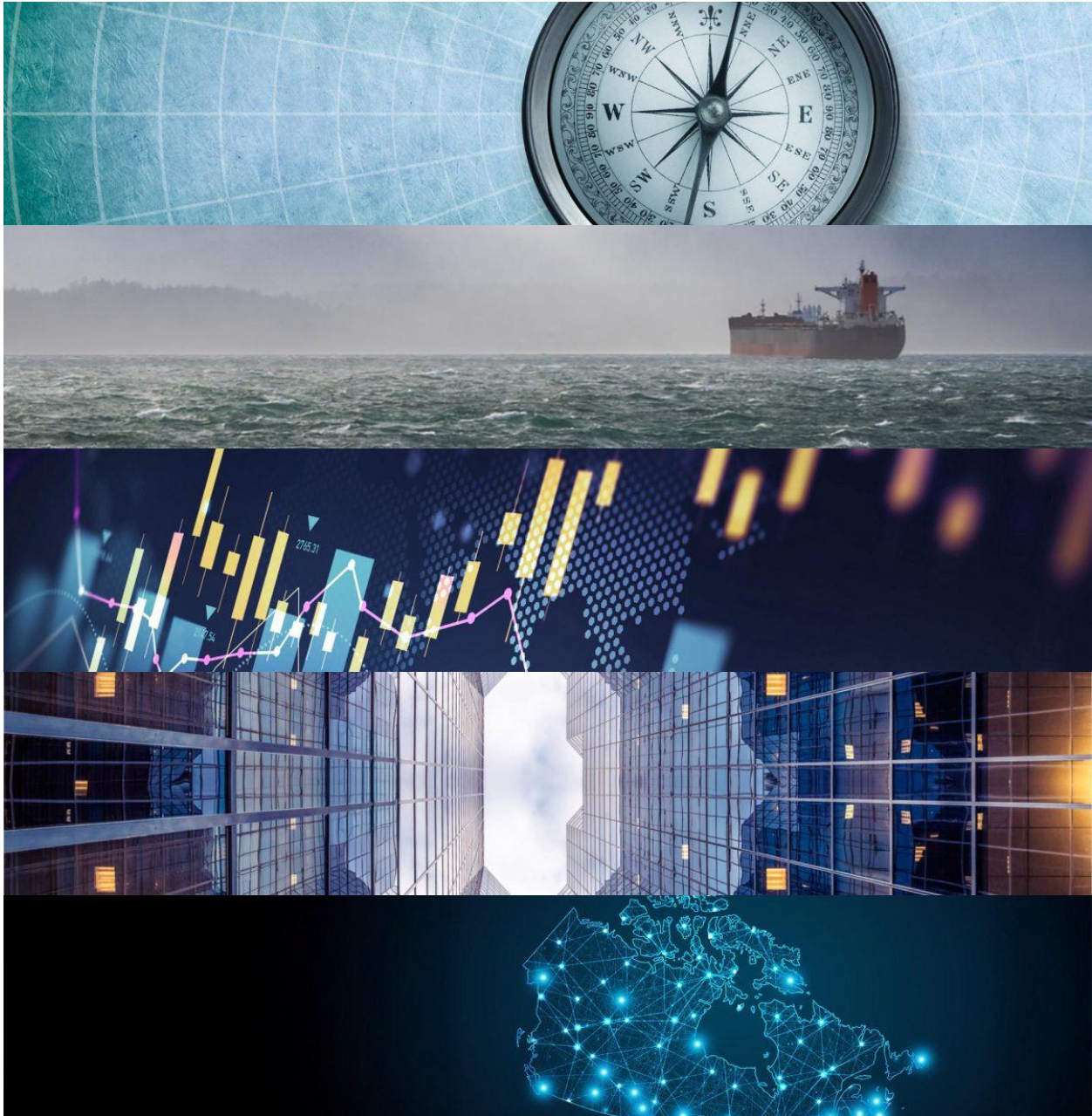


# Quarterly Research Newsletter

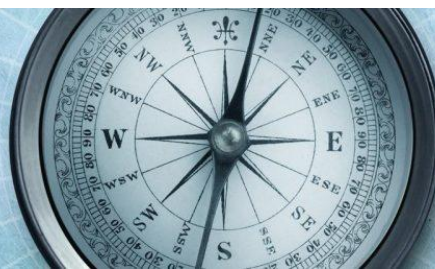
## First quarter of 2026



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



# Monetary policy



## In-press academic publications

### [A reappraisal of real-time forecasts of the real price of oil](#)

By Eric Benyo, **Reinhard Ellwanger** and Stephen Snudden  
*Economic Inquiry*, Vol. 64(1), January 2026

The paper reassesses the predictability of real-time oil price forecasts by replicating Baumeister and Kilian (2012) using a corrected random-walk benchmark based on end-of-month prices rather than monthly averages. Once this methodological correction is applied, most model-based forecasts no longer outperform the random walk at short horizons, with only futures-based forecasts showing robust gains—and only at longer horizons—calling into question the consensus view that oil prices are systematically predictable.

