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FinTech Borrowers: Lax-Screening or Cream-Skimming?

Marco Di Maggio (Harvard University) and Vincent W. Yao (Georgia State University)

The financial markets have witnessed a disruptive force through the rise of Fintech companies which use technology to improve financial activities. Fintech firms have targeted the consumer credit market and their market share is predicted to rise to 20 per cent in the US by 2020. This paper seeks to find out if the Fintech lenders ease credit access for borrowers underserved by the traditional banking system? At the same time, the study seeks to find out if borrowers are able to improve their credit outcomes through a personal loan by a Fintech lender?

The authors address these questions using a unique individual level data providing detailed information about borrowers' credit histories and lenders' identities. They focus on personal loans for two key reasons. First, personal credit is one of the fastest-growing segments of the consumer credit market, and it has been the subject of particular interest to Fintech lenders. Second, personal loans are unsecured loans, which make them more easily comparable across lenders, because the contract is standard and the only terms are the maturity and the interest rate.

The study shows that Fintech borrowers tend to be younger, have higher income, exhibit a better credit history due to lower delinquency rates, live in richer neighbourhoods with higher house price appreciation, and are more likely to be professionals.

Most of the Fintech borrowers are less likely to have a mortgage, but more likely to still have to pay off their student loans. They tend to have a higher number of accounts and exhibit a higher credit utilization ratio, which suggest that they already have plenty of access to credit, and that one of the potential reasons to apply for a Fintech loan is to consolidate higher-rate credit card debts.

In all specifications, to absorb any time-varying credit demand shock at the local level, such as changes in house prices or in employment opportunities, or heterogeneous diffusion of these new lenders, the study controls for region-times-month fixed effects.

Additionally, borrowers who obtain a loan from a Fintech lender had significantly higher financing cost in the past. This suggests that borrowers who are discontent with the traditional banks are more likely to become new customers for the Fintech lenders. Overall though, the evidence strongly suggests that Fintech lenders are not after the marginal borrowers who are left underserved by the traditional banking system, nor do they seem to concentrate in areas where banks are less likely to operate, such as the ones most affected by the crisis.

The study shows that Fintech borrowers are significantly more likely to default and exhibit higher indebtedness than similar individuals borrowing from traditional financial institutions. Fintech borrowers tend to carry a significant credit card balance, and are more likely to consume the additional funds rather than using them to consolidate high-cost credit card debt. Overall, these findings suggest that Fintech lenders enable households with a particular desire for immediate consumption to finance their expenses and borrow beyond their means.

Helping Your Children Soar: Does Public Education Provision Affect Private Expenditure on Children? Evidence from China

Pei Gao, Yiqing Lü and Xin Zhou (all from New York University Shanghai)

Money spent by parents on their children's education is an indispensable part of child human capital development. This paper studies how parental investment in children responds to changes in public education provision. Based on transactions of China UnionPay debit and credit cards, which is like Visa and Mastercard but the only one of its kind in China, the authors identify two types of child-related expenditure: extra-curriculum training and other child support.

The study exploits an exogenous shock on public education provision brought by an administrative district merger in Shanghai, which is a central political decision, between the two districts of Jing'an and Zhabei. The merger allows Zhabei students to apply for high schools in Jing'an where more top-tier high schools are located. The merger equalized and, more importantly, improved the chance of Zhabei students who were initially disadvantaged to get into good public high schools.

