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Capital gains taxation and funding for start-ups

资本利得税和创业资金

Alexander Edwards Maximilian
Todtenhaupt*

Background

- Start-up firms are an important source of innovation, productivity growth, and job creation
- Investor returns are largely generated in the form of capital gains realized in subsequent takeovers or after the initial public offering (IPO)
- Capital gains taxation is an important determinant of the cost
- Prior studies remain largely silent on how taxation affects entrepreneurs' financing and organizational form decisions
- One potential reason for the lack of empirical evidence is the limited availability of data on start-up firm financing, unavailable, private firms

Background

- Debate:
  - Proponents: Increase the after-tax investment returns and investment
  - Critics: place such an administrative burden that will not derive a substantial benefit
- Prior studies have not provided evidence on whether capital gains taxation affects the supply side of venture capital funding
  - Exists in less liquid private markets such as those for funding start-up firms

Main work

- A reduction in capital gains taxation on the amount of funding raised by start-up firms
- 2010 Small Business Jobs Act (2010 SBJA), which provided for a full exemption from federal taxation of capital gains realized on the sale of the shares of certain small businesses
- DID
- Crunchbase is an online platform that tracks venture capital financing and allows users to observe the firm-level funding volume for start-up firms in each round of financing
- The sample: 13,431 start-up firms and $218.5 billion

Conclusion

- The capital gains tax reduction introduced by the 2010 SBJA raised the amount of investment per funding round by 12%, additional funding $9.6 billion per year
- This effect is more pronounced in entrepreneurial firms with greater administrative capacity.
  - The presence of early-stage active investors
  - Advisory activity to other start-ups by the founders
  - At least one founder with a business degree
- A third of the benefit accrues to the investors and the remaining two thirds accrue to the issuing firm

Contributes

- This paper is the first, capital gains taxation and the cost of capital for small, pre-IPO start-up firms
- Closely related to Guenther and Willenborg (1999), the 1993 introduction of a 50% exemption from taxation of capital gains and document a increase in IPO issue prices
- Difference: Guenther and Willenborg (1999) firms going public, a liquid market with a large pool of investors. In our setting of private firms, market frictions are much higher
- The literature on early stage firms, start-up financing and supply side of venture capital

Credit and social unrest: Evidence from 1930s China ?

信用和社会动荡：来自20世纪30年代中国的证据

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Haikun Zhu[c]

