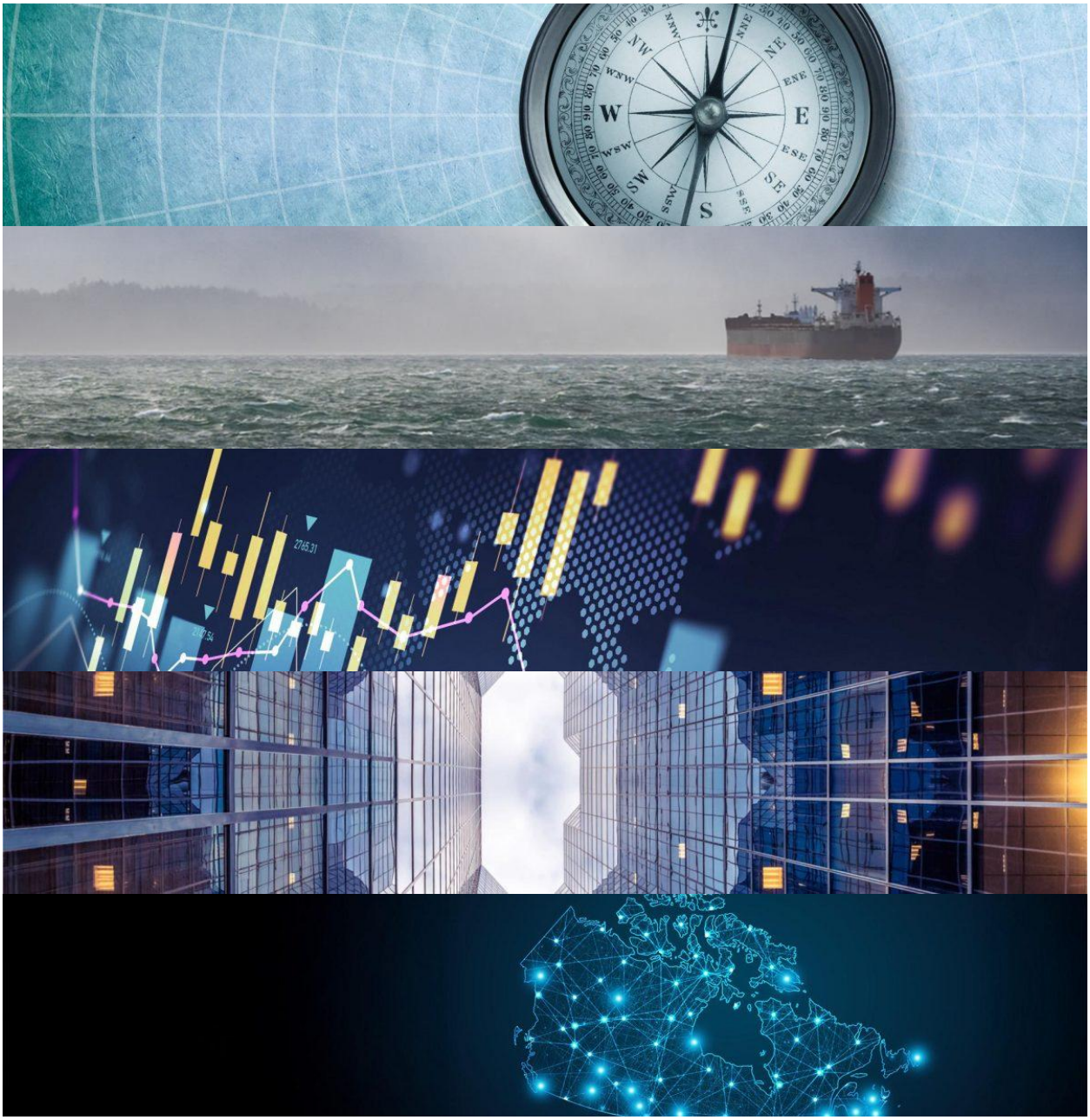
BANK OF CANADA
BANQUE DU CANADA

Quarterly Research Newsletter

Third quarter of 2026



Note: In this newsletter, names in **bold** identify researchers from the Bank of Canada as of the publication date.



In-press academic publications

Household food inflation in Canada

By **Olena Kostyshyna** and Maude Ouellet
Canadian Journal of Economics, Vol. 59(2), May 2026, pp. 556-604

This paper studies differences in the food inflation experienced by Canadian households. During the post-pandemic inflation surge, these differences widened and lower-income households faced higher food inflation, while more frequent shopping, shopping across stores, buying sale items and substituting toward lower-priced products helped households reduce their exposure.

