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Discussion of "Monetary Policy and Macroprudential Policy: Rivals or Teammates?" by Malovaná and Frait

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Interesting and well-written paper

- Objective: contribute to debate on the need for interaction between monetary (MP) and macroprudential (MPru) policies
- Looks for evidence on the effects of disturbances to monetary conditions and aggregate bank capital ratio using time-varying VAR for CZ and 5 EA
- Finds:
  - monetary tightening decreases credit-to-GDP and increases bank leverage
  - increase in agg bank capital ratio raises (lowers) credit-to-GDP in countries with low (high) bank capital
- Other interesting findings: time effects, conventional MP vs UMP
- Provides economic interpretations corroborated by some evidence from micro bank data

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This discussion

- Focuses on the context around the MP-MPru debate
- Summarizes recent research at the Bank of Canada (BoC)
  - 2016 Renewal of the Inflation-Control Target agreement
  - For references see Background Information on BoC website!
- Offers insights on how this paper could relate to the debate
- Comments on results

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Context for 2016 IT Renewal by the BoC

- 2011 IT renewal: in some rare circumstances MP could more directly incorporate FS issues in decisions
  - Circumstances that may have dire economy-wide implications
  - MP "leaning" adjustment would imply longer targeting horizon
- Main developments since 2011
  - Household indebtedness has reached historically high levels
  - Interest rates remained low
  - Progress in micro- and macro-prudential regulatory reforms
- Question on whether monetary policy should respond to financial concerns remains relevant

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BoC IT Renewal research agenda

1. What is the probability of a financial crisis in Canada? How has it changed?

2. How effective are macroprudential tools in decreasing the probability and severity of financial crises?

3. What are the costs and benefits of monetary policy leaning?

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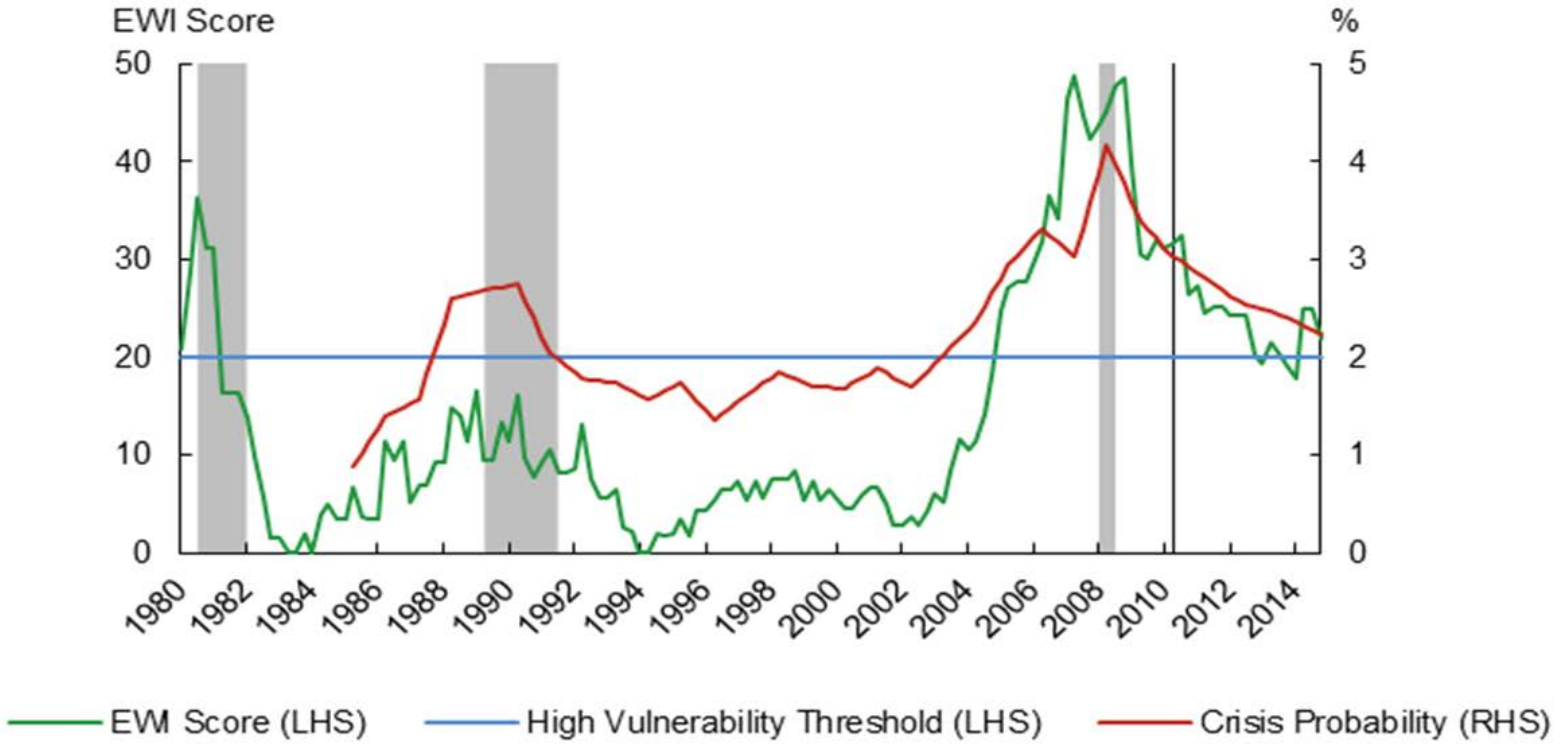
Crisis probability is elevated, but down since 2011