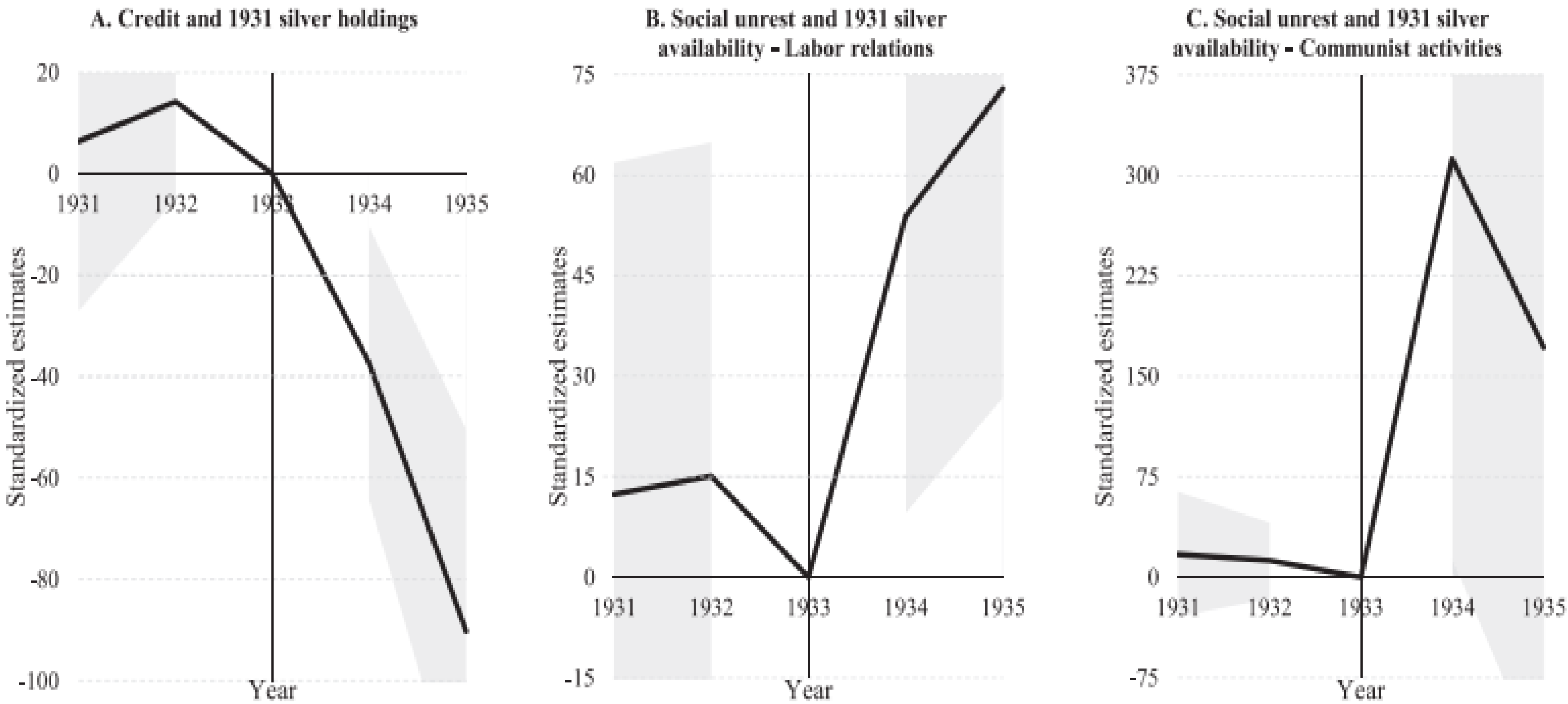
Motivation

- 1990s Asian crisis that capital outflow would lead to labor protests and political turmoil
- 2008 Great Recession fostered, credit, the global of anti-system movements
- China's recent deleveraging policy stirred unrest among its factory workers

- The underlying narrative: a credit contraction has a negative impact on the performance of firms, exacerbating labor relations and leading to social unrest

Research design

- Three key empirical challenges:
- First, causality can run both ways. Social unrest itself can worsen investment prospects, reducing output and leading to lower credit volumes. It is thus difficult to determine whether social unrest precedes or follows credit contractions
- Second, omitted variables. (i) separate credit supply (banks restrict credit) from credit demand (the firm does not seek credit), and (ii) control for drivers of social unrest related to firm-level credit and performance
- Third, social unrest has been associated with movements outside the political mainstream, whose ideological base is often vaguely delineated



1933年白银购买计划，白银价格提高，耗尽中国白银库存。银本位制，放贷能力与白银储备挂钩。因此，白银储备较低的银行很容易受到冲击，削减了信贷(图1(A))，劳工骚乱的增加(图1(B))，地下共产党的渗透(图1(C))。

