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Bank of Canada Monthly Research Update

January 2018

This monthly newsletter features the latest research publications by Bank of Canada economists. The report includes papers appearing in external publications and staff working papers published on the Bank of Canada's website.

PUBLISHED PAPERS

Forthcoming

Allen, Jason & Basiri, Kiana, "The Impact of Bankruptcy Reform on Consumer Insolvency Choice", Canadian Public Policy

Bauer, Gregory & Pasricha, Gurnain & Sekkel, Rodrigo & Terajima, Yasuo, "The Global Financial Cycle, Monetary Policies and Macroprudential Regulations in Small, Open Economies", Canadian Public Policy

Baumeister, Christiane & Kilian, Lutz & Zhou, Xiaoqing, "Is the Discretionary Income Effect of Oil Price Shocks a Hoax?", Energy Journal

Bouakez, Hafedh & Oikonomou, Rigas & Priftis, Romanos, "Optimal Debt Management in a Liquidity Trap", Journal of Economic Dynamics and Control

Steingress, Walter, "The Causal Impact of Migration on US Trade: Evidence from Political Refugees", Canadian Journal of Economics

STAFF WORKING PAPERS

Anderson, Lisa & Andrews, Emad & Devani, Baiju & Mueller, Michael & Walton, Adrian, "Speed Segmentation on Exchanges: Competition for Slow Flow", Bank of Canada Staff Working Paper 2018-3

Bulusu, Narayan & Guérin, Pierre, "What Drives Interbank Loans? Evidence from Canada", Bank of Canada Staff Working Paper 2018-5

Jain, Monica & Sutherland, Christopher S., "How Do Central Bank Projections and Forward Guidance Influence Private-Sector Forecasts?", Bank of Canada Staff Working Paper 2018-2

Kilian, Lutz & Zhou, Xiaoqing, "Modeling Fluctuations in the Global Demand for Commodities", Bank of Canada Staff Working Paper 2018-4

STAFF DISCUSSION PAPERS

Bulusu, Narayan & Gungor, Sermin, "Government of Canada Securities in the Cash, Repo and Securities Lending Markets", Bank of Canada Staff Discussion Paper 2018-4

Charbonneau, Karyne B. & de Munnik, Daniel & Murphy, Laura, "Canada's Experience with Trade Policy", Bank of Canada Staff Discussion Paper 2018-1

Pérez-Saiz, Héctor & Untawala, Siddharth & Xerri, Gabriel, "A Calibrated Model of Intraday Settlement", Bank of Canada Staff Discussion Paper 2018-3

Pérez-Saiz, Héctor & Williams, Blair & Xerri, Gabriel, "Tail Risk in a Retail Payment System: An Extreme-Value Approach", Bank of Canada Staff Discussion Paper 2018-2

ABSTRACTS

The Impact of Bankruptcy Reform on Consumer Insolvency Choice

We examine the impact of the 2009 amendments to the Canadian Bankruptcy and Insolvency Act on consumer insolvency decisions. The amendments were successful in steering debtors out of Division I debt-restructuring and into the more cost-effective Division II debt-restructuring. While total insolvencies remained flat following the amendments, they led to a significant substitution out of bankruptcies and into debt- restructuring. The extent of substitution greatly depends on regional and individual circumstance. For example, generous asset exemptions under bankruptcy at the provincial level discourage debt restructuring while home ownership encourages it. Our results show, therefore, that the impact of national bankruptcy policies can have sizably different impacts at the regional level.

The Global Financial Cycle, Monetary Policies and Macroprudential Regulations in Small, Open Economies

This paper analyzes the implications of the global financial cycle for conventional and unconventional monetary policies and macroprudential policy in small, open economies such as Canada. The paper starts by summarizing recent work on global financial cycles. The cycle causes time variation in global risk premia, which affects the transmission mechanisms of both conventional and unconventional monetary policies in small, open economies. The paper then summarizes new work showing that the central banks' leaning against the effects of the global financial cycle would typically be too costly. The paper concludes with some suggestions for the formation of macroprudential policies.

Is the Discretionary Income Effect of Oil Price Shocks a Hoax?