Partial Identification of Structural Vector Autoregressions with Non-Centred Stochastic Volatility

By Helmut Lütkepohl, Fei Shang, **Luis Uzeda** and Tomasz Woźniak
Journal of Econometrics, Vol. 256, July 2026

This paper develops a Bayesian approach for assessing the identification of structural shocks in VARs using a non-centred stochastic-volatility specification. Simulations show that the approach estimates structural parameters more precisely, and an application to fiscal VARs identifies tax shocks consistent with estimates in the existing literature.

Time Use and Macroeconomic Uncertainty

By **Matteo Cacciatore**, **Stefano Gnocchi** and **Daniela Hauser**
Review of Economics and Statistics, Vol. 108(5), September 2026

This paper finds that greater economic uncertainty leads households to spend more time on housework and less time in market work, with relatively small effects on leisure. This reallocation provides households with a form of self-insurance but reduces aggregate demand, amplifying the contractionary effects of uncertainty and, in some circumstances, contributing to higher inflation.

Forthcoming academic publications

History-dependent monetary policy – less is more

By **Olena Kostyshyna**, Luba Petersen and Jing Yang
European Economic Review, Vol. 190, November 2026

This paper uses laboratory experiments to assess history-dependent monetary policy when expectations are not fully forward-looking. Weak expectations channels can produce inflation overshooting under average-inflation targeting and deflationary spirals under level-targeting regimes, while communicating medium-term macroeconomic projections can improve the performance of price-level targeting.

Staff working papers

Monte Carlo Likelihood-Ratio Tests for Markov Switching Models

By **Gabriel Rodriguez Rondon** and Jean-Marie Dufour
Bank of Canada Staff Working Paper 2026-23

This paper develops Monte Carlo likelihood-ratio tests for determining the number of regimes in Markov-switching models. The tests are robust to identification problems and can accommodate multiple regimes, non-stationary processes and multivariate models, with simulations showing accurate size control and strong power.

Seeing the Economy through Colored Glasses: Partisanship in Macro and (not in) Micro Expectations

By Adrian Monninger, Kyung Woong Koh and **Tao Wang**
Bank of Canada Staff Working Paper 2026-24

This paper finds that U.S. households' views of the macroeconomy shift substantially with political affiliation around presidential elections, while expectations about personal finances and employment are much less affected. Differences in personal economic circumstances remain the dominant source of disagreement, helping explain why changes in sentiment translate into relatively little change in spending.

Monetary Policy in an AI-Driven Two-Speed Economy

By **Joshua Brault**, **Maryam Haghighi** and Jing Yang
Bank of Canada Staff Working Paper 2026-27

This paper examines monetary policy when AI adoption affects some sectors more than others, distinguishing technologies that augment workers from those that automate their tasks. Both can lower labour demand and create a trade-off between employment stabilization and inflation, with automation generating the larger trade-off for comparable output gains.

Balancing Act: Monetary Policy Responses to Natural Disasters

By **Tatjana Dahlhaus**, **Alexander Ueberfeldt** and Malik Shukayev
Bank of Canada Staff Working Paper 2026-28

This paper uses a model calibrated to Canada to study how natural disasters affect a resource-rich small open economy. Most disasters operate as adverse supply shocks that reduce output and raise inflation, creating a monetary policy trade-off whose severity depends on the type of disaster, sectoral exposure and international spillovers.

Time Use and Consumption Expenditures

By **Daniela Hauser**, **Stefano Gnocchi** and **Laure Simon**
Bank of Canada Staff Working Paper 2026-29

This paper shows that spending falls more during recessions for consumption activities to which households can devote more of their available time, consistent with households substituting time for expenditures. A two-sector New Keynesian model suggests this mechanism accounts for roughly 40% of the initial expenditure response to monetary policy shocks.

Labor Markets, Financial Crises, and Inflation: Jobless and Wageless Recoveries*

By Guillermo Calvo, **Emilio Colombi**, Fabrizio Coricelli and Pablo Ottonello
Bank of Canada Staff Working Paper 2026-31

This paper documents that financial crises are generally followed by "jobless recoveries," in which employment recovers more slowly than output. High-inflation crises in emerging markets differ: employment recovers more strongly while real wages remain persistently depressed, producing what the authors call "wageless recoveries."