Chart: EWI and Crisis Probability Indicator Trends

Quarterly data



Source: Bank of Canada and C.D. Howe Institute

Last observation: 2015Q3

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Macroprudential tools effective in increasing resilience

- Basel III capital, liquidity and leverage standards
  - 15-20% capital requirement would have avoided 80% of financial crises in advanced economies since 1970 (IMF)
  - Long-Term Economic Impact Group (LTEIG): 1% increase in capital requirement reduces the probability of crisis by 20%-50%
  - TLAC (Total Loss-Absorbing Capacity) decreases the probability of crises by 1/3 and reduces GDP cost of crises by 4.6% (FSB)

- Other structural reforms also increase resilience

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… but effectiveness in curbing credit growth is mixed

- Sectoral macroprudential tools are more likely to be effective than broad-based tools
  - Sectoral tools that target the demand for credit appear to be the most effective

- Cross-country evidence on effectiveness of sectoral capital requirements is mixed

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Factors that could limit effectiveness of MPru tools

- Leakages
  - Risky activities/credit growth moving to outside of the regulatory perimeter
- Regulatory avoidance and arbitrage
  - E.g., adjusting risk-weights in response to new regulations
- Lack of coordination of policies across countries
  - Cross-border spillovers of macroprudential policies
- Lack of a clear macroprudential policy framework

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Understanding the merits of monetary policy leaning

1. Do low-for-long interest rates lead to excessive risk-taking?

2. Is monetary policy effective in reducing household indebtedness?

3. How do the benefits of leaning compare to its costs?

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Do low-for-long interest rates exacerbate risk-taking?

- Evidence for Canadian banks and pension funds suggests low rates can spur excessive risk-taking…
  - … but also evidence that its effects dissipate over time
- Risk premiums in SOEs may be largely driven by external factors
  - Low policy rates in Canada may be less of a driver of risk taking
- Elevated indebtedness may present a threat to financial stability
  - If more borrowers approach their debt capacity limits, probability and severity of a bust in the housing market may rise

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Leaning can be effective, but impact is modest

