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Bank of Canada Monthly Research Update

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

PUBLISHED PAPERS

In Press

Hagiu, Andrei and Hanna Halaburda, "Information and Two-Sided Platform Profits", International Journal of Industrial Organization

Forthcoming

Gagnon, Louis and Jonathan Witmer, "Distribution of ownership, short sale constraints, and market efficiency: Evidence from cross-listed stocks", Financial Management

Kartashova, Katya, "Private Equity Premium Puzzle Revisited", American Economic Review

WORKING PAPERS

Brogaard, Jonathan, Corey Garriott and Anna Pomeranets, "High-Frequency Trading Competition", Bank of Canada Working Paper 2014-19

Charbonneau, Karyne B., "Multiple Fixed Effects in Binary Response Panel Data Models", Bank of Canada Working Paper 2014-17

Giusti, Giovanni, Janet Hua Jiang and Yiping Xu, "Interest on Cash, Fundamental Value Process and Bubble Formation on Experimental Asset Markets", Bank of Canada Working Paper 2014-18

ABSTRACTS

Information and Two-Sided Platform Profits

We study the effect of different levels of information on two-sided platform profits| under monopoly and competition. One side (developers) is always informed about all prices and therefore forms responsive expectations. In contrast, we allow the other side (users) to be uninformed about prices charged to developers and to hold passive expectations. We show that platforms with more market power (monopoly) prefer facing more informed users. In contrast, platforms with less market power (i.e., facing more intense competition) have the opposite preference: they derive higher profits when users are less informed. The main reason is that price information leads user expectations to be more responsive and therefore amplifies the effect of price reductions. Platforms with more market power benefit because higher responsiveness leads to demand increases, which they are able to capture fully. Competing platforms are affected negatively because more information intensifies price competition.

Distribution of ownership, short sale constraints, and market efficiency: Evidence from cross-listed stocks

We investigate the interplay between the distribution of ownership, short sale constraints, and market efficiency from the perspective of US cross-listed stocks domiciled in Canada during the short sale ban of 2008. Using minute-by-minute data, we show that prices in the two markets remained surprisingly close to parity during the ban. However, we document a more significant rise in bid ask spreads in the US during this period, driven primarily by an increase on the ask side of the market due to the relative scarcity of long sellers in the US. This caused a delay in the speed at which prices were able to adjust to bad news in the US relative to Canada, and a slight premium in the US when prices were moving down.

Private Equity Premium Puzzle Revisited

This paper revisits the results of Moskowitz and Vissing-Jørgensen (2002) on returns to entrepreneurial investments in the United States. Following the authors' methodology and new data from the Survey of Consumer Finances (SCF), I find that the «private equity premium puzzle» does not survive the period of high public equity returns in the 1990s. The difference between private and public equity returns is positive and large period-by-period between 1999 and 2007. Whereas in the economy-wide downturn of the Great Recession, public and private equities performances are substantially closer.

High-Frequency Trading Competition

We analyze trading dynamics as successive high-frequency trading (HFT) firms begin to trade stocks in an equity market. Entrants compete with incumbents for volume, and there is crowding out. Earlier entry is associated with larger effects. After Passive HFT entry, incumbent spreads tighten. After Aggressive HFT entry, incumbent order flow loses informedness. Revenue data suggest entry reduces the profitability of HFT activity. The results show that part of the value of HFT comes from its competitiveness.

Multiple Fixed Effects in Binary Response Panel Data Models

This paper considers the adaptability of estimation methods for binary response panel data models to multiple fixed effects. It is motivated by the gravity equation used in international trade, where important papers such as Helpman, Melitz and Rubinstein (2008) use binary response models with fixed effects for both importing and exporting countries. Econometric theory has mostly focused on the estimation of single fixed effects models. This paper investigates whether existing methods can be modified to eliminate multiple fixed effects for two specific models in which the incidental parameter problem has already been solved in the presence of a single fixed effect. We find that it is possible to generalize the conditional maximum likelihood approach of Rasch (1960, 1961) to include two fixed effects for the logit. Surprisingly, despite many similarities with the logit, Manski's (1987) maximum score estimator for binary response models cannot be adapted to the presence of two fixed effects. Monte Carlo simulations show that the conditional logit estimator presented in this paper is less biased than other logit estimators without sacrificing on precision. This superiority is emphasized in small samples. An application to trade data using the logit estimator further highlights the importance of properly accounting for two fixed effects.

Interest on Cash, Fundamental Value Process and Bubble Formation on Experimental Asset Markets

We study the formation of price bubbles on experimental asset markets where cash earns interest. There are two main conclusions. The first is that paying positive interest on cash is ineffective in diminishing bubbles through the reducing-active-participation channel. The second is that the fundamental value generating process plays a critical role in the formation of asset bubbles in the laboratory. In particular, bubbles tend to occur whenever there is a conflict between the sign of the time trend of the fundamental value and the sign of the expected dividend payment. This explanation is consistent with all existing studies that analyze the role of fundamental value processes in inducing bubbles on experimental asset markets.