“Modelling the Impact of Macroprudential Policy” – A Policy Perspective

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Disclaimer: The views expressed in this presentation are solely those of the author and may differ from official Bank of Canada views. No responsibility for them should be attributed to the Bank of Canada.

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Brief Summary and Common Themes

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(Very) Brief Summary

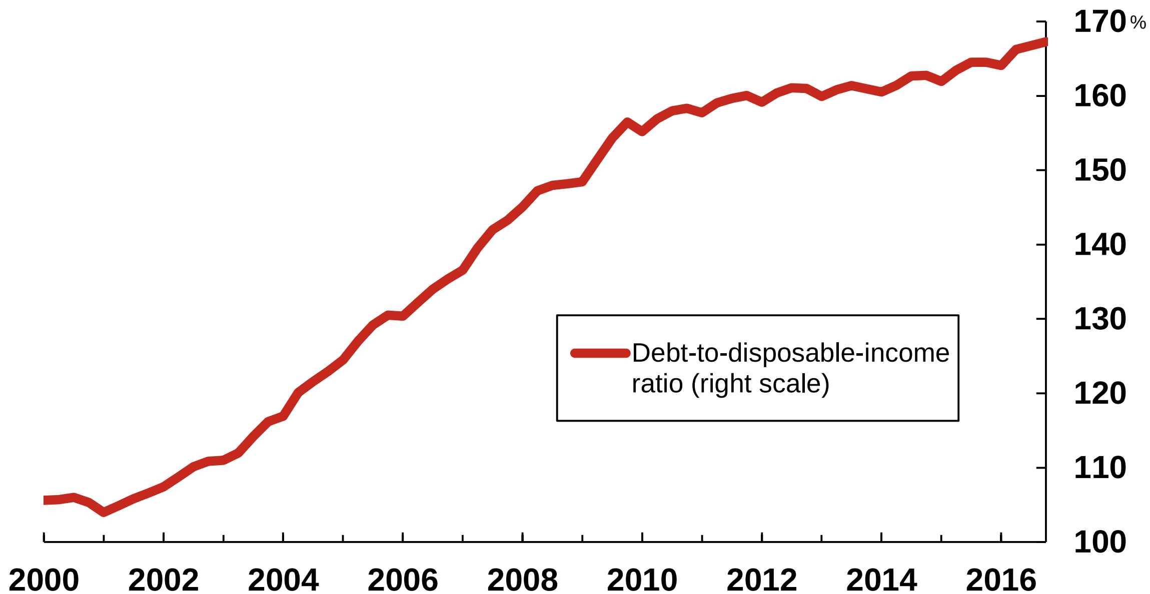
- Mendicino et al. (2017): Bank capital in the long and in the short run
  - How fast should capital requirements be raised without imposing unnecessary costs on the real economy?
- Kiley and Sim (2017): Optimal monetary and macroprudential policies: gains and pitfalls in a model of financial intermediation
  - What are the welfare implications of different policy rules for macroprudential and monetary policy?
- Ferrero et al. (2017): Concerted efforts? Monetary and macro-prudential policies
  - How should macroprudential policies be operated and how should they be coordinated with monetary policy?

Common Themes

- What all three papers have in common:
  - A financial friction/distortion that gives rise to financial vulnerabilities
  - Macroprudential policy is the preferred instrument to address these financial vulnerabilities
    - Tools: capital requirements for banks, LTV ratio, tax on bank leverage
  - Effectiveness of macroprudential policy depends on the stance of monetary policy

Evidence from Canada

Evidence from Canada: Financial Vulnerabilities



Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2016Q4

- Canada experienced a substantial credit expansion over the last 15 years
- Residential mortgages are the main driver

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Evidence from Canada: Macroprudential Policy I

Ministry of Finance

- Responsible for financial sector legislation and regulation
- The Deputy Minister of Finance chairs the SAC

Canada Mortgage and Housing Corporation (CMHC)

- Crown corporation that insures residential mortgages
- **Implements macro-prudential policy through changes in insurance policies**

Senior Advisory Council (SAC)

Non-statutory body to discuss macro-prudential policy

Central Bank

- Oversees financial market infrastructures and prominent payment systems
- Provides advice to SAC

Other Members

- Canada Deposit Insurance Corporation (CDIC)
- Financial Consumer Agency of Canada (FCAC)

The Office of the Superintendent of Financial Institutions (OSFI)

- Supervises and regulates federally registered banks, and other financial institutions
- Sets the higher loss-absorbency requirement and the countercyclical capital buffer
- Designates systemically important FIs
- Informed by the SAC

Evidence from Canada: Macroprudential Policy II

- Recent changes in macroprudential policy:
  - Changes to down-payment (DP) constraint:
    - 2006: Min. DP loosened from 5% to 0%
    - 2008: Min. DP tightened from 0% to 5%
    - 2014: Min. DP tightened from 5% to 20% on homes priced over $1 million
    - 2015: Min. DP tightened from 5% to 10% on mortgage above $500K
  - Changes to income constraint:
    - 2006 to 2007: increase in max amortization from 25 to 40 years
    - 2008 to 2012: decrease in max amortization back to 25 years
    - 2012: Gross Debt Service Ratio (GDS) cap of 39% and Total Debt Service Ratio (TDS) cap of 44%

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Evidence from Canada: Policy Interaction

- Macroprudential Policy (Ministry of Finance)
  - First line of defence

- Monetary Policy (Central Bank)
  - 2016 renewal of the inflation control target
    - The primary objective of monetary policy is to achieve the inflation target
    - However, "*[…] adjustments in monetary policy could be considered a tool for reducing financial vulnerabilities in circumstances where…*
      - *… vulnerabilities pose a significant economy-wide threat, the*
      - *… vulnerabilities are being exacerbated by a low interest rate environment and*
      - *… other tools cannot effectively mitigate these vulnerabilities in a timely manner.*"
  - Risk management approach
    - "*In formulating monetary policy, the Governing Council weighs all of the risks to the economy (including to financial stability), the probabilities that these risks will be realized and the potential consequences of a policy error.*"

Comments on Selected Issues

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Selection of Tools

- Ferrero et al. (2017) discuss the role of two different macroprudential tools
  - Background: policy makers benefit from understanding which tools are most effective in addressing the underlying financial vulnerability
- Questions:
  - Does the initial state of the economy correspond to the one in the model?
    - Type of vulnerabilities, position in the business cycle
  - Do certain macroprudential tools lead to substitution effects that are not captured in the model?
    - Other funding sources, shadow banking, foreign banks
  - What happens when macroprudential tools are combined?
    - Substitutes vs. complements

Institutional Setup

- Kiley and Sim (2017) compare the welfare implications of different policy rules
  - Background: policy makers benefit from a comparison of all *feasible* policy options

- Questions:
  - Does the institutional setup support the examined policy mix?
    - Substantial heterogeneity in financial stability mandates and macroprudential tools across central banks (Friedrich et al., 2015)
    - Fiscal policy
  - How much coordination is possible in practice and how much is wanted?
    - Number of involved institutions
    - Compatibility of mandates

Implementation Process

- Mendicino et al. (2017) provide recommendations on the implementation horizon
  - Background: policy markers benefit from understanding how a policy should be implemented

- Questions:
  - Does the structure of the domestic banking system matter?
    - Presence of foreign banks
    - Banking sector competition
  - Is there a difference for small open economies?
    - Regulatory arbitrage
    - Better capitalized banks gain market share abroad after macroprudential policy is tightened in the host country (Damar and Mordel, 2017)