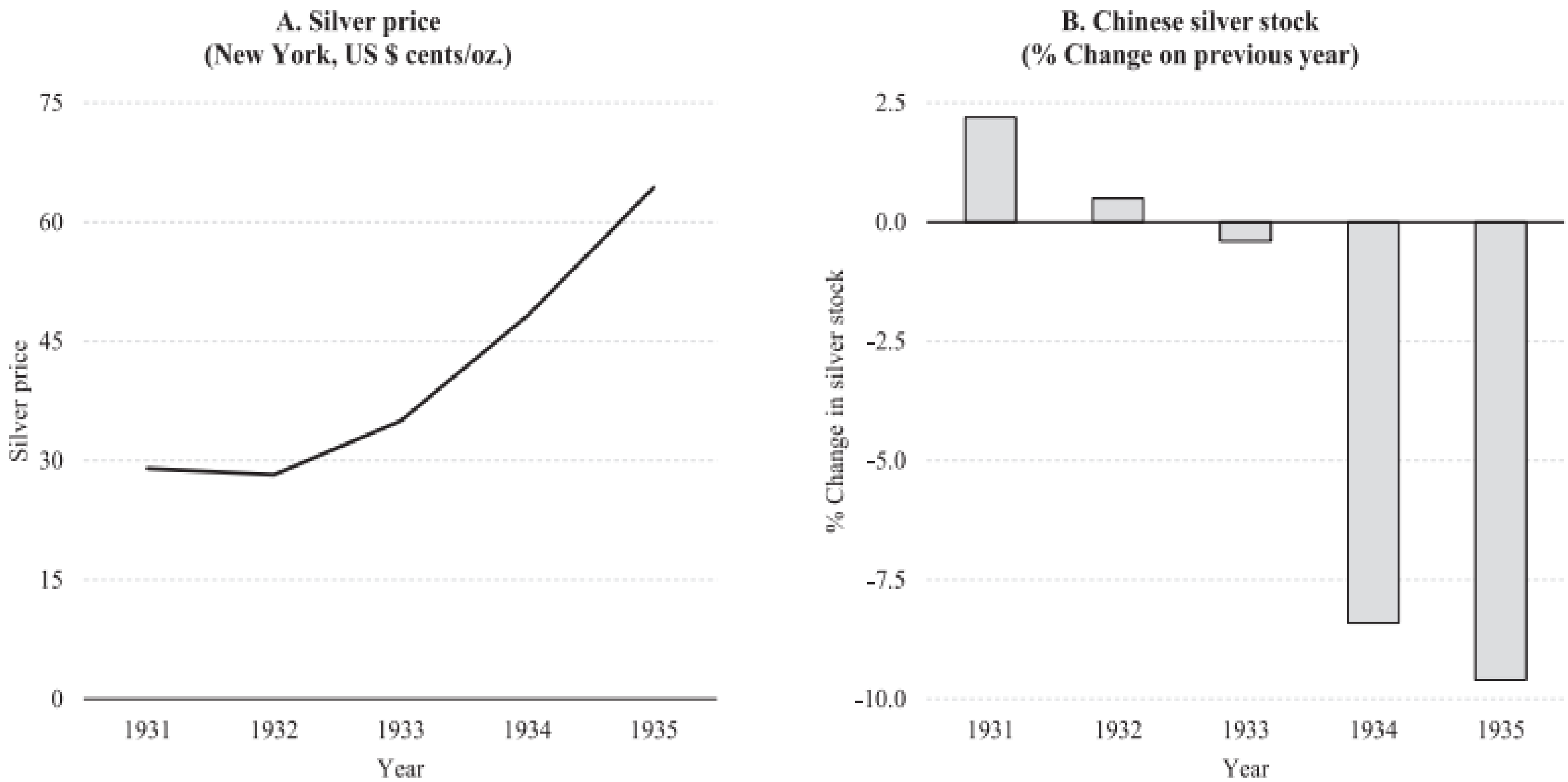


Fig. 2. Silver prices and changes in Chinese silver stock, 1931–1935. Panel A reports the silver price quotes in New York over the period 1931–35 (source: *Economy Xun Kan* (经济旬刊), Vol. 4, No. 13, p. 11). Panel B reports yearly changes in the Chinese stock of silver reserves (source: Rawski, 1989, pp. 394).