The transmission of oil price shocks has been a question of central interest in macroeconomics since the 1970s. There has been renewed interest in this question since the large and persistent fall in the real price of oil in 2014-16. In the context of this debate, Ramey (2017) makes the striking claim that the existing literature on the transmission of oil price shocks is fundamentally confused about the question of how to quantify the effect of oil price shocks. In particular, she asserts that the discretionary income effect on private consumption, which plays a central role in contemporary accounts of the transmission of oil price shocks to the U.S. economy, makes no economic sense and has no economic foundation. Ramey suggests that the literature has too often confused the terms-of-trade effect with this discretionary income effect, and she makes the case that the effects of the oil price decline of 2014-16 on private consumption are smaller for a multitude of reasons than suggested by empirical models of the discretionary income effect. We review the main arguments in Ramey (2017) and show that none of her claims hold up to scrutiny. Our analysis highlights the theoretical basis of the discretionary income effect. We also discuss improved regression-based estimates of this effect that allow for changes in the dependence on oil and gasoline imports, and we highlight the fact that alternative estimates used by policymakers involve strong simplifying assumptions.

Optimal Debt Management in a Liquidity Trap

We study optimal debt management in the face of shocks that can drive the economy into a liquidity trap and call for an increase in public spending in order to mitigate the resulting recession. Our approach follows the literature of macroeconomic models of debt management, which we extend to the case where the zero lower bound on the short-term interest rate may bind. We wish to identify the conditions under which removing long-maturity government debt from the secondary market can be an optimal policy outcome. We show that the optimal debt-management strategy is to issue short-term debt if the government faces a sizable exogenous increase in public spending and if its initial liability is not very large. In this case, our results run against the standard prescription of the debt-management literature. In contrast, if the initial debt level is high, then issuing long term government bonds is optimal. Finally, we find a role for revisions in the debt management strategy during LT episodes, whereby the government actively manages the maturity structure, in some cases removing long bonds from the secondary market.

The Causal Impact of Migration on US Trade: Evidence from Political Refugees

Immigrants can increase international trade by shifting preferences towards the goods of their country of origin and by reducing bilateral transaction costs. Using geographical variation across U.S. states for the period 2008 to 2013, I estimate the respective causal impact of immigrants on U.S. exports and imports. I address endogeneity and reverse causality by exploiting the exogenous allocation of political refugees within the U.S. refugee resettlement program that prevents immigrants from choosing the destination location. I find that a 10 percent increase in recent immigrants to a U.S. state raises imports from those immigrants' country of origin by 1.2 percent and exports by 0.8 percent.

Speed Segmentation on Exchanges: Competition for Slow Flow

In 2015, TSX Alpha, a Canadian stock exchange, implemented a speed bump for marketable orders and an inverted fee structure as part of a redesign. We find no evidence that this redesign impacted market-wide measures of trading costs or contributed appreciably to segmenting retail order flow away from other Canadian venues with a maker-taker fee structure. This suggests that Alpha attracts already-segmented flow from venues with fee structures other than maker-taker. Some heavy users of Alpha trade off improvements in fill rates and execution size against mildly larger effective spreads and price impacts. These heavy users also utilize larger market orders and fewer spray orders.

What Drives Interbank Loans? Evidence from Canada

We identify the drivers of unsecured and collateralized loan volumes, rates and haircuts in Canada using the Bayesian model averaging approach to deal with model uncertainty. Our results suggest that the key friction driving behaviour in this market is the collateral reallocation cost faced by borrowers. Borrowers therefore adjust unsecured lending in response to changes in short-term cash needs, and use repos to finance persistent liquidity demand. We also find that lenders set rates and haircuts taking into account counterparty credit risk and collateral market price volatility.

How Do Central Bank Projections and Forward Guidance Influence Private-Sector Forecasts?

We construct a 23-country panel data set to consider the effect of central bank projections and forward guidance on private-sector forecast disagreement. We find that central bank projections and forward guidance matter mainly for private-sector forecast disagreement surrounding upcoming policy rate decisions and matter less for private-sector macroeconomic forecasts. Further, neither central banks' provision of policy rate path projections nor their choice of policy rate assumption used in their macroeconomic projections appear to matter much for private-sector forecast disagreement.