### [Does the Sequence Matter: Interest Rates, Quantitative Easing or Forward Guidance?](#)

By Tudor Schlager, **Lena Suchanek**, Jonathan Swarbrick, Joel Wagner and **Yang Zhang**  
*International Journal of Central Banking*, Vol. 22(1), January 2026

The paper uses the Bank of Canada's main DSGE model (ToTEM) to study how the sequencing of extended monetary policy tools—forward guidance, quantitative easing, and credit easing—affects macroeconomic outcomes when policy rates are constrained at the effective lower bound during a pandemic. It finds that front-loaded deployment of forward guidance and quantitative easing, followed by credit easing, delivers the strongest stabilization of GDP and inflation, while delayed or staggered implementation substantially reduces policy effectiveness.

### [Robust regularities in the heterogeneity of consumer price inflation](#)

By Bingxin Ann Xing, **Bruno Feunou** and Roméo Tédongap  
*Journal of International Money and Finance*, Vol. 163, March 2026

The paper documents large and persistent heterogeneity in inflation across consumer goods and shows that this variation is systematically explained by goods' differential exposure to pro- and counter-cyclical macroeconomic factors. Goods that provide affordability insurance in downturns (counter-cyclical) exhibit higher excess inflation, while those that hedge bad times (pro-cyclical) have lower excess inflation, linking micro price dynamics to inflation risk and premia.

### **Distorted prices and targeted taxes in the New Keynesian Network model**

By **Anastasiia Antonova** and Gernot J. Müller  
*Journal of Monetary Economics*, Vol. 158, March 2026

The paper develops a New Keynesian Network model with nominal rigidities and input-output linkages to study how sector-specific taxes and production subsidies can optimally offset distortions caused by sectoral supply and demand shocks. It shows that a budget-neutral policy using paired sales taxes and production subsidies across all sectors can fully replicate the flexible-price allocation, while simple inflation-based rules tied to network exposure closely approximate the first-best outcome when shocks are unobservable.

## **Staff working papers**

### **Housing and the Long-Term Real Effects of Changes in Trend Inflation**

By James C. MacGee and Yuxi Yao  
Bank of Canada Staff Working Paper 2026-1

This paper shows that anticipated (trend) inflation has persistent real effects on housing, debt, and consumption because fixed-amortization mortgages front-load real payments when inflation is higher. As a result, changes in inflation targets can generate long housing-market transitions—lasting up to 20 years—and materially affect homeownership and mortgage debt dynamics.

### **Monetary Policy Under Okun's Hypothesis**

By **Felipe Alves** and Giovanni L. Violante  
Bank of Canada Staff Working Paper 2026-3

The paper evaluates whether running a high-pressure economy yields persistent employment gains for disadvantaged workers, as implied by Okun's hypothesis. It finds that while tight labor markets improve outcomes temporarily, the effects fade once conditions normalize, limiting the case for systematically overheating the economy.

### **Do Monetary Policy Shocks Affect the Neutral Rate of Interest?**

By Danilo Leiva-Leon, **Rodrigo Sekkel** and **Luis Uzeda**  
Bank of Canada Staff Working Paper 2026-6

Using a new statistical model, we show that interest rate hikes tend to lower  $r$ -star and long-run growth, but that monetary policy explains only a small share of the long-run decline in  $r$ -star.

### **MSTest: An R-Package for Testing Markov Switching Models**

By **Gabriel Rodriguez Rondon** & Jean-Marie Dufour  
Bank of Canada Staff Working Paper 2026-7

The paper introduces MSTest, an R package that provides robust hypothesis tests to determine the number of regimes in Markov switching and hidden Markov models under weak regularity conditions. It implements likelihood-ratio, moment-based, and parameter-stability tests—many with finite-sample validity—and demonstrates their use through simulation and empirical macro-financial examples.

