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Ce bulletin mensuel présente les publications les plus récentes des économistes de la Banque. Le rapport inclut des études parues dans des publications externes et les documents de travail du personnel publiés sur le site Web de la Banque du Canada.

PUBLICATIONS

Dans la presse

Hommes, Cars & Kopányi-Peuker, Anita & Sonnemans, Joep, "Bubbles, crashes and information contagion in large-group asset market experiments", Experimental Economics, Vol 24: 413-433, juin 2021

Garratt, Rodney J. & Oordt, Maarten R.C. van, "Privacy as a Public Good: A Case for Electronic Cash", Journal of Political Economy, Vol 129(7): 2157-2180, juillet 2021

Guo, Jinggang & Johnston, Craig M.T., "Do protectionist trade policies integrate domestic markets? Evidence from the Canada-U.S. softwood lumber dispute", Forest Policy and Economics, Vol 130, septembre 2021

Kooten, G. Cornelis van Kooten & Withey, Patrick & Johnston, Craig M.T., "Climate urgency and the timing of carbon fluxes", Biomass and Bioenergy, Vol 151, août 2021

Giannone, Elisa & Paixão, Nuno & Pang, Xinle, "The Geography of Pandemic Containment", Journal of Urban Economics, Vol 124, juillet 2021

À paraître

Chiu, Jonathan & Wong, Tsz-Nga, "Payments on Digital Platforms: Resiliency, Interoperability and Welfare", Journal of Economic Dynamics and Control

Swarbick, Jonathan, "Lending Standards, Productivity and Credit Crunches", Macroeconomic Dynamics

Lu, Zhentong, "Estimating Multinomial Choice Models with Unobserved Choice Sets", Journal of Econometrics

Ahnert, Toni & Perotti, Enrico, "Cheap but flighty: A theory of safety-seeking capital flows", Journal of Banking & Finance

DOCUMENTS DE TRAVAIL DU PERSONNEL

Chernoff, Alex & Warman, Casey, "COVID-19 and Implications for Automation", Document de travail du personnel de la Banque du Canada 2021-25

Beaudry, Paul & Meh, Césaire, "Monetary Policy, Trends in Real Interest Rates and Depressed Demand", Document de travail du personnel de la Banque du Canada 2021-27

Chen, Heng & Strathearn, Matthew & Voia, Marcel, "Consumer Cash Withdrawal Behaviour: Branch Networks and Online Financial Innovation", Document de travail du personnel de la Banque du Canada 2021-28

Zhang, Xu, "A New Measure of Monetary Policy Shocks", Document de travail du personnel de la Banque du Canada 2021-29

Ahnert,Toni & Martinez-Miera, David, "Bank Runs, Bank Competition and Opacity", Document de travail du personnel de la Banque du Canada 2021-30

Zivanovic, Jelena, "An Optimal Macroprudential Policy Mix for Segmented Credit Markets", Document de travail du personnel de la Banque du Canada 2021-31

DOCUMENTS D'ANALYSE DU PERSONNEL

Portelance, Annie, "Measuring and Evaluating Strategic Communications at the Bank of Canada", Document d'analyse du personnel de la Banque du Canada 2021-9

RÉSUMÉS

Bubbles, crashes and information contagion in large-group asset market experiments

We study the emergence of bubbles in a laboratory experiment with large groups of individuals. The realized price is the aggregation of the forecasts of a group of individuals, with positive expectations feedback through speculative demand. When prices deviate from fundamental value, a random selection of participants receives news about overvaluation. Our findings are: (i) large asset bubbles are robust in large groups, (ii) information contagion through news affects behaviour and may break the coordination on a bubble, (iii) time varying heterogeneity provides an explanation of bubble formation and crashes, and (iv) bubbles are strongly amplified by coordination on trend-extrapolation.

Privacy as a Public Good: A Case for Electronic Cash

Privacy is a feature inherent to the use of cash. With steadily increasing market shares of digital payment platforms, privacy in payments may no longer be attainable in the future. We explore the potential welfare impacts of reductions in privacy in payments. In our framework, firms may use data collected through payments to price discriminate future consumers. A public good aspect arises because individuals do not internalize the full cost of failing to protect their privacy and reduce social welfare by suboptimally choosing not to protect their privacy in payments. We discuss potential remedies, including the issuance of electronic cash.

