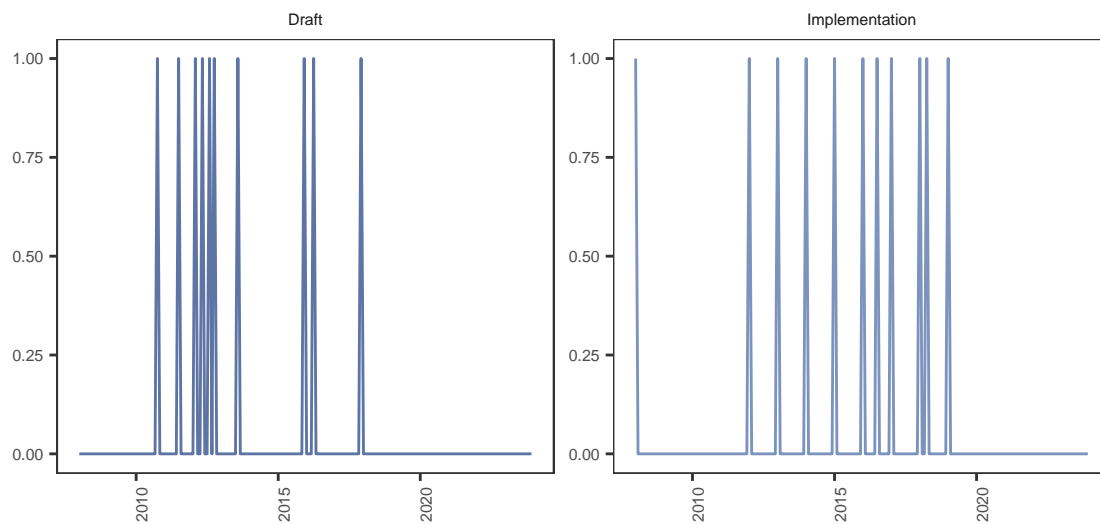


Figure A3: Macroprudential narrative indexes

A.8 Competition narrative indexes

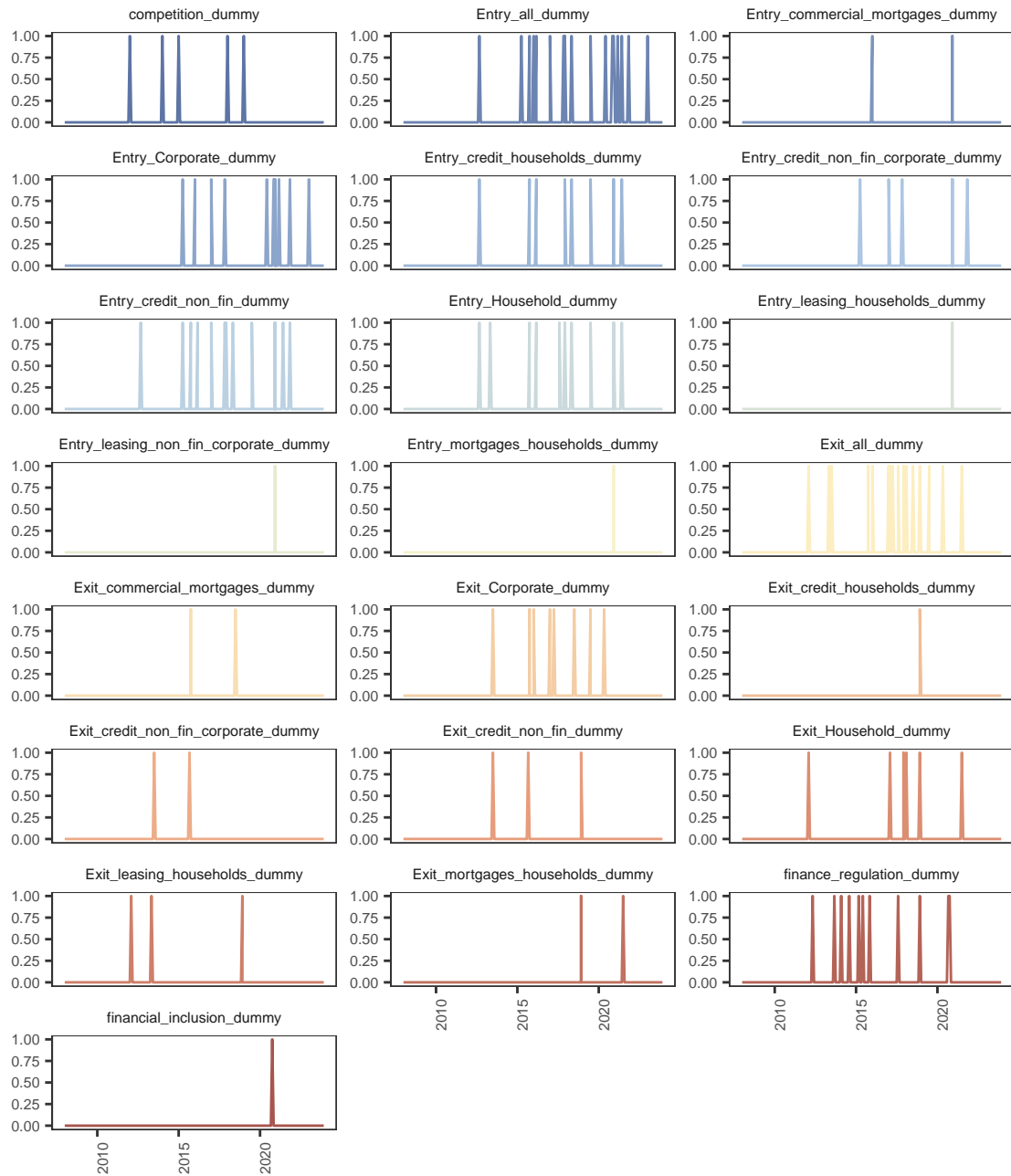


Figure A4: Competition narrative indexes

A.9 Macropudential results with controls

Table A5: Macroprudential regulations and lending volumes (3-months) with controls results

| | Total | | | Corporations | | | Households | | |
|--------------------------------------|---------|---------|---------|--------------|----------|---------|------------|---------|--------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Draft regulations estimates | | | | | | | | | |
| draft | 0.64 | 2.28** | -0.19** | 0.42 | 0.89** | -0.38 | 1.03** | 3.18** | -0.15 |
| return_on_assets | 104.98 | -413.87 | -86.66 | 149.74 | 250.40** | -210.20 | -61.27 | -786.53 | -33.17 |
| total_capital_adequacy_ratio | 23.32 | 27.84 | 3.52 | 18.53 | 14.14 | 20.13 | 35.24 | 36.15 | 0.10 |
| Implementation estimates | | | | | | | | | |
| implementation | 1.52*** | 1.19 | -0.49** | 1.98*** | 0.69 | -1.18** | 0.55 | 1.29 | -0.21* |
| return_on_assets | 87.24 | -425.50 | -80.94 | 126.16 | 243.17** | -196.31 | -66.63 | -798.14 | -30.83 |
| total_capital_adequacy_ratio | 21.36 | 25.32 | 4.14 | 16.20 | 12.92 | 21.59 | 34.09 | 33.05 | 0.40 |
| Num.Obs. | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 |
| Bank Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | | | | | | | | |

Table A6: Macroprudential regulation and lending rates with controls

| | Total | | | Corporations | | | Households | | |
|--------------------------------------|-----------|----------|----------|--------------|----------|----------|------------|-----------|----------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Draft regulations estimates | | | | | | | | | |