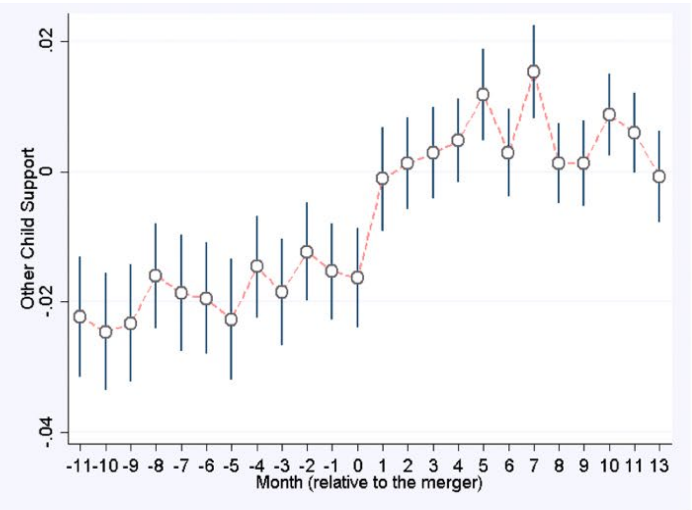
The authors construct a unique transaction-level dataset of China UnionPay debit and credit cards across three districts in Shanghai. The paper shows that cardholders actually increased their spending on children, in both extra-curriculum training and other child support, as a response to the improved educational opportunities. The effect is both immediate and persistent. In addition, the study further explores the heterogeneity in cardholders' response to the merger and finds that the effect is stronger for cardholders who have children of pre-high school age and for those who live closer to the old border but disappears for those who have adult children.

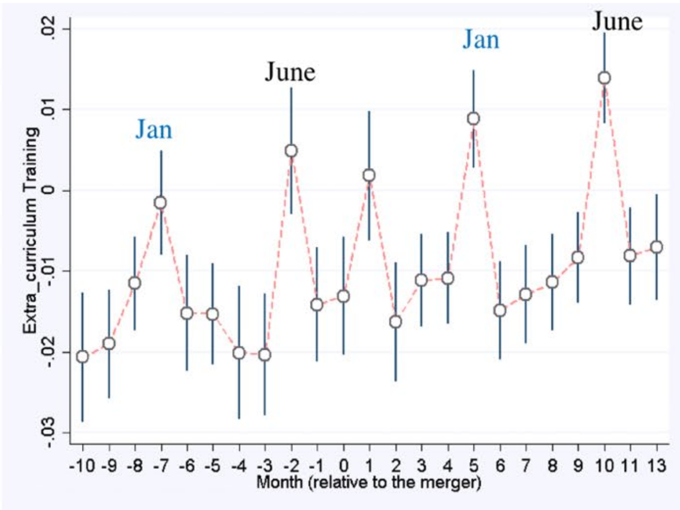
The paper discusses the potential alternative changes that may influence expenditure decisions, and rules out the possibility that the previous results are driven by increased competition and housing appreciation due to the merger. This paper fills gaps in the literature on the interplay between public education and child education and presents important policy implications. Many public education programs that have been widely studied in the literature usually require monetary subsidies on education provision. The district merger in Shanghai was a redistribution of educational resources based on a meritocratic exam across two districts; it thus does not require additional fiscal subsidies.

The study's findings suggest that without extra public spending, simply improving the perceived opportunity to get into good schools could stimulate private investment in children, thus supplementing the inadequacy in public investment.

The paper also opens interesting questions for future research. For example, cultural values often influence education decisions; it is, therefore, unclear whether the pattern of investment in children that is uncovered in this paper for Chinese parents is a feature that also exists in other societies.

Also, because this paper is silent on children's actual outcomes, more empirical research that can link child long-term outcomes to parental pecuniary investment in children will be vital to complete the understanding on the role of the interplay between public and parental investment in child human capital development.





Industrial Revolutions and Global Imbalances

Alexander Monge-Naranjo (Washington University in St. Louis), Kenichi Ueda (The University of Tokyo)

Large global imbalances – particularly the persistent current account surpluses of countries such as China, Japan and Germany – have fuelled heated debate in recent years. While some US politicians blame these countries' policies for the US' persistently large deficit, academics have explored various explanations for these imbalances – from surplus countries holding large official reserves as a form of self-insurance across business cycles, to the relative under-development of the domestic financial markets in surplus countries incentivising investment abroad.

Into that debate comes this paper, motivated by the desire to explain an interesting stylized fact that a look back at history swiftly surfaces: that alternating waves of global imbalances have been generated by sequential industrial revolutions. Newly industrialised countries often accumulate foreign assets as they undergo rapid growth, a pattern that has repeated itself several times since at least the middle of the 19th century.