Staff analytical papers

Supply and Demand-Driven inflation: Decomposition and policy implications

By **Kira Kang**, **Rodrigo Sekkel**, **Temel Taskin** and Jing Yang
Bank of Canada Staff Analytical Paper 2026-33

This paper decomposes Canadian inflation into supply- and demand-driven components using detailed expenditure data. Supply pressures accounted for the larger share of the post-pandemic increase in inflation, while monetary policy primarily affects, and responds more strongly to, demand-driven inflation.

How Do Interest Rates Spur the Housing Market: Exploring Nonlinear Effects

By **Benjamin Straus**, **Stéphane Surprenant** and Kerem Tuzcuoglu
Bank of Canada Staff Analytical Paper 2026-35

This paper examines whether the effects of monetary policy on Canadian housing depend on labour market conditions. Lower interest rates have larger effects when unemployment is low, and because housing demand responds more strongly than supply, monetary easing can intensify affordability pressures when labour markets are strong.

Tracking Heterogeneous Spending Patterns with Credit Card Microdata

By **Jia Qi Xiao**, **Jackson Reid** and Joey Daniels
Bank of Canada Staff Analytical Paper 2026-38

This paper develops a high-frequency measure of household credit card spending using anonymized credit bureau microdata covering about 80% of Canadian adults. The measure can be broken down by characteristics such as age, location and credit history, providing a timelier and more granular view of changes in household spending.

Segmented Inflation Dynamics (SID): Identifying Trend Inflation from the Price Index

By **André Binette** and **Colleen Smith**
Bank of Canada Staff Analytical Paper 2026-43

This paper introduces Segmented Inflation Dynamics, a data-driven method that identifies periods of stable trend inflation directly from the price index. The resulting measure is relatively insensitive to temporary volatility but adjusts to persistent changes in inflation dynamics and indicates that Canadian trend inflation has been near 2% since early 2024.

What happens after Governing Council sets the policy interest rate: Inside the implementation framework that makes monetary policy work

By **Kaetlynd McRae**
Bank of Canada Staff Analytical Paper 2026-45

This paper explains how the Bank's monetary policy implementation framework helps keep short-term market rates close to the policy rate, with CORRA serving as a key measure of interest rate control. The framework supplies sufficient settlement liquidity while using targeted operations and facilities to address market pressures without unnecessarily expanding the Bank's balance sheet.

Sector-based producer price indexes: New measures of producer price pressures in Canada

By **Yena Joo**, **Ali Rouhghalandari**, **Vivian Chu** and Xin Ha
Bank of Canada Staff Analytical Paper 2026-46

This paper introduces broad sectoral measures of producer price pressures constructed by combining Statistics Canada's existing product- and industry-level price indexes. The new indexes provide a consolidated view of changes in the prices producers receive for their outputs and pay for their inputs across sectors of the Canadian economy.

Prima: The Bank of Canada's New Projection and Policy-Analysis Model—An Overview

By **Don Coletti**, **Martin Kuncl**, **Martin Harding**, **Dmitry Matveev**, Tolga Özden and **Yang Zhang**
Bank of Canada Staff Analytical Paper 2026-47

This paper provides an overview of Prima, the Bank of Canada's new model for macroeconomic projection and policy analysis. Prima builds on the economic foundations of earlier Bank models while introducing greater detail on sectoral production-cost pressures and how those pressures pass through to consumer prices.



Structural challenges

In-press academic publications

Techno-nationalism's paradox in international standard setting

By Qingqing Chen and **Hong Yu Xiao**
Journal of International Business Studies, Vol. 57, April 2026, pp. 677-694

This paper shows that restrictions on technology flows can unintentionally weaken domestic firms' influence over international standards by disrupting the knowledge sharing and coordination needed to develop them. Evidence from U.S. sanctions on Huawei supports this effect, particularly when firms are technologically interdependent or working on emerging technologies.

Staff working papers

Climate stress test of the global supply chain network: the case of river floods

By Georgios Papadopoulos, **Javier Ojea Ferreiro** and Roberto Panzica
Bank of Canada Staff Working Paper 2026-30

This paper uses a firm-level network model to study how production disruptions from extreme river floods propagate through global supply chains. Lean inventories lead to faster contagion, greater losses and fewer recoveries, while characteristics of affected firms' trade links may provide an early signal of rapidly escalating disruptions.