- Study implications of Bank's policy models to leaning policy action
  - Exercise à la Svensson (2015)
  - Leaning action: 25 bps higher short-term interest rate for four quarters
  - Responses in ToTEM--HCM, LENS--HCM, MP2
- Gradual decline in real household debt over medium term
  - Decline in debt level <1% in most cases
  - Looking at declines in debt-to-GDP or debt growth – same takeaway
  - Reflects bluntness of monetary policy in reducing FS vulnerabilities
- Consistent with other central bank models (IMF, 2015)

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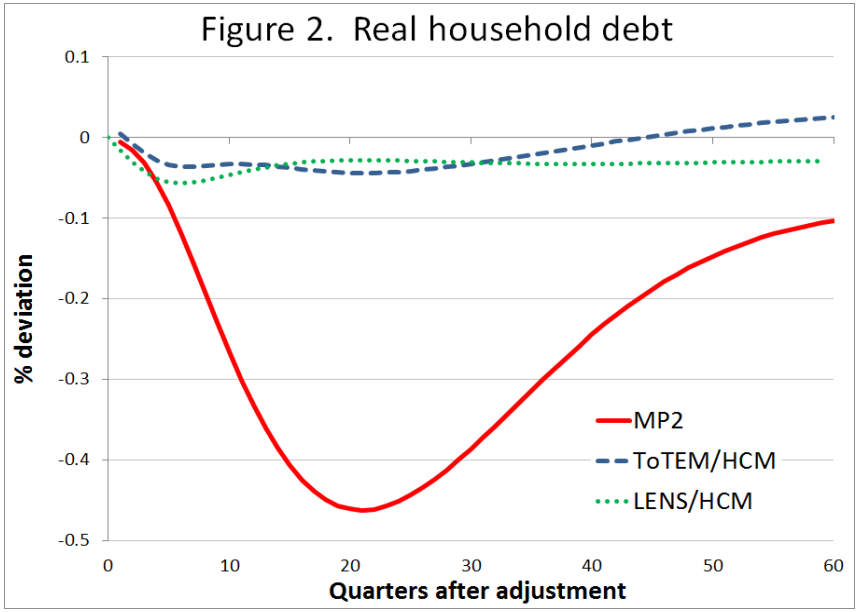
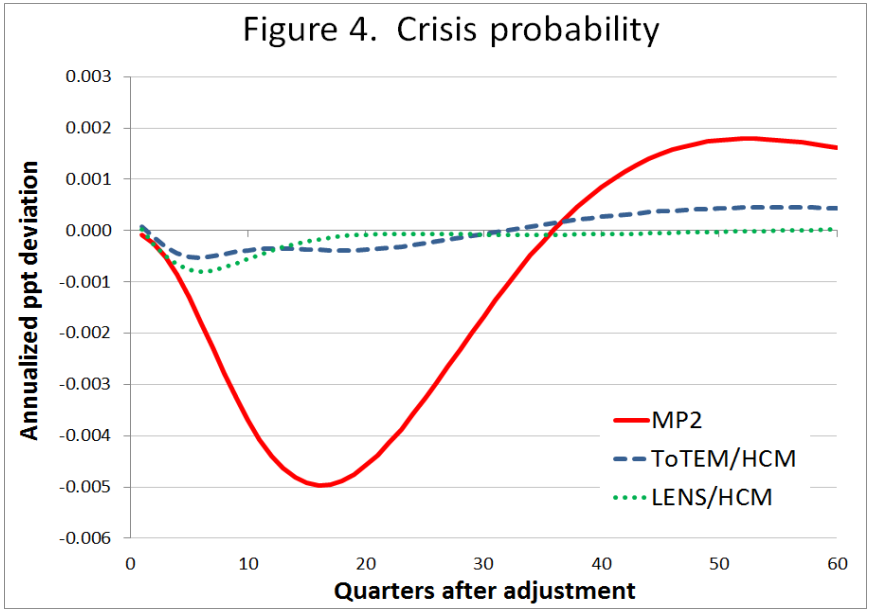
Benefits stem from reduced likelihood of fin crisis