Modeling Fluctuations in the Global Demand for Commodities

It is widely understood that the real price of globally traded commodities is determined by the forces of demand and supply. One of the main determinants of the real price of commodities is shifts in the demand for commodities associated with unexpected fluctuations in global real economic activity. There have been numerous proposals for quantifying global real economic activity. We discuss which criteria a measure of global real activity must satisfy to be useful for modeling industrial commodity prices, we examine which of the many alternative measures in the literature are most suitable for applied work, and we explain why some popular measures are inappropriate for modeling commodity prices. Given these insights, we re-examine in detail whether global real economic activity has declined since 2011 and by how much. Drawing on a range of new evidence, we show that the global commodity price boom of the 2000s appears to have been largely transitory. Our analysis has important implications for the design of structural models of commodity markets, for the analysis of the transmission of commodity price shocks to commodity-importing and -exporting economies, and for commodity price forecasting.

Government of Canada Securities in the Cash, Repo and Securities Lending Markets

This paper documents the properties of Government of Canada securities in cash, repo and securities lending transactions over their life cycle. By tracking every security from issuance to maturity, we are able to highlight inter-linkages between the markets for cash and for specific securities. Our results indicate that the interaction of search frictions with clientele effects may be key to producing the patterns of trade exhibited by bonds of different maturities.

Canada's Experience with Trade Policy

This paper compiles the contemporary view on three major Canadian-led trade policies that have marked Canada's economic history since Confederation: the National Policy (1879), the Canada–US Agreement on Automotive Products (Auto Pact, 1965) and the Canada–US Free Trade Agreement (FTA, 1989, including its extension to the North American Free Trade Agreement, NAFTA, 1994). The National Policy imposed broad-based tariff increases on imported manufactured goods with the primary intention to promote the development of the Canadian manufacturing sector. However, its effects on the manufacturing sector and on welfare overall were likely negative. The Auto Pact (which helped to liberalize trade in automobiles and auto parts between Canada and the United States) and the Canada–US FTA and NAFTA reversed the protectionism established under the National Policy generations earlier. These agreements generated more trade flows among Canada, the United States and Mexico and had positive benefits for Canadian consumers and producers. Because of production specialization and lower import prices, all participating countries benefited from trade liberalization. These benefits tend to be widely dispersed and fully realized over the longer term. In contrast, trade liberalization can also create significant short-run adjustment costs, negatively affecting certain industries and workers.

A Calibrated Model of Intraday Settlement

This paper estimates potential exposures, netting benefits and settlement gains by merging retail and wholesale payments into batches and conducting multiple intraday settlements in this hypothetical model of a single "calibrated payments system." The results demonstrate that credit risk exposures faced by participants in the system are largely dependent on their relative activity in the retail and wholesale payments systems. Participants experience lower exposures in the calibrated system owing to increased netting and significant gains through higher payment values and volumes. This result is reinforced when analyzing participant exposures in periods of stress, particularly during the Great Recession. Relative activity is also indicative of the variations in exposures across participants when implementing multiple batch sizes, especially because increasing batch sizes enhances the value and volume of payments accumulated, thus leading to higher netting and lower exposures. These results and further work may contribute to a better understanding of participant exposures and trade-offs arising from this potential system design.

Tail Risk in a Retail Payment System: An Extreme-Value Approach

The increasing importance of risk management in payment systems has led to the development of an array of sophisticated tools designed to mitigate tail risk in these systems. In this paper, we use extreme value theory methods to quantify the level of tail risk in the Canadian retail payment system (ACSS) for the period from 2002 to 2015. Our analysis shows that tail risk has been increasing over the years, but the pace of growth has been reduced towards the end of our data sample, which suggests a slower rate of growth of collateral required to cover that risk.

UPCOMING EVENTS

Todd Walker (Indiana University Bloomington), 23 March 2018
Organizer: José Dorich (CEA)

Jesper Linde (Sveriges Riksbank), 28 March 2018
Organizer: Thomas Carter (CEA)

Giorgio Primiceri (Northwestern University), 20 April 2018
Organizer: Joel Wagner (CEA)

Regis Barnichon (Federal Reserve Bank of San Francisco), 18 May 2018
Organizer: Julien Champagne (CEA)

Fernanda Nechio (Federal Reserve Bank of San Francisco), 25 May 2018
Organizer: Anthony Landry (CEA)

Martin Ellison (University of Oxford), 15 June 2018
Organizer: Daniela Hauser (CEA), INT