Automation and Inequality: How Robots Shift Income Between Workers and Owners

By **Gabriela Galassi** and **Gaelan MacKenzie**
Bank of Canada Staff Working Paper 2026-34

This paper examines how industrial robot adoption affects workers and owners within Canadian private corporations. Adoption is associated with higher revenues, value added, employment and payroll without reducing the conventional labour share of value added, while owners benefit primarily through higher employment income.

Staff analytical papers

Monetary Policy Challenges in a Volatile World

By **Stefano Gnocchi** and **Matteo Cacciatore**
Bank of Canada Staff Analytical Paper 2026-34

This paper examines how greater macroeconomic volatility and structural changes such as deglobalization, climate risks and AI adoption may reshape inflation dynamics and monetary policy trade-offs. It finds that the existing monetary policy framework provides scope to accommodate supply-driven inflation, provided inflation expectations remain anchored and the policy response reflects the size and persistence of the shock.

Climate Change and Monetary Policy: Navigating Physical Risks

By **Tatjana Dahlhaus**
Bank of Canada Staff Analytical Paper 2026-44

This paper examines how physical climate risks affect output, inflation and the trade-offs confronting monetary policy, with a focus on Canada. Climate-related disasters can simultaneously damage productive capacity, reduce economic activity and raise prices, suggesting that more frequent or severe events could make inflation stabilization more challenging.



In-press academic publications

Macroprudential regulation and banks' supply of liquidity services

By **Josef Schroth**
Journal of Financial Economics, Vol. 184, October 2026

This paper studies how monetary and macroprudential policies interact when banks provide liquidity through deposits while holding loans and safe bonds. Optimal policy coordination calls for lower safe-bond holdings when additional capital buffers are required and a somewhat tighter monetary policy stance when those buffers are released.

How Much Risk in U.S. Government Bond Markets Is Transmitted to Their Canadian Counterparts?

By **Bruno Feunou**, **Jean-Sebastian Fontaine** and Robert Hill
Risks, Vol. 14(6), June 2026

This paper develops a framework for measuring time-varying tail dependence between U.S. and Canadian term premia. Applied to the sharp rise in U.S. term premia in December 2024, the framework shows that short-horizon spillover risk to Canada declined markedly even as overall bond-market risk increased, a distinction that standard correlation measures can miss.

Staff working papers

Time-Inconsistent Manager Incentives and Capital Formation

By Jose-Victor Rios-Rull, **Josef Schroth**, **Tamon Takamura** and **Yaz Terajima**
Bank of Canada Staff Working Paper 2026-25

This paper shows that compensating managers based on total payouts can create short-term incentives that lead firms to raise outside equity while investing too little. Compensation based on payouts per share instead removes the incentive to dilute existing shareholders and restores efficient equity issuance and investment.

A New Approach to Estimating Portfolio-Balance Models of the Yield Curve

By **Antonio Diez de los Rios**
Bank of Canada Staff Working Paper 2026-33

This paper develops a two-step method for estimating portfolio-balance models of the yield curve using standard dynamic term-structure methods, avoiding the fixed-point problem associated with conventional estimation. Applied to U.S. Treasury data, the method recovers economically interpretable shocks related to hedging risk premia, risk-bearing capacity and monetary policy.

Staff analytical papers

The Boundaries of Bank Funding: The Case of Canadian Cash ETFs

By **Jean-Sebastien Fontaine**, **Vincent Meh** and Jayden Plener
Bank of Canada Staff Analytical Paper 2026-32

This paper examines how bank liquidity regulation can influence where asset managers hold their cash. Following OSFI's clarification of the treatment of deposits from asset managers, Canadian cash ETFs shifted away from bank deposits toward money-market securities, showing that banking regulation can affect liquidity allocation across the broader financial system.

Hedge funds and bond market liquidity dynamics at the onset of the 2026 Middle East conflict

By **Vincent Meh**, **Jabir Sandhu** and **Andreas Uthemann**
Bank of Canada Staff Analytical Paper 2026-42

This paper examines whether hedge funds and other asset managers contributed to illiquidity in the Government of Canada bond market at the onset of the 2026 Middle East conflict. It finds no evidence that they did: hedge funds remained active in primary auctions and their secondary-market trading remained broadly consistent with their usual relative-value strategies.