### **Beating the “pros” with a semi-structural model of their own inflation forecasts**

By **Sergio A. Lago Alves** and Waldyr Dutra Areosa and Carlos Viana de Carvalho  
Bank of Canada Staff Working Paper 2026-11

We extract improved forecasts from the US Survey of Professional Forecasters data by explicitly modeling their expectation frictions. Using a theoretical model of noisy-dispersed information, we show how survey forecast disagreement can be used ex-ante to pin down which forecast horizons are prone to be improved in applied exercises.

## **Staff analytical papers**

### **Extraordinary Forward Guidance in Canada During the Pandemic**

By **Christopher S. Sutherland**  
Bank of Canada Staff Analytical Paper 2026-1

The paper assesses the Bank of Canada’s use of extraordinary forward guidance during COVID-19, focusing on trade-offs between policy effectiveness, flexibility, and credibility. It concludes that a state-contingent, explicitly bounded approach helped preserve inflation-targeting credibility while still delivering strong monetary stimulus under extreme uncertainty.

### **Channels of Transmission: How Mortgage Rates Affect House Prices and Rents in Canada**

By **Nishaad Rao** and **Tao Wang**  
Bank of Canada Staff Analytical Paper 2026-2

This paper shows that monetary policy tightening in Canada lowers house prices while raising CPI-rent, as higher mortgage rates increase landlords’ user costs and reduce transitions into homeownership. These effects vary across cities, with house prices reacting more strongly where housing supply is inelastic and rent pressures amplified where fewer renters can switch to owning.

### **AI Paradox: Promise vs. Reality—What It Means for Monetary Policy**

By **Joshua Brault, Maryam Haghighi** and **Jing Yang**

Bank of Canada Staff Analytical Paper 2026-4

The paper argues that despite rapid advances in AI, aggregate productivity and employment effects have so far been modest because adoption is uneven and requires time-consuming organizational restructuring. For monetary policy, this implies a gradual rise in potential output and temporary reallocation-driven inflation pressures, calling for caution in interpreting labour-market slack and inflation signals during the AI transition.

### **The aggregate and heterogeneous effects of responding to shelter inflation**

By **Michael Irwin** and **Matias Vieyra**

Bank of Canada Staff Analytical Paper 2026-5

We study how a central bank should conduct monetary policy when shelter inflation is persistently high, focusing on how interest-rate changes transmit to house prices, rents, and mortgage interest costs. We find that while the aggregate macro effects of responding to shelter inflation are generally small, the distributional effects are large.

### **The Governor's Challenge: A Decade of Success**

By **James Chapman, Stephanie Houle**, and Lawrence L. Schembri

Bank of Canada Staff Analytical Paper 2026-9

This paper reviews the first decade of the Bank of Canada's Governor's Challenge, an undergraduate competition designed to deepen public understanding of monetary policy through hands-on policy analysis and presentation. Drawing on ten years of experience, it highlights the program's success in broad national participation, experiential learning, and strengthening students' macroeconomic and applied econometric skills.



# Structural challenges

## In-press academic publications

### [Flagship Entry in Online Marketplaces](#)

By Ginger Zhe Jin, **Zhentong Lu**, Xiaolu Zhou and Lu Fang  
*Journal of Industrial Economics*, Vol. 74(1), March 2026

The paper examines how the entry of brand-owned flagship stores into large online marketplaces reshapes competitive structure, pricing, and seller dynamics in the retail sector, highlighting how digital platforms alter firm behavior and market outcomes. Using a structural demand–supply model and counterfactual analysis, it shows that flagship entry creates trade-offs between competition, consumer welfare, and platform performance that are central to understanding digitalization and structural change in modern economies.

### [Physician Agency and the Zero-Markup Drug Policy in China: Evidence From a Structural Model](#)

By Qifan Huang, **Zhentong Lu** and Castiel Chen Zhuang  
*Health Economics*, Vol. 35(4), April 2026

The authors estimate a structural model of China’s prescription drug market around the Zero-Markup Drug Policy (ZMDP) and find strong physician agency: prescribing decisions are about three times more sensitive to hospital profit margins than to patients’ retail prices. They show the ZMDP explains more than half of the decline in average wholesale prices, improves patient welfare but reduces firms’ sales/profits, and that a partial restoration of drug markups could raise overall social welfare.

## Forthcoming academic publications

### [Nonparametric Identification of Incomplete Information Discrete Games With Non-Equilibrium Behaviors](#)

By **Erhao Xie**  
*Journal of Applied Econometrics*, March 2026

This paper develops a tool to estimate discrete choice games when players exhibit non-equilibrium behaviors. The tool can be applied to infer the competitive structure in the banking industry.