Do protectionist trade policies integrate domestic markets? Evidence from the Canada-U.S. softwood lumber dispute

We consider the effects of protectionist trade policies on international and domestic market integration, using evidence from the long-standing softwood lumber trade dispute between Canada and the United States. The benefits of trade liberalization are widely acknowledged, including better domestic-to-foreign price transmission due to reduced tariffs and lower trade costs between countries. Yet in recent years we see efforts to protect specific domestic groups, including producers, through a revival of protectionist trade policies. Such policies could improve the domestic price transmission across domestic markets as consumers may seek lower-cost alternatives domestically. We investigate these ideas using a bi-variate three-

regime threshold vector error-correction model to examine the spatial price transmission between Canadian and U.S. markets and within U.S. domestic markets. We do that by introducing a structural break at the start of an effective free trade period within our sample. The results suggest that duty-free treatment for imported Canadian softwood lumber substantially lowers the transaction costs between the two nations. Prices are more easily transmitted from the Canadian market to the U.S. at a higher speed, but the speed of price transmission in the reverse direction is not statistically significant. The U.S. domestic market experienced a higher speed of price adjustment across domestic regions prior to the free trade period, which provides evidence that protectionist policies lead to better domestic market integration.

Climate urgency and the timing of carbon fluxes

The current climate emergency dictates that immediate action is required to mitigate climate change, which implies that carbon fluxes occurring 20 or more years from now are too late to have any mitigative effect. Economic models discount monetized carbon fluxes, but do not include any discussion of physical carbon fluxes. To respond to a climate emergency, however, future physical carbon fluxes need to be discounted at a high rate to incentivize action today. Using the DICE model, we demonstrate that physical discounting of carbon erodes the effectiveness of afforestation and bioenergy projects that reduce emissions over time. Our analysis indicates that policymakers need to convert concerns about climate urgency into an actual policy variable, namely, a weighting scheme that discounts future physical carbon into a current - value equivalent, thereby removing incentives to delay climate action.

The Geography of Pandemic Containment

How does interconnectedness affect the course of a pandemic? What are the optimal containment policies in an economy with connected regions? We embed a spatial SIR model into a multi-sector quantitative trade model. We calibrate it to US states and the COVID-19 pandemic and find that interconnectedness increases the death toll by 146,200 lives. State-level policies that reduce within-state economic activity mitigate welfare losses by more than a uniform national policy or a policy that only reduces mobility between states. The optimal policy in mitigating welfare losses generated by the pandemic combines local within- and between-state restrictions and saves 289,300 lives, despite significantly exacerbating economic

losses and imposing mobility restrictions across states. Different timing of policies across states is key to minimize welfare losses. States like South Carolina might have imposed internal lockdowns too early but travel restrictions too late.

Payments on Digital Platforms: Resiliency, Interoperability and Welfare

Digital platforms, such as Alibaba and Amazon, operate an online marketplace to facilitate transactions. This paper studies a platform's business model choice between accepting cash and issuing tokens, as well as the implications for welfare, resiliency, and interoperability. A cash platform free rides on the existing payment infrastructure and profits from collecting transaction fees. A token platform earns seigniorage, albeit bearing the costs of setting up the system and holding reserves to mitigate the cyber risk. Tokens earn consumers a return, insulating transactions from the liquidity costs of using cash, but also expose them to the remaining cyber risk. The platform issues tokens if the interest rate is high, the platform scope is large, and the cyber risk is small. Unbacked floating tokens with zero transaction fees or interest-bearing stablecoins can implement the equilibrium business model, which is not necessarily socially optimal because the platform does not internalize its impacts on off-platform activities. The model explains why Amazon does not issue tokens, but Alipay issues tokens circulatable outside its Alibaba platforms. Regulations such as a minimum reserve requirement can reduce welfare.

Lending Standards, Productivity and Credit Crunches

We propose a macroeconomic model in which adverse selection in investment amplifies macroeconomic fluctuations, in line with the prominent role played by the credit crunch during the financial crisis. Endogenous lending standards emerge due to an informational asymmetry between borrowers and lenders about the riskiness of borrowers. By using loan approval probability as a screening device, banks ration credit following increases in lending risk, generating large endogenous movements in TFP, explaining why productivity often falls during crises. Furthermore, the mechanism implies that financial instability is heightened when interest rates are low.