Given that global imbalances have existed since the industrial revolution hit the United Kingdom, and that the current understanding of such imbalances do not explain episodes such as the US and UK's decades as the world's largest creditors, the paper's authors propose a new theoretical model to explain global imbalances over a longer time horizon, with implications for how today's imbalances are understood.

As co-author Alexander Monge-Naranjo put it: "We want to think: what should be the behaviour of global imbalances today as income distribution is changing? How should countries finance their growth and industrial revolutions?"

The authors first apply Lucas' (2004) sequential industrial revolution model to an open economy setup – to be more consistent with the real-world experience of countries that underwent industrial revolutions – combined with the hard currency (gold) constraint to limit consumption. In the initial period, when a country first begins industrialising, it faces the severe gold constraint to limit consumption. But as it grows more certain of receiving a higher income, it begins to save and invest more rapidly than before and more rapidly than other countries – including already industrialised ones.

International finance frictions are introduced into the model too, by assuming an incomplete market to insure against the timing of an industrial revolution – when it takes place – and the hard currency constraint for the purchase of consumption goods. This creates strong demand for the hard currency by a newly industrializing country, which does, under reasonable parameter values, result in needs for gold that exceed capital inflows. The result: a positive net foreign asset position, consistent with the stylized facts observed.

Their theoretical model is also able to predict that gold accumulation slows after the initial period. This is consistent with the historical observation that industrialised countries gradually hold a reduced share of global wealth, as another country begins to industrialise and accumulate wealth.

With this theory, the authors believe that they are proposing a development-stage view on optimal global imbalances, one that explains the Lucas Paradox on capital flows as well as the rises and falls in the external wealth of nations over history.

Premium for Heightened Uncertainty – Solving the FOMC puzzle

Grace Xing Hu (The University of Hong Kong), Jun Pan (Massachusetts Institute of Technology & ABFER), Jiang Wang (Massachusetts Institute of Technology), Haoxiang Zhu (Massachusetts Institute of Technology)

China This paper tackles the "FOMC puzzle" documented by Lucca and Moench (2015) – that the US stock market yields large excess returns in the 24-hour window before the Federal Open Market Committee's scheduled announcements, despite the absence of unusual risk. In fact, markets seemed to be "eerily calm" with relatively low volatility and trading volumes in those pre-FOMC windows, presenting the puzzle: why do investors not take advantage of this?

The authors hypothesise that the disproportionately large pre-FOMC return is a premium for heightened uncertainty in the market, an "uncertainty" (used by them in an intuitive sense) that is not captured by conventional risk measures.

They argue that FOMC days, being days on which market-moving information on US monetary policy is released, are days of heightened uncertainty. But their being pre-scheduled allows investors to trade well in advance, spreading the price impact over a relatively long window and rendering market trading data unreliable as a measure of underlying uncertainty. Then, as the FOMC announcement draws near, heightened uncertainty starts to resolve and the corresponding premium is realised – hence the large pre-FOMC price drift.

They then proceed to test two immediate implications of this hypothesis.

The first: that the FOMC is not unique. If the disproportionately large return is a premium for heightened uncertainty, it should occur in the lead up to other pre-scheduled macroeconomic releases perceived to have high market impact too. Indeed, they do find statistically significant patterns of abnormal pre-announcement return for macro releases such as total non-farm payrolls, GDP and the ISM Manufacturing index. The magnitudes of return are smaller – perhaps because these are seen as less impactful than FOMC – but are economically significant.

The second: that heightened uncertainty triggered by unexpectedly adverse market conditions yields a similar premium. To investigate this, the authors selected days with sudden spikes in the CBOE VIX index by choosing a constant cut-off value in the daily increase in VIX that yields an average of eight days of heightened VIX a calendar year, matching the frequency of FOMC days. Those eight days a year are marked by adverse market conditions, depressed aggregate stock prices and heightened uncertainty as investors anxiously await the next trading day. Again, they found disproportionately large returns on the S&P 500 index after sudden spikes in VIX over a period from January 1986 to May 2018, with average annualised returns for those eight days a year that were comparable to or larger than the average annualised return associated with the pre-FOMC drift.