A：银价；B：储量

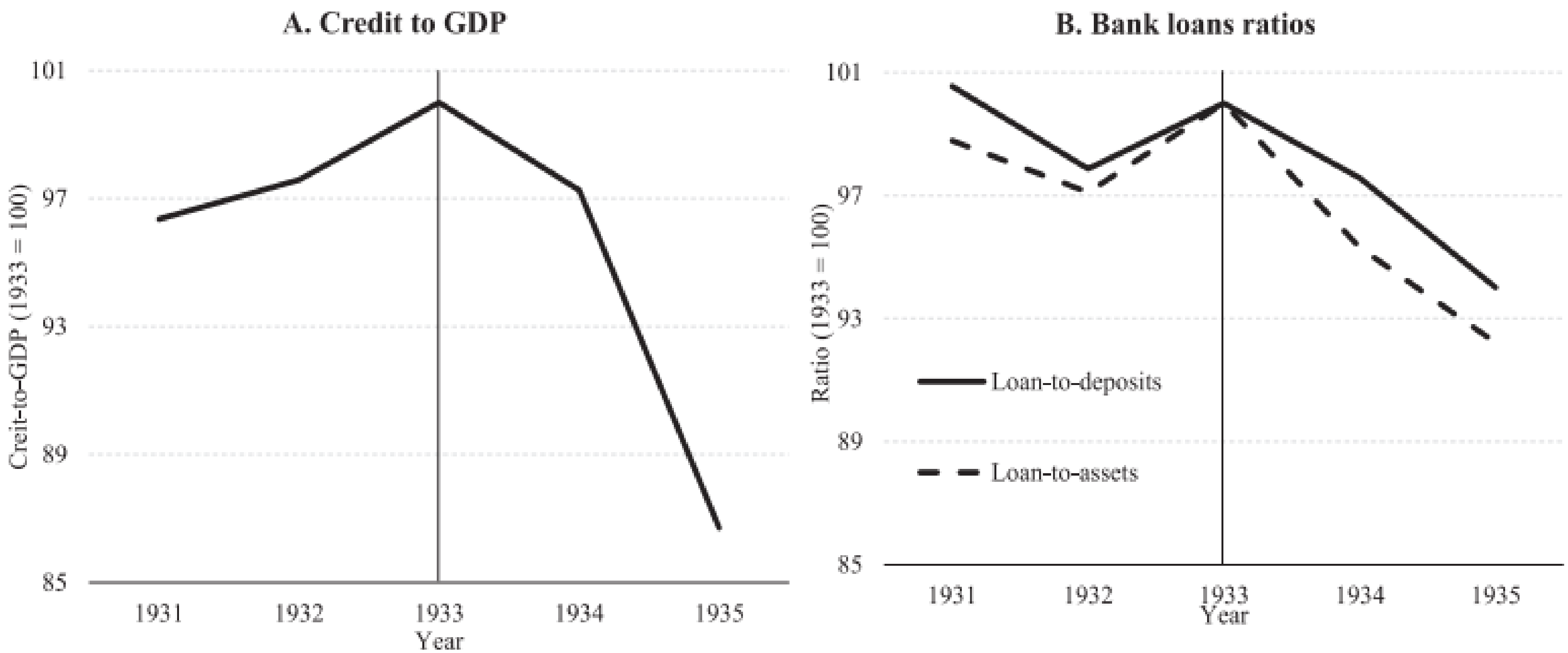


Fig. 3. Aggregate credit in China, 1931–1935. The graphs report measures of aggregate credit provision in the Republic of China over the sample period. Panel A plots the total credit-to-GDP ratio for the Republic of China, rescaled so as to take the value of 100 in 1933. Total credit is the aggregate of the loans data reported on bank balance sheets, used throughout; GDP is based on manufacturing output from factories (Brandt and Sargent, 1989; Table 5). Panel B plots two additional ratios, again for the Republic of China: total loans-to-deposits and total loans-to-assets. Total loans are obtained as the aggregate of the loans data reported on bank balance sheets, used throughout; and deposits and total assets data are retrieved from Cheng (2003, Appendix II).

Research design

- Address these challenges:
- First, the 1933 Silver Purchase program, undertaken for purely U.S. domestic reasons and independent of Chinese economic conditions, determines the direction of causality: from credit to social unrest
- Second, micro data help us isolate credit supply and control for potential omitted variables related to national and local economic conditions
- Third, the main anti-system movement in 1930s China, the Communist Party, had a well-defined social target : the working class, and in particular factory workers

Main work

- Social unrest: labor unrest intensity and Communist Party penetration
- Collect matched lender-borrower data, 1931–1935, document firm-level labor unrest episodes in three major Chinese cities (Nanjing, Shanghai, and Tianjin), as well as Communist Party penetration among workers at firms located in Shanghai

Conclusion

- First, Limited credit resulting from the Silver Purchase exacerbate labor relations and increasing the reach of the Communist Party
- Second, smaller reserves pools are related to a larger rise in labor unrest intensity(30%) and communist penetration (6%)
- Third, The effects are unlikely driven by omitted factors affecting East Asian economies in the 1930s
- Finally, Comparing industries exposed to versus isolated from international trade, similar effects in the two groups. An exchange rate channel is unlikely behind our results

Sophisticated investors and market efficiency: Evidence from a natural experiment

成熟的投资者和市场效率

Yong Chen[a,*]
, Bryan Kelly [b,c,d]
Wei Wu [a]

Motivation

- Information plays a key role for the efficiency of security markets and the real economy
- Institutional investors have become the dominant player in the US financial markets. Hedge funds, in particular, represent the arguably most sophisticated investors
- Address the questions:
  - How do sophisticated investors alter their behavior in response to changes of information environment?
  - How do their actions in turn affect market efficiency?