Estimating Multinomial Choice Models with Unobserved Choice Sets

This paper proposes a new approach to estimating multinomial choice models when each consumer's actual choice set is unobservable but could be bounded by two known sets, i.e., the largest and smallest possible choice sets. The bounds on choice set, combined with a monotonicity property derived from utility maximization, imply a system of inequality restrictions on observed choice probabilities that could be used to identify and estimate the model. A key insight is that the identification of random utility model can be achieved without exact information on consumers' choice sets, which generalizes the identification result of the standard multinomial choice model. The effectiveness of the proposed approach is demonstrated via a range of Monte Carlo experiments as well as an empirical application to consumer demand for potato chips using household scanner data.

Cheap but flighty: A theory of safety-seeking capital flows

We offer a model of financial intermediaries as safe-asset providers in an international context. Investors from countries exposed to expropriation risk seek to invest in safe-haven countries in order to satisfy a demand for safety. Intermediaries compete for such cheap funding by carving out safe claims, which requires demandable debt. While these safety-seeking inflows allow developed countries to lower their funding cost and expand investment, risk-intolerant investors achieve safety by withdrawing even under minimal residual risk. As a result, safety-seeking inflows into developed countries not only reallocate but also create risk. Early liquidation inefficiently diverts scarce resources from productive uses, so a domestic planner wishes to contain the scale of safety-seeking inflows. A macroprudential regulator imposes a Pigouvian tax on safety-seeking inflows.

COVID-19 and Implications for Automation

COVID-19 may accelerate the automation of jobs as employers invest in technology to safeguard against pandemics. We identify occupations that have high automation potential and also exhibit a high risk of viral infection. We examine regional variation in terms of which U.S. local labor markets are most at risk. Next, we outline the differential impacts COVID-19 may have on different demographic groups. We find that the highest-risk occupations in the United States are those held by females with mid- to low wage and education levels. Using comparable data for 25 other countries, we also find that

women in this demographic are at the highest risk internationally. We examine monthly employment data from the United States and find that women in high-risk occupations experienced a larger initial decline in employment and a weaker recovery during the pandemic

Monetary Policy, Trends in Real Interest Rates and Depressed Demand

Au cours des dernières décennies, les taux d'intérêt réels se sont inscrits en baisse dans de nombreux pays. L'explication la plus courante est que ces tendances reflètent la faiblesse de la demande, qui s'explique par des facteurs démographiques et technologiques et d'autres facteurs réels, tels que les inégalités de revenu. Dans la présente étude, nous examinons l'hypothèse selon laquelle ces tendances ont pu être amplifiées par certaines caractéristiques de la politique monétaire. Nous montrons que, quand la demande à long terme d'actifs par les ménages présente une relation en forme de C par rapport aux taux d'intérêt réels, ce que nous expliquons par la volonté des ménages de constituer un héritage, la politique monétaire est susceptible d'influer sur les propriétés de l'état stationnaire même si la monnaie est neutre à long terme. Plus précisément, notre étude révèle que, si la politique monétaire réagit vigoureusement à l'inflation, cela soutient un état stationnaire où l'inflation avoisine la cible de la banque centrale. Toutefois, la même politique vigoureuse favorise simultanément l'apparition, et la coexistence, d'un deuxième état stationnaire stable et déterminé où le taux d'intérêt réel et l'inflation sont tous deux moins élevés et où la politique monétaire est limitée par la valeur plancher. Nous expliquons également comment la politique budgétaire peut être utilisée pour s'échapper de cette trappe de bas taux d'intérêt réel et de basse inflation qui pourrait provoquer une réaction discontinue de l'inflation à long terme.

Consumer Cash Withdrawal Behaviour: Branch Networks and Online Financial Innovation

Constructing a novel micro-geographic individual-level data set, we study the relevance of shoe-leather costs on cash withdrawals. An unexplored issue in the literature is the consistent estimation of the marginal effect of travel distance on withdrawals when a fraction of unobserved withdrawals have free/low shoe-leather cost, i.e., consumers withdraw upon conveniently encountering a free/low cost withdrawal opportunity. To overcome this challenge, we propose a classification technique to identify respondents who have incurred these free/low cost withdrawals, and subsequently account for such

endogenous selection from the exclusion restriction of the adoption of recent online financial innovations. We find that there exist significant threshold effects of distance on typical monthly withdrawal frequency. For respondents living within 1.56 kilometers of their affiliated financial institution, a one-kilometer reduction in distance is associated with an average marginal increase of 0.31 withdrawals per month. In terms of heterogeneous effects, distance plays a larger role in higher-income and older-age cohorts. These results are robust to various econometric specifications.