Uncovering the use of haircuts in the Canadian repo market

By **Sadia Anum**, **Jabir Sandhu** and **Adrian Walton**
Bank of Canada Staff Analytical Paper 2026-39

This paper uses transaction-level data to document haircut practices in Canada's dealer-to-client repo market. Haircuts are uncommon across most collateral types, maturities and counterparties and did not increase materially during past periods of market stress, although their use is more common among wealth managers and some foreign official institutions.



Forthcoming academic publications

Asymmetric systemic risk

By **Radoslav Raykov** and Consuelo Silva-Buston
Journal of Financial Stability, Vol. 87, December 2026

This paper finds that systemic risk transmission is stronger from the banking system to individual banks than from individual banks to the system. Banks with greater net exposure to system-wide risk had higher default risk during the global financial crisis, suggesting that regulation focused on these exposures could complement approaches centred on bank size.

Staff working papers

From Stress to Strategy: How Banks Balance the Scales

By Ruben Hipp and **Javier Ojea Ferreiro**
Bank of Canada Staff Working Paper 2026-26

This paper develops a stress-testing framework in which banks strategically adjust their balance sheets in response to regulatory constraints and market conditions. Applied to Canada's largest banks, the model finds nonlinear effects of capital constraints on lending and identifies potential stress scenarios that conventional scenario design could miss.

Staff analytical papers

Non-bank financial intermediation: Canada's submission to the 2025 global monitoring report

By **Thomas Thorn** and **Sylvia Xie**
Bank of Canada Staff Analytical Paper 2026-37

This paper presents data on Canadian non-bank financial intermediation collected for the Financial Stability Board's global monitoring exercise. It provides historical and recent context on developments in the sector using data from 2002 to 2024, without providing an overall assessment of associated financial-system vulnerabilities.

Balancing the Canadian Repo Market through QT: The Diminishing Role of Settlement Balances

By Evan Dudley, **Jean-Sébastien Fontaine**, Dimitri Hadjistavropoulos, **Neil Maru**, **Sofia Tchamova**, **Andreas Uthemann** and **Jun Yang**
Bank of Canada Staff Analytical Paper 2026-40

This paper examines how banks and dealers absorbed imbalances in Canada's repo market as settlement balances declined during quantitative tightening. Settlement balances became less important as a buffer, while banks and dealers relied more on redistribution among themselves, foreign-currency markets and Receiver General and Bank of Canada facilities.

Money and payments



In-press academic publications

Liquidity Optimization in Gross Settlement Systems with Quantum Reordering: Application to TARGET2

By Valerio Astuti, Adriano Baldeschi, Luca Bastianelli, Giuseppe Bruno, **Ajit Desai**, Danica Marsden and Riccardo Russo
Journal of Economic Dynamics and Control, Vol. 190, September 2026
Also published under Bank of Canada Staff Working Paper 2026-32

This paper examines whether reordering queued payments can reduce the liquidity needed to settle payments in TARGET2. A hybrid quantum solver generates meaningful savings for smaller payment batches, while a classical simulated-annealing algorithm performs comparably at those sizes and can process substantially larger batches.

Digital payments in network formation games: Theory of adoption and quantum algorithms

By Sofia Priazhkina, Samuel Palmer, Pablo Martin-Ramiro, Roman Orus, Samuel Mugel and **Vladimir Skavysh**
Journal of Economic Dynamics and Control, Vol. 190, September 2026

This paper models firms' adoption and use of a new digital payment method as a network-formation game, showing that adoption can be heterogeneous and inefficient and that greater use need not imply broader adoption. It reformulates the network problem as a quadratic unconstrained binary optimization problem, making it possible to solve empirically relevant network games using quantum computing.

Staff analytical papers

2025 Methods-of-Payment Survey Report: Cash in an Increasingly Digital and Mobile Economy

By **Marie-Hélène Felt**, **Saika Pacouloute** and **Angelika Welte**
Bank of Canada Staff Analytical Paper 2026-36

This report documents how Canadians pay for everyday purchases and use cash as digital payment methods become more widespread. Contactless cards dominate in-person payments and mobile payments are growing, but most Canadians continue to hold cash, use it and view it favourably.

Merchant Access to Cash: Going the Extra Kilometer?

By **Angelika Welte**, **Stephen Wild** and Patrick Fogaing Kouamo
Bank of Canada Staff Analytical Paper 2026-41

This paper measures small and medium-sized businesses' access to cash using driving distances to financial institution branches. Although 84% of businesses are within 5 kilometres of their nearest branch, fewer than one-quarter bank with the institution operating that branch, indicating that proximity is only one factor in banking choices.