## **Testing collusion and cooperation in binary choice games**

By **Erhao Xie**

*Econometric Reviews*, March 2026

This paper builds a machinery to test whether firms exhibit collusive behaviors when making their entry decision. The method can be exploited to infer market conduct (i.e., collusion versus competition) in the banking industry.



# Financial markets

## Staff working papers

### [Information, Prices and Buyer Entry](#)

By Mei Dong, **Janet Hua Jiang**, and Ling Sun  
Bank of Canada Staff Working Paper 2026-4

This paper shows that greater price transparency can raise prices and markups when buyers face entry costs, because improved information attracts more buyers and intensifies demand-side competition. Once buyer or seller entry is endogenous, this entry effect can dominate standard seller competition, overturning the conventional view that transparency lowers prices.

### [Estimation and Inference for Stochastic Volatility Models with Heavy-Tailed Distributions](#)

By **Gabriel Rodriguez Rondon**, Jean-Marie Dufour, and Md. Nazmul Ahsan  
Bank of Canada Staff Working Paper 2026-8

The paper develops fast, closed-form estimators for stochastic volatility models with heavy-tailed errors, using winsorized moment conditions to achieve robustness and avoid numerical optimization. Simulation and equity-return evidence show accurate estimation and reliable Monte Carlo inference, with strong rejection of Gaussian volatility in favor of heavy tails.

## Staff analytical papers

### [Macro News in Market Moves: Classifying News through Asset Co-movements](#)

By **Bruno Feunou**, **Jean-Sébastien Fontaine** and **Rishi Vala**  
Bank of Canada Staff Analytical Paper 2026-7

This paper introduces CLONE, a method that decomposes asset price movements into aggregate demand, productivity, inflation, and monetary policy news, using stocks, bonds, and inflation swaps. CLONE simplicity and forward-looking focus helps guide policymakers in determining the economic drivers behind asset price movements.

## **Government of Canada Fixed-Income Market Ecology II: Government of Canada Bond Dealing**

By Petr Kocourek and **Adrian Walton**

Bank of Canada Staff Analytical Paper 2026-11

This paper examines how investment dealers intermediate and provide liquidity in the Government of Canada bond market, focusing on hedging, funding, and regulatory constraints that shape trading costs and liquidity across benchmark and non-benchmark bonds. It shows that short-term interest rate volatility, repo funding, and the growing use of bond futures are central to dealers' risk management and to the resilience of market liquidity.



# Financial system

## In-press academic publications

### [Housing affordability and parental income support: The role of mortgage co-signing](#)

By Jason Allen, Kyra Carmichael, Robert Clark, **Shaoteng Li** and **Nicolas Vincent**  
*Journal of Financial Economics*, Vol. 178, April 2026

We document growing reliance by first-time homebuyers on parental support through mortgage co-signing in Canada. While this increases purchasing power, it can also expose both co-signing parties to greater risk of financial stress due to increased leverage.

### [Tail market linkage between Canadian banks and non-bank financial intermediaries](#)

By **Javier Ojea-Ferreiro**  
*Finance Research Letters*, Vol. 97, May 2026

This paper analyzes market-based connections between Canadian banks and non-bank financial institutions during periods of stress. The findings highlight the growing importance of the bank–NBFI nexus for financial stability monitoring and the usefulness of market-based tail risk measures for tracking systemic vulnerabilities in real time.

## Staff working papers

### [The Value of Mortgage Choice: Payment Structure and Contract Length](#)

By Michael Boutros, Nuno Clara and **Katya Kartashova**  
Bank of Canada Staff Working Paper 2026-2

This paper shows that allowing households to choose among fixed-rate fixed-payment, variable-rate variable-payment, and hybrid variable-rate fixed-payment mortgages substantially improves welfare by expanding households' ability to manage payment and balance risk. Restricting contract choice—such as mandating long-term fixed mortgages as in the U.S.—raises borrowing costs, amplifies welfare losses, and alters monetary-policy transmission through the mortgage channel.

### **The Usage of Security Lending Facilities under Unconventional Monetary Policy: Evidence from Sweden**

By Marianna Blix Grimaldi, **Fabienne Schneider** and David Vestin  
Bank of Canada Staff Working Paper 2026-9

This paper examines the interaction between quantitative easing (QE) and the securities lending facility (SLF) using a detailed dataset on Riksbank QE purchases, Swedish Debt Management Office SLF transactions and OTC repo deals. A theoretical model further shows how excess demand for assets and search frictions shift the SLF from a backstop to a first-resort tool.

