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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 & Salle, Isabelle & Hodbod, Alexander & Huber, Stefanie, "The COVID-19 consumption game-changer: evidence from a large-scale multi-country survey", European Economic Review, Vol 140(103953), decembre 2021

À paraître

Huynh, Kim P. & Ho, Anson T.Y. & Morin, Lealand & Paarsch, Harry J., "A Flexible Framework for Intervention Analysis Applied to Credit-Card Usage during the Coronavirus Pandemic", International Journal of Forecasting

Huynh, Kim P. & Ho, Anson T.Y. & Jacho-Chavez, David T. & Manta, Alexandra, "Estimating Social Effects in a Multilayered Linear-In-Means Model with Network Data", Statistics and Probability Letters

Cateau, Gino & Shukayev, Malik., "Limited Commitment, Endogenous Credibility and the Challenges of Price-level Targeting", Canadian Journal of Economics

Park, Youngmin & Lochner, Lance, "Earnings Dynamics and Intergenerational Transmission of Skill", Journal of Econometrics

DOCUMENTS DE TRAVAIL DU PERSONNEL

Chiu, Jonathan & Davoodalhosseini, Mohammad, "Central Bank Digital Currency and Banking: Macroeconomic Benefits of a Cash-Like Design", Document de travail du personnel de la Banque du Canada 2021-63

Arjani, Neville & Li, Fuchun & Lu, Zhentong, "Quantifying the Economic Benefits of Payments Modernization: the Case of the Large-Value Payment System", Document de travail du personnel de la Banque du Canada 2021-64

Li, Jiaqi, "Predicting the Demand for Central Bank Digital Currency: A Structural Analysis with Survey Data", Document de travail du personnel de la Banque du Canada 2021-65

Ozhan, Galip Kemal, "News-Driven International Credit Cycles", Document de travail du personnel de la Banque du Canada 2021-66

Kahn, Charles M. & Oordt, Maarten van & Zhu, Yu, "Best Before? Expiring Central Bank Digital Currency and Loss Recovery", Document de travail du personnel de la Banque du Canada 2021-67

DOCUMENTS D'ANALYSE DU PERSONNEL

Brooks, Skylar, "Revisiting the Monetary Sovereignty Rationale for CBDCs", Document d'analyse du personnel de la Banque du Canada 2021-17

RÉSUMÉS

The COVID-19 consumption game-changer: Evidence from a large-scale multi-country survey

Prospective economic developments depend on the behavior of consumer spending. A key question is whether private expenditures recover once social distancing restrictions are lifted or whether the COVID-19 crisis has a sustained impact on consumer confidence, preferences, and, hence, spending. The elongated and profound experience of the COVID-19 crisis may durably affect consumer preferences. We conducted a representative consumer survey in five European countries in summer 2020, after the release of the first wave's lockdown restrictions, and document the underlying reasons for households' reduction in consumption in five key sectors: tourism, hospitality, services, retail, and public transports. We identify a large confidence shock in the Southern European countries and a shift in consumer preferences in the Northern European countries, particularly among high-income earners. We conclude that the COVID-19 experience has altered consumer behavior and that long-term sectoral consumption shifts may occur.

A flexible framework for intervention analysis applied to credit-card usage during the coronavirus pandemic

We develop a variant of intervention analysis designed to measure a change in the law of motion for the distribution of individuals in a cross-section, rather than modeling the moments of the distribution. To calculate a counterfactual forecast, we discretize the distribution and employ a Markov model in which the transition probabilities are modeled as a multinomial logit distribution. Our approach is scalable and is designed to be applied to micro-level data. A wide panel often carries with it several imperfections that complicate the analysis when using traditional time-series methods; our framework accommodates these imperfections. The result is a framework rich enough to detect intervention effects that not only shift the mean, but also those that shift higher moments, while leaving lower moments unchanged. We apply this framework to document the changes in credit usage of consumers during the COVID-19 pandemic. We consider multinomial logit models of the dependence of credit card balances with categorical variables representing monthly seasonality, homeownership status, and credit scores. We find that, relative to our forecasts, consumers have greatly reduced their use of credit. This

result holds for homeowners and renters as well as consumers with both high and low credit scores.