Source: Gorea, Kryvtsov, Takamura (BoC Discussion Paper 2016-17)

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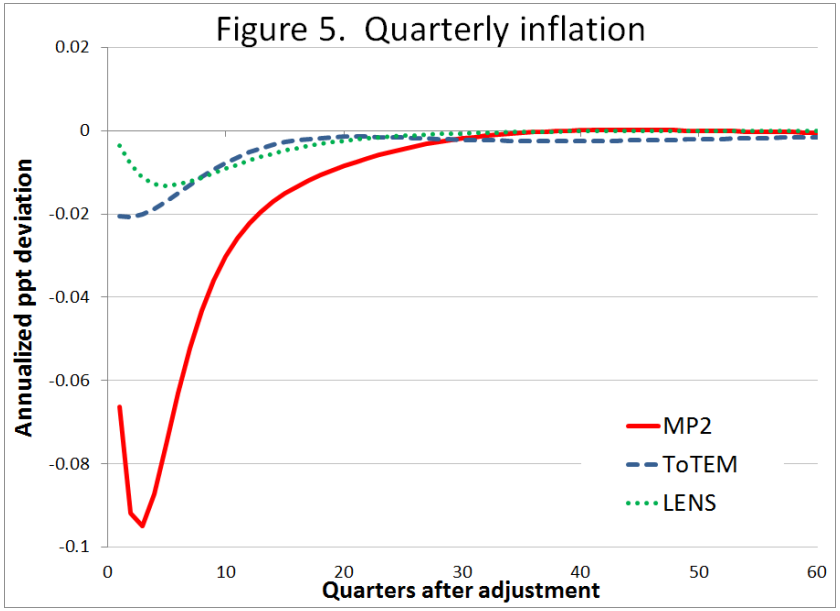
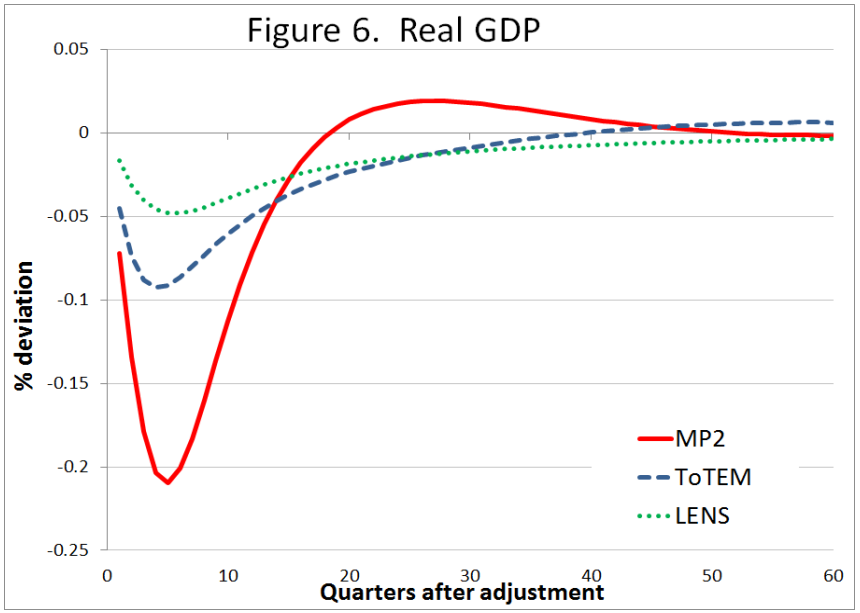
Costs from fall in inflation and output over short term





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How do the benefits of leaning compare to its costs?