These results, the authors say, provide compelling evidence that FOMC days are not unique. "When viewed from the perspective of heightened uncertainty, the FOMC puzzle is not really a puzzle but a manifestation of a risk and return trade-off. Not all trading days are created equal and some are inherently riskier than others. As long as we focus on attention on such high-impact days, either pre-scheduled or stochastically triggered, we will be confronted with this pattern of seemingly large abnormal returns, which are in fact the premium for heightened uncertainty," they say.

They conclude by shedding some light on the mechanism over which the FOMC risk premium arises. Examining the VIX build-up for a relatively long window prior to FOMC days, they find a statistically significant, sizable build-up in VIX that is followed by a significant reduction in VIX on the day of FOMC. Half of that subsequent reversal of VIX actually happens before the announcement.

The paper's results suggest that the underlying uncertainty varies with time, is driven by most deterministic and stochastic news arrivals, and that its relationship with risk premium can be complex. Hence, a model richer than a simple return-risk relationship using conventional risk measures may be needed to explain observed return patterns.

Taking a Big Bath upon a Sovereign Downgrade

Yupeng Lin (National University of Singapore), Bohui Zhang (CUHK Shenzhen), and Zilong Zhang (City University of Hong Kong)

This paper examines the accounting choice of downgraded companies when their sovereign debt gets downgraded. Following a sovereign rating downgrade, a firm with a rating equal to or higher than the sovereign rating is likely to be downgraded because firms' credit ratings are bound by the sovereign rating of its country of domicile. This rule used by the rating agencies is called the sovereign ceiling rule of credit ratings. Taking advantage of this rule, the authors examine the accounting choices of bound firms that are subject to a higher likelihood of being downgraded after a sovereign downgrade.

The authors say that there are several merits of using this setting to examine the "big bath accounting". First, bound firms' credit ratings are forced to be downgraded due to an arbitrary rule imposed by rating agencies upon a sovereign downgrade, not because these firms are fundamentally worse than other firms prior to the sovereign downgrade. In this respect, the negative shock on bound firms' credit ratings is exogenous. Second, the ceiling rule is a mechanical and external shock rather than an internal factor, to which the manager can attribute the poor earnings.

Further, since the bound firms are not fundamentally problematic, the earnings are likely to experience a reversal after a big bath. Managers can not only wrap up with a personal assurance that the company is well poised to capture opportunities when the market conditions turn more favourable, but also seize personal benefits from the performance improvement. Therefore, a sovereign downgrade and the ceiling rule provide managers with an opportunity to take an earnings bath.

The authors say that they conducted their tests by using a worldwide sample over the 1999-2013 period. Using a difference-indifferences approach, they show that the accounting choices of bound firms' managers primarily reflect the incentive of "taking a big bath" rather than an attempt to portray these firms as less troubled following a sovereign downgrade. That is, firms, which are likely to be downgraded due to the sovereign ceiling rule, report lower abnormal accruals following the downgraded events. The change is both statistically significant and economically relevant. For example, the estimated coefficient suggests that the return on assets for these firms have been manipulated downwards by 1.6% to 1.7%.

The study shows that bound firms reduce discretionary accruals after sovereign downgrades, are more likely to experience an earnings reversal subsequent to the accrual reduction, and will manage earnings up upon a subsequent sovereign rating upgrade. The authors also find that the reduction of discretionary accruals is more significant in countries with higher disclosure requirement and stronger shareholder protection, consistent with the notion that firms facing restraints of opportunistic disclosure behaviours are more likely to take advantage of peculiar negative shocks to conduct abnormal write-offs. Overall, the authors provide evidence that managers may strategically employ big bath accounting in response to negative economic shocks.

About ABFER

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The purposes of the Bureau include:

- to promote Asia-Pacific oriented financial and economic research at local, regional and international levels;
- to connect globally prominent academic researchers, practitioners and public policy decision-makers on Asia-Pacific related financial and economic issues;
- to enhance the research capabilities and development of strong clusters of finance and economic research groups in academic institutions and other institutions in Singapore and Asia-Pacific.

This Digest summarizes selected papers presented in the ABFER 7th Annual Conference which was held in May 2019 at Shangri-La's Rasa Sentosa Resort, Singapore. Past issues of the Digests are available here. More information on the conference can be found here.

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