Limited Commitment, Endogenous Credibility and the Challenges of Price-level Targeting

This paper studies the cost of limited commitment when a central bank has the discretion to adjust policy whenever the costs of honoring its past commitments become high. Specifically, we consider a central bank that seeks to implement optimal policy in a New Keynesian model by committing to a price-level target path. However, the central bank retains the flexibility to reset the target path if the cost of adhering to it exceeds a social tolerance threshold. We find that endowing the central bank with such discretion undermines the credibility of the price-level target and weakens its effectiveness to stabilize the economy through expectations. The endogenous nature of credibility also brings novel results relative to models with exogenous timing of target resets. A much higher degree of credibility is needed to realize the stabilization benefits of commitment. Multiple equilibria also emerge, including a low credibility equilibrium with frequent target resets and high volatility.

Estimating social effects in a multilayered Linear-in-Means model with network data

This paper studies the identification and estimation of social parameters in a general version of the Linear-in-Means model commonly fitted in the Social Sciences with multilayered network data. A Monte Carlo exercise showcases its good small-sample properties while an empirical application to Canadian consumers' credit usage demonstrates its applicability. Our estimates show that one's credit-card balance increases by $0.31 for an extra $1 owed by surrounding neighbors.

Earnings Dynamics and Intergenerational Transmission of Skill

This paper develops and estimates a two-factor model of intergenerational skill transmission when earnings inequality reflects differences in individual skills and other non-skill shocks. We consider heterogeneity in both initial skills and skill growth rates, allowing variation in skill growth to change over the lifecycle. Using administrative tax data on two linked generations of Canadians covering 37 years, we exploit covariances in log earnings (at different ages) both across and within generations to identify and estimate the intergenerational correlation structure for initial skills and skill growth

rates, lifecycle skill growth profiles, and the dynamics of non-skill earnings shocks.

We estimate low intergenerational elasticities (IGEs) for earnings in Canada (less than 0.2, even when based on 5-year and 9-year average earnings); however, skill IGEs are typically 2–3 times larger due to considerable (and persistent) variation in earnings conditional on skills. Both earnings and skill IGEs decline substantially for more recent cohorts and are lower for children born to younger fathers. We estimate significant heterogeneity in both initial skills and skill growth rates, showing that intergenerational transmission of these factors explains up to 40% of children's skill variation. Skills become a more important determinant of earnings over the first part of workers' careers, while intergenerational transmission of skills becomes less important with age. Although "inherited" initial skills (compared with skill growth) are a more important determinant of children's skills throughout their lives, parents' initial skills and skill growth rates are equally important determinants of children's skills, largely because both strongly influence children's initial skills.

Finally, we study intergenerational mobility for the 35 largest cities in Canada, determining the extent to which considerable differences in earnings and skill IGEs vary with the extent of local heterogeneity in parental skills vs. earnings instability.

Central Bank Digital Currency and Banking: Macroeconomic Benefits of a Cash-Like Design

Should a central bank digital currency (CBDC) be issued? Should its design be cash- or deposit-like? To answer these questions, we theoretically and quantitatively assess the effects of a CBDC on consumption, banking and welfare. Our model introduces new general equilibrium linkages across different types of retail transactions as well as a novel feedback effect from transactions to deposit creation. The general equilibrium effects of a CBDC are decomposed into three channels: payment efficiency, price effects and bank funding costs. We show that a cash-like CBDC is more effective than a deposit-like CBDC in promoting consumption and welfare. Interestingly, a cash-like CBDC can also crowd in banking, even in the absence of bank market power. In a calibrated model, at the maximum, a cash-like CBDC can increase bank intermediation by 5.8% and capture up to 25% of the payment market. In contrast, a deposit-like CBDC can crowd out banking by up to 2.6%, thereby grabbing a market share of about 16.7%.