- Benefits stem from reduced likelihood of financial crisis or a house price correction over the medium term
  - Relationship b/w household debt and crises estimated outside the models
  - Baseline: probability falls by a negligible amount
- Costs are due to a fall in inflation and output over the short term
- Net benefits are generally negative
  - Robust to variations of likelihood and sensitivity of crises to household debt

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Limitations of existing models

- Non-linear effects from multiple shocks, level effects
- Mechanisms that amplify financial market inefficiencies
  - Redistribution: more constrained borrowers cut spending aggressively
  - Heterogeneity: credit growth dynamics due to extensive margin
- Explicit risk-taking mechanisms
- Interactions with macroprudential policy (Boivin, Lane, Meh, 2010)
- No readily-available unified framework, but some recent studies
  - Alpanda and Ueberfeldt (2015) and others find costs are larger than benefits

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Bottom line and some implications for policy

- Evidence linking build-up of FS imbalances and financial crises
  - Elevated household indebtedness in Canada may present a threat to financial and macroeconomic stability
- Macroprudential tools can be effective
  - Pointed out factors that may limit their effectiveness and the need for clear macroprudential policy framework
- Research finds little support for MP alone to respond to FS issues
  - Monetary policy is a blunt tool: limited effect on vulnerabilities
  - Important to account for interaction between MPru and MP

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Back to Malovaná and Frait paper

1. Big leap from what paper actually does to contribution to the MP-MPru debate
   - Focus less on the debate and more one what can be learned from results

2. Effects of MP, and, especially, MPru are not identified
   - MCI are not narrowly capturing MP stance but also other macro factors?
   - No explicit MPru

3. MP-MPru interaction
   - Correlation is not interaction, see speech by Lane (February 2016)
   - Carillo et al. (2017): strategic interaction between policymaking authorities undermine significantly the effectiveness of monetary and financial policies

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4. Mechanisms/interpretations of the results are not everywhere convincing
   - Endogeneity? Is there a price puzzle in Figure B.7?
   - Identification? (Risk taking? Short-term rates and bank leverage?)

5. Can the paper relate the changes in credit and bank capital to the likelihood and severity of crises in CZ and/or EA? How did they change since the crisis?
   - Useful for gauging the effectiveness of MP and MPru

6. How effective are macroprudential tools in influencing credit and bank capital?
   - The paper does not identify those changes vis-à-vis all changes from VAR

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7. What the costs and benefits of monetary policy leaning compare?
   - Useful for gauging the desirability of MP

8. Policy framework matters for achieving price and financial stability
   - Excellent survey by Friedrich, Hess, Cunningham (2015)
   - More context on the policy framework in CZ

9. Could explore more
   - Time effects (Figure 2)
   - Conventional vs unconventional MP

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Thank you!

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Backup slides

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Assessing probability of crises or asset market busts

- Crises and busts:
  - Types: financial (e.g. banking), asset price correction (e.g. housing)
  - Severity: costly (longer and deeper than regular recessions)
  - Frequency: rare → measurement problem

- Expand data to address the measurement problem:
  - Cross country studies (caveat: account for country effects)
  - Long histories (caveat: comparability over time)

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Main drivers of risk probabilities

- Credit growth (household and business credit)
  - Schularick and Taylor (2012), Jorda, Schularick and Taylor (2015), Meh, Peterson and Wilkins (2012), Büyükkarabacak and Valev (2010), Pasricha, Roberts, Christensen and Howell (2013)

- House price overvaluation and monetary policy stance
  - Bauer (2014)

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Macroprudential policy objectives

- Macroprudential policy objectives:
  - Increase resilience of the financial sector
  - Decrease the build-up of systemic risk

- If effective, macroprudential policy could
  - Diminish the impact of systemic shocks
  - Decrease the probability and severity of financial crises
  - Reduce the need for monetary policy to lean and clean

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Macroprudential tools

- Type: structural and cyclical
  - Systemic capital surcharges, countercyclical capital buffers
- Source: leverage, funding or liquidity risk, interconnectedness, etc.
  - Limits on leverage, margin or reserve requirements, “systemically-important” designation
- Scope: sectoral and broad-based
  - Sectoral capital requirements, limits on loan-to-value or debt-to-income