| draft | 0.41** | -0.38*** | -0.47*** | 0.36 | -0.44*** | -0.18 | 0.39** | -0.35*** | -0.57*** |
| return_on_assets | 584.54*** | -79.07** | -121.05 | 515.32*** | -107.26 | -112.38 | 601.51*** | -64.31** | -128.11 |
| total_capital_adequacy_ratio | 71.38** | 5.00 | 17.84 | 83.98** | 2.97 | 11.83 | 39.13** | 5.72 | 20.87* |
| Implementation estimates | | | | | | | | | |
| implementation | 1.05*** | -0.40*** | -0.49*** | 0.80 | -0.56*** | -0.64*** | 1.67*** | -0.33** | -0.47*** |
| return_on_assets | 572.34*** | -74.68** | -115.69 | 506.04*** | -101.03 | -104.79 | 581.66*** | -60.70*** | -123.16 |
| total_capital_adequacy_ratio | 70.05** | 5.63 | 18.61 | 82.93*** | 3.81 | 12.61 | 37.14* | 6.27 | 21.67* |
| Num.Obs. | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 | 580 |
| Bank Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | | | | | | | | |

A.10 Competition results with controls

Table A7: Entry and exit effect on unsecured lending with controls

| | (1) | (2) |
|--------------------------------------|---------|-----------|
| Corporation estimates | | |
| entry_credit_non_fin_dummy | -0.03 | 0.27 |
| exit_credit_non_fin_dummy | -0.13** | -1.68*** |
| covid_dummy | 0.31 | 0.09 |
| repo | 0.58** | -0.33* |
| consumer_confidence_index | 0.01*** | 0.03*** |
| return_on_assets | 62.83 | 214.51*** |
| savit40 | 0.00 | 0.09*** |
| Households estimates | | |
| entry_credit_households_dummy | 0.05 | -0.29*** |
| exit_credit_households_dummy | -0.16** | -0.34* |
| covid_dummy | -1.69* | -1.37*** |
| repo | 0.57*** | -0.27** |
| consumer_confidence_index | 0.00 | 0.01*** |
| return_on_assets | -52.93 | -59.41 |
| savit40 | -0.01 | 0.03*** |
| Num.Obs. | 604 | 604 |
| Bank Fixed Effects | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | |

Table A8: Entry and exit effect on mortgages with controls

| | (1) | (2) |
|--------------------------------------|----------|----------|
| Corporation estimates | | |
| entry_commercial_mortgages_dummy | 0.02 | -0.23*** |
| exit_commercial_mortgages_dummy | -0.10 | -0.13 |
| repo | 0.61* | 0.32** |
| consumer_confidence_index | 0.01 | 0.00 |
| return_on_assets | 159.03 | -49.45 |
| savit40 | 0.00 | 0.00 |
| covid_dummy | 0.85* | 0.35 |
| Households estimates | | |
| entry_mortgages_households_dummy | -0.04** | -0.17*** |
| exit_mortgages_households_dummy | 0.07 | -0.04 |
| repo | 1.25*** | 0.08 |
| consumer_confidence_index | 0.01*** | 0.00** |
| return_on_assets | -25.23** | 2.09 |
| savit40 | -0.02*** | -0.01*** |
| covid_dummy | 0.91*** | 0.48** |
| Num.Obs. | 604 | 604 |
| Bank Fixed Effects | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | |

Table A9: Entry and exit effect on leasing and installments with controls

| | (1) | (2) |
|---------------------------------------|---------|----------|
| Corporation estimates | | |
| entry_leasing_non_fin_corporate_dummy | 0.16 | 0.04 |
| covid_dummy | -0.75 | -0.48*** |
| repo | 0.79*** | -0.22** |
| consumer_confidence_index | 0.00 | 0.00 |
| return_on_assets | -184.38 | 27.03 |
| savit40 | 0.01 | 0.00 |
| Households estimates | | |
| entry_leasing_households_dummy | 0.04 | -0.31*** |
| exit_leasing_households_dummy | 0.03 | 0.53*** |
| covid_dummy | -0.12 | -0.40 |
| repo | 0.78*** | -0.25** |
| consumer_confidence_index | 0.00** | 0.01** |
| return_on_assets | -85.21 | 6.74 |
| savit40 | -0.01 | 0.00 |
| Num.Obs. | 604 | 604 |
| Bank Fixed Effects | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | |

Table A10: Miscellaneous competition results with controls

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--|-------|---------|----------|-----------|----------|---------|
| Financial inclusion estimates | | | | | | |
| financial_inclusion_dummy | 0.21* | 0.33*** | 0.11*** | 2.61*** | -0.34 | -0.08 |
| covid_dummy | -0.41 | -0.29 | 0.87*** | -0.15 | -0.44* | 0.34* |
| repo | 0.45* | 0.78*** | 1.08*** | -0.28* | -0.23*** | 0.11** |
| consumer_confidence_index | 0.01* | 0.00 | 0.01*** | 0.02*** | 0.01** | 0.00 |
| return_on_assets | 58.02 | -118.63 | 29.13 | 147.08*** | 10.34 | -7.19 |
| savit40 | -0.01 | 0.00 | -0.02*** | 0.04*** | 0.00 | 0.00 |
| Other competition developments estimates | | | | | | |
| competition_dummy | 0.05 | -0.04 | -0.01 | 0.57 | -0.12 | 0.19*** |
| covid_dummy | -0.42 | -0.30 | 0.87*** | -0.20 | -0.44* | 0.35* |
| repo | 0.45* | 0.78*** | 1.08*** | -0.28* | -0.23*** | 0.12** |
| consumer_confidence_index | 0.00* | 0.00 | 0.01*** | 0.02*** | 0.01** | 0.00 |
| return_on_assets | 57.07 | -120.25 | 28.61 | 135.16*** | 11.86 | -6.60 |
| savit40 | -0.01 | 0.00 | -0.02*** | 0.05*** | 0.00 | -0.01 |
| Micro-regulations estimates | | | | | | |
| finance_regulation_dummy | 0.00 | 0.03 | 0.00 | -0.58*** | -0.14 | 0.01 |
| covid_dummy | -0.42 | -0.29 | 0.87*** | -0.38 | -0.47* | 0.34* |
| repo | 0.45* | 0.78*** | 1.08*** | -0.31** | -0.23*** | 0.12** |
| consumer_confidence_index | 0.01* | 0.00 | 0.01*** | 0.02*** | 0.01** | 0.00 |
| return_on_assets | 57.00 | -120.10 | 28.60 | 132.57*** | 11.50 | -6.77 |
| savit40 | -0.01 | 0.00 | -0.02*** | 0.06*** | 0.00 | -0.01 |
| Num.Obs. | 604 | 604 | 604 | 604 | 604 | 604 |
| Bank Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Monthly Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| * p < 0.1, ** p < 0.05, *** p < 0.01 | | | | | | |