Quantifying the Economic Benefits of Payments Modernization: the Case of the Large-Value Payment System

In this paper, we develop a discrete choice framework to quantify the economic benefits of payments modernization in Canada. Focusing on Canada's large-value transfer system (LVTS), we first estimate participants' preferences for liquidity cost, payment safety and the network effect by exploiting intraday variations in the relative choice probabilities of the two substitutable sub-systems in the LVTS (i.e., Tranches 1 and 2). Then, with the estimated model, we conduct counterfactual simulations to calculate the changes in participants' welfare when the LVTS is replaced by a real-time gross settlement system (RTGS), like Lynx (as an important part of the payments modernization initiative). The results show that, first, compared to the old system, Lynx has higher liquidity costs but is more secure, while the former is considered a more important factor by system participants. Second, when over 90% of current LVTS payments migrate to Lynx, there is an overall welfare gain; however, it maybe difficult to achieve such a high migration ratio in the new market equilibrium. Third, accounting for equilibrium adjustment, about a 75% service level improvement is needed to generate overall net economic benefits to participants. Among other things, adopting a liquidity savings mechanism and reducing risks in the new system could help achieve this improvement. Finally, the welfare changes are quite heterogeneous, especially between large and small participants.

Predicting the Demand for Central Bank Digital Currency: A Structural Analysis with Survey Data

This paper predicts households' demand for a central bank digital currency (CBDC) with different design attributes by applying a structural demand model to a unique Canadian survey dataset. CBDC and its close alternatives, cash and demand deposits, are viewed as product bundles of different attributes. I estimate households' preferences towards these attributes from how they allocate their liquid assets between cash and demand deposits. The estimated preferences are used to predict the demand for CBDC with a set of design attributes and quantify the impacts of CBDC design choices on CBDC demand. Under a baseline design for CBDC, the aggregate CBDC holdings out of households' liquid assets could range from 4 to 52%, depending on whether households would perceive CBDC to be closer to cash or deposits. I find that important design attributes include budgeting usefulness, anonymity, bundling of bank services and rate of return.

News-Driven International Credit Cycles

How does news about future economic fundamentals affect within-country and cross-country credit allocation? How effective is unconventional policy when financial crises are driven by unfulfilled favorable news? I study these questions by employing a two-sector, two-country macroeconomic model with a financial sector in which financial crises are associated with occasionally binding leverage constraints. In response to positive news on the valuation of nontraded sector capital that turns out to be incorrect at a later date, the model captures the patterns of financial flows and current account dynamics in Spain between 2000-2010, including the changes in the sectoral allocation of bank credit and movements in cross-country borrowing during the boom and the bust. When there are unconventional policies by a common authority in response to unfulfilled favorable news, liquidity injections perform better in ameliorating the downturn than direct assets purchases from the non-traded sector.

Best Before? Expiring Central Bank Digital Currency and Loss Recovery

This paper examines how the transmission of government portfolio risk arising from maturity operations depends on the stance of monetary/fiscal policy. Accounting for risk premia in the fiscal theory allows the government portfolio to affect the expected inflation, even in a frictionless economy. The effects of maturity rebalancing on expected inflation in the fiscal theory directly depend on the conditional nominal term premium, giving rise to an optimal debt maturity policy that is state dependent. In a calibrated macro-finance model, we demonstrate that maturity operations have sizable effects on expected inflation and output through our novel risk transmission mechanism.

Revising the Monetary Sovereignty Rationale for CBDCs

As currently articulated, the monetary sovereignty argument for central bank digital currencies (CBDCs) rests on the idea that without them, private and foreign digital monies could displace domestic currencies (a process called currency substitution), threatening the central bank's monetary policy and lender-of-last-resort (LLR) capabilities. This rationale provides a crucial but incomplete picture of what is at stake in terms of monetary sovereignty. This paper seeks to expand and enhance this picture in three ways. The first is by looking at the consequences of currency substitution that go beyond

the functions of a central bank—important considerations that have received less attention in public CBDC discussions. The second is by exploring key differences in monetary policy and LLR capabilities across currency-issuing countries or regions. More specifically, the paper highlights the variation in the degree of monetary sovereignty and the consequences that different countries face should they lose it. The third way is by assessing not only the implications but also the risks of currency substitution and showing how these are also likely to vary across countries. Contrasting the consequences and risks of substitution, the paper concludes by noting a potential inverse relationship between the impact and probability of losing monetary sovereignty.

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.**

Diego Zuniga (University of California, Los Angeles)
Organisateur: UR-BAP
Date: 21 janvier 2022

André Stenzel (University of Mannheim)
Organisateur: UR-CUR
Date: 21 janvier 2022

Ke Chao (Washington University in St. Louis)
Organisateur: UR-CEA
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Xian Jiang (Duke University)
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