## **Staff analytical papers**

### **Consumers' Path to Mortgage Delinquency**

By **Laura Zhao, Jia Qi Xiao** and Aidan Witts  
Bank of Canada Staff Analytical Paper 2026-3

Using comprehensive Canadian credit-bureau microdata, this paper shows that mortgage delinquency is typically preceded by a long buildup of financial stress, with rising credit-card utilization and growing arrears on non-mortgage debts starting up to two years in advance. These behavioural signals provide robust early-warning indicators that can materially improve monitoring of household financial vulnerability.

### **Repo transaction costs and balance sheet frictions**

By **Yanis Belkacem, Fabienne Schneider** and **Adrian Walton**  
Bank of Canada Staff Analytical Paper 2026-10

We develop an approach to quantify transaction costs in the repo market using OTC transaction data, where quoted bid-ask spreads are not observable. By estimating effective spreads at the level of individual trades, we construct a novel metric to evaluate intermediation costs across different segments of the market.

### **Examining the macro drivers of mortgage arrears in Canada**

By **Thomas Michael Pugh, Tao Wang** and **Taylor Webley**  
Bank of Canada Staff Analytical Paper 2026-12

This paper studies how macroeconomic conditions—especially labour market dynamics and mortgage interest rates—drive mortgage arrears in Canada using provincial regressions and a structural VAR framework. It finds that labour market deterioration is the dominant causal factor behind rising arrears, with higher interest rates playing a secondary but important role in shaping household financial stress.

# Money and payments



## Forthcoming academic publications

### [Payment Flows, Bank Lending, and Central Bank Digital Currencies](#)

By **Yuteng Cheng** and Ryuichiro Izumi

*Journal of Money, Credit and Banking*, February 2026

The paper studies how the design of a CBDC's payment-flow observability (privacy vs. verifiability) affects bank lending when lenders rely on transaction data to enforce repayment and make refinancing decisions. It shows that intermediate observability can create pooling and inefficient credit allocation, so the socially optimal design is typically either deposit-like (high observability) or cash-like (low observability), depending on how much the CBDC boosts entrepreneurs' revenues.

## Staff working papers

### [I Am So Tired! I Don't Know What to Do! Survey Fatigue and Financial Literacy: Results from a Randomized Experiment](#)

By Anna Chernesky and Kim Huynh and Marcel Voia

Bank of Canada Staff Working Paper 2026-5

The paper shows that survey fatigue biases financial literacy measures: placing the "Big Three" questions at the end of a long survey lowers correct responses by 5–15 percentage points and raises "Don't know" answers. Because incorrect responses remain stable, the authors argue they are a more robust indicator of true financial literacy than correct or DK responses in payment-related surveys.

### [Public vs. Private Payment Platforms: Market Impacts and Optimal Policy](#)

By **Yuming Liu**, **Francisco Rivadeneyra** and Edona Reshidi

Bank of Canada Staff Working Paper 2026-10

We study the competition between a welfare-maximizing public payment platform (e.g., CBDC or fast payment system) and a profit-maximizing private platform in a two-sided market, deriving optimal public pricing and showing how network effects, fragmentation, and policy mandates like zero fees or cost recovery shape welfare, usage, and fee incidence.

## Staff analytical paper

### [How Do Some Lower-Income Canadians Pay](#)

By Jerry Buckland, Christopher Henry, Wendy Nur, Aidan Romanow-Bear and **Stephen Wild**

Bank of Canada Staff Analytical Paper 2026-6

Using detailed financial diary data, this paper examines how some lower-income Canadians use cash, debit, credit and electronic payments, highlighting strong heterogeneity and habitual payment behaviour across individuals. It finds that transaction intensity differs widely and that, for some high-transaction users, higher-fee bank account packages can be a financially rational choice despite low income.

### [Project Samara Research Paper](#)

By **Rakesh Arora**, Umar Faruqui, Scott Hendry, Dinesh Shah and **Andre Usche**

Bank of Canada Staff Analytical Paper 2026-8

Project Samara evaluates whether distributed ledger technology and wholesale central bank digital money (W-CAD) can improve bond issuance, settlement, and life-cycle management in Canadian capital markets. A live pilot shows that while DLT enables same-day atomic settlement and operational efficiencies, these gains are offset by higher governance complexity, liquidity costs, and unresolved legal and regulatory challenges, leaving the net benefits uncertain.