A New Measure of Monetary Policy Shocks

Combining the high-frequency multidimensional approach of Gürkaynak et al. (2005) with Greenbook measures of the Federal Reserve's information set as in Romer and Romer (2004), I propose a new method of constructing a monetary policy shock that occurs on Federal Reserve announcement days. I provide substantial evidence that the new monetary policy shock is consistent with the predictions of workhorse macroeconomic models for structural monetary policy shocks. The new shock has large and highly statistically significant instantaneous effects on the Treasury yield curve. Using the shock as an external instrument in a VAR analysis, I find that contractionary monetary policy has modest downward effects on both output and inflation over business-cycle frequencies.

Bank Runs, Bank Competition and Opacity

We model the opacity and deposit rate choices of banks that imperfectly compete for uninsured deposits, are subject to runs, and face a threat of entry. We show how shocks that increase bank competition or bank transparency increase deposit rates, costly withdrawals, and thus bank fragility. Therefore, perfect competition is not socially optimal. We also propose a theory of bank opacity. The cost of opacity is more withdrawals from a solvent bank, lowering bank profits. The benefit of opacity is to deter the entry of a competitor, increasing future bank profits. The excessive opacity of incumbent banks rationalizes transparency regulation.

An Optimal Macroprudential Policy Mix for Segmented Credit Markets

This paper analyzes the design of simple macroprudential rules for bank and non-bank credit markets in a medium-scale dynamic stochastic general equilibrium model. In the model, mutual funds support corporate bond issuance by firms with access to capital

markets; a banking sector supplies loans to the remaining producers. This model is used to study the optimal design of monetary and macroprudential rules and to address whether financial stability in the banking and bond markets is welfare improving. First, in response to aggregate productivity and financial shocks, the welfare-maximizing monetary policy rule implies near price stability, while the optimal macroprudential policy rule stabilizes bank credit and bond volumes. Second, there is no trade-off between price and financial stability. Third, if the central bank cannot correctly identify a sector-specific financial shock, responding optimally as if the shock affects both sectors, then welfare outcomes are negligibly worse than those under the optimal policy.

Measuring and Evaluating Strategic Communications at the Bank of Canada

A central bank's ability to measure the impact of its communications is nothing less than challenging. This is for several reasons: (i) the general public is a vastly broad audience with varying degrees of knowledge of, interest in and engagement with economics and central banking; (ii) some communications goals—such as building trust—take a significant amount of time; (iii) results from communications efforts are often intangible and difficult to measure; and (iv) many communications outcomes are influenced by broader social factors that are beyond a central bank's control. The Bank of Canada's Communications Department has developed a framework to quantify and qualify the Bank's communications efforts and their results. Using data-based measurement and evaluation, the department can assess the impact of the Bank's communications activities and gauge the department's contribution to the Bank's overall goals. These measurement and evaluation activities have contributed significantly to the Communications Department's work, informing both strategic and tactical decisions. The use of measurement and evaluation brings a fresh perspective and enriches the practice of strategic communications—in a sense, integrating science into an established art. The Bank's framework provides a solid foundation upon which measurement and evaluation approaches can stand securely as they evolve.

ÉVÉNEMENTS À VENIR

*Toutes conférences et activités qui devaient être tenues sur place sont suspendues jusqu'à nouvel ordre. Tous les événements ci-dessous auront lieu en ligne.

Sebastien Betermier (McGill University)
Organizer: Série Conférencier FMD / FSD EFR
Date: 8 juillet 2021

Pubali Chakraborty (Ashoka University)
Organizer: INT forum de discussion sur les recherches
Date: 20 juillet 2021

Jing Cynthia Wu (University of Notre Dame, NBER)
Organizer: Série Conférencier FMD / FSD
Date: 19 août 2021

Harald Uhlig (University of Chicago)
Organizer: Série Conférencier BAP
Date: 23 août 2021

Daniel Carvalho (Kelley School of Business, Indiana University)
Organizer: Série Conférencier FMD / FSD EFR
Date: 26 août 2021