Motivation

- When information environment becomes murky,
- On the one hand, sophisticated investors will likely have a greater comparative advantage. They have greater incentive to acquire information and trade to substitute the lost information
- On the other hand, investors may reduce their information acquisition and trade less actively if they are unable to produce the lost information or if they face larger uncertainty concerning fundamental values of the traded assets

Main work

- Challenging task:

□ Reverse causality problem:

The activities of sophisticated investors can change firms' information environment. For example, institutional investors may demand that firms change their disclosure policies

- A natural experiment:

□ The exogenous reductions of sell-side analysts due to closures and mergers of brokerage firms

- Such closures and mergers are driven by adverse regulatory changes and unfavorable business conditions instead of by the prospects of the affected stocks

Conclusion

- First, after exogenous reductions of analyst coverage, stock price efficiency significantly worsens
- Second, sophisticated investors scale up information acquisition after coverage reductions
  - Hedge funds increase their participation in earnings conference calls of firms
  - EDGAR internet search traffic, the search volume increases significantly. IP addresses
- Third, Hedge funds exploit increase information advantage and trade aggressively
- Finally, high levels of hedge fund participation helps restore the impaired efficiency

Contributions

- First, we go beyond the performance of hedge funds and measure the changes in overall market efficiency
- Second, our results are in accordance with the theoretical prediction of a substitution effect between the acquisition of private information and the supply of public information. Our paper is the first to show such a substitution effect empirically in a causal framework
- Increase the supply of public information can potentially crowd out sophisticated investors' acquisition of private information
- Wu (2017), corporate insiders, unlikely sophisticated investors, access to private information at no cost. The trading volume of insiders is much smaller, substantial impacts on market efficiency

Activism and empire building

激进主义和帝国建设

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Background

- We identify wasteful M&A spending as a specific firm inefficiency that activist intervention appears to correct.
- Shareholder activism may possibly represent a more efficient mechanism for disciplining empire builders

Data and sample

- Hedge fund activism: hand-collected from regulatory filings, extending the sample in Gantchev (2013) to 242 activists
- 1995–2011, 1732 firm-years, representing an average activism frequency of 1.77%
- Acquisition and divestiture activity of sample firms: five years before through five years after the launch of an activist campaign
- Cash and stock acquisitions; the size; diversifying

Main work

- Acquisitions: a third less in the three years, 2.3–2.6% higher announcement returns
- Divestitures: 28% more in the three years, 32% more (large divestitures); 0.9–1.8% higher announcement returns
- Channel 1: CEO turnover
  - CEOs are disciplined for failed M&A decisions, value-reducing M&A
- Channel 2: Compensation-based incentives
  - Increase CEO's pay-for-performance sensitivity(PPS) , fewer acquisitions and greater number of divestitures
- Channel 3: Bringing in new board members
  - Two times less likely to undertake cash and stock acquisitions, and 85% more likely divestitures

Contribution & Conclusion

- As a result of activist intervention, firms conduct fewer acquisitions, become more selective in choosing acquisition targets, and engage in more divestitures that refocus firm operations
- Their activism acquisitions and divestitures are associated with positive shareholder announcement returns
- Hedge fund activism enhances firm value
- Wu and Chung (2019)is similar, they find that following activism, fewer and smaller acquisitions. CEO and director turnover. Differences: do not consider divestitures and changes in CEO compensation

Board structure, director expertise, and advisory role of outside directors

董事会结构、董事专业知识和外部董事的顾问角色

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Background

- The effects of board structure and director expertise on firm performance and policies are central questions in the literature on boards of directors. Evidence on these questions, however, is mixed (add value to firms; a negative relation; no significant relation)

- We have limited evidence:
  - The channels through which director expertise affects firm value
  - The circumstances under which firms can benefit from the advisory role of directors with relevant expertise without losing monitoring efficiency

Main work

- In October 2000, U.S. Congress granted Permanent Normal Trade Relations (PNTR) as an exogenous source of variation in board structure, how such a shock affects U.S. firms' board structure
- U.S. firms entering the Chinese market face challenges due to differences in language, legal and political landscape, and customer preferences
- Appoint directors with China experience, For example, mergers and acquisitions (M&As), joint ventures (JVs), or strategic alliances (SAs)
- DATA:
- 14,199 firm-year (17,952 outside director)

  from 1996 to 2011

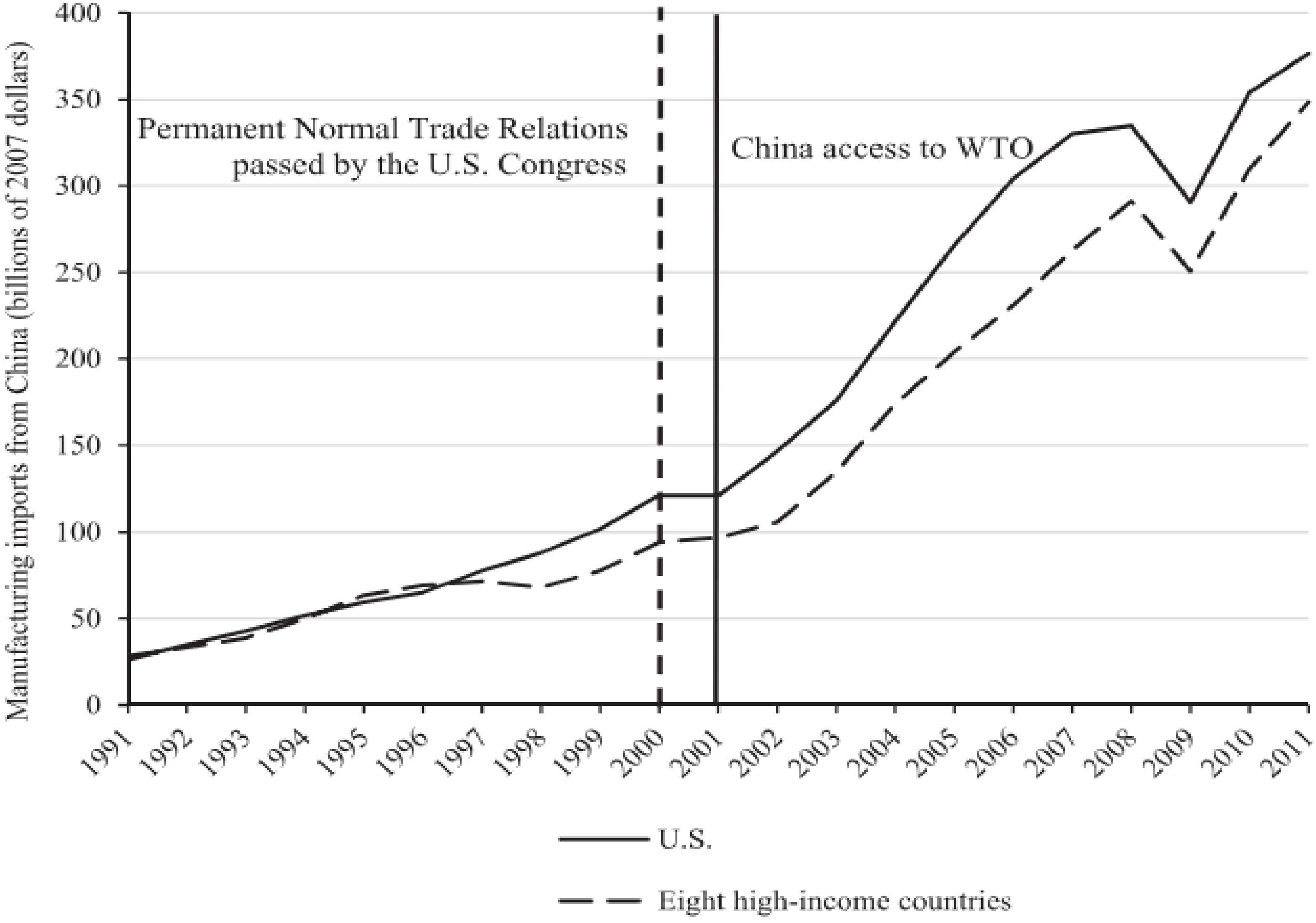


Fig. 1. Imports from China by manufacturing firms in the U.S. and eight other high-income countries has increased substantially since 2001

Conclusion

- The grant eliminated investment uncertainty in China faced by U.S. firms and thereby increased the incentives of U.S. firms to exploit China's cheap labor and growing markets.
- Perform a value-enhancing advisory role by helping U.S. firms select suitable Chinese targets/partners, reducing information asymmetry, and facilitating resource integration between U.S. and Chinese firms.
- A higher proportion of outside directors with China experience and Reside in the U.S. (Resident directors) realize higher announcement returns and better long-term operating performance

Contribution

- First, previous focus on negative effects such as the contraction in manufacturing employment and the decline in firms' profitability and investment. The only studies, Pierce and Schott, (2016) and Antràs et al. (2017): new opportunities. We: changes in U.S. firms' board structure following the passage of PNTR
- Second, Adds to the literature on the advisory functions performed by outside directors with different skill sets such as financial expertise, industry experience, foreign experience, acquisition experience, and legal expertise
- Third, previous: laws, such as the Sarbanes-Oxley. We: trade policy

All the president's friends: Political access and firm value ?

所有总统的朋友：政治访问和公司价值

Jeffrey R. Brown [a,b]
Jiekun Huang [a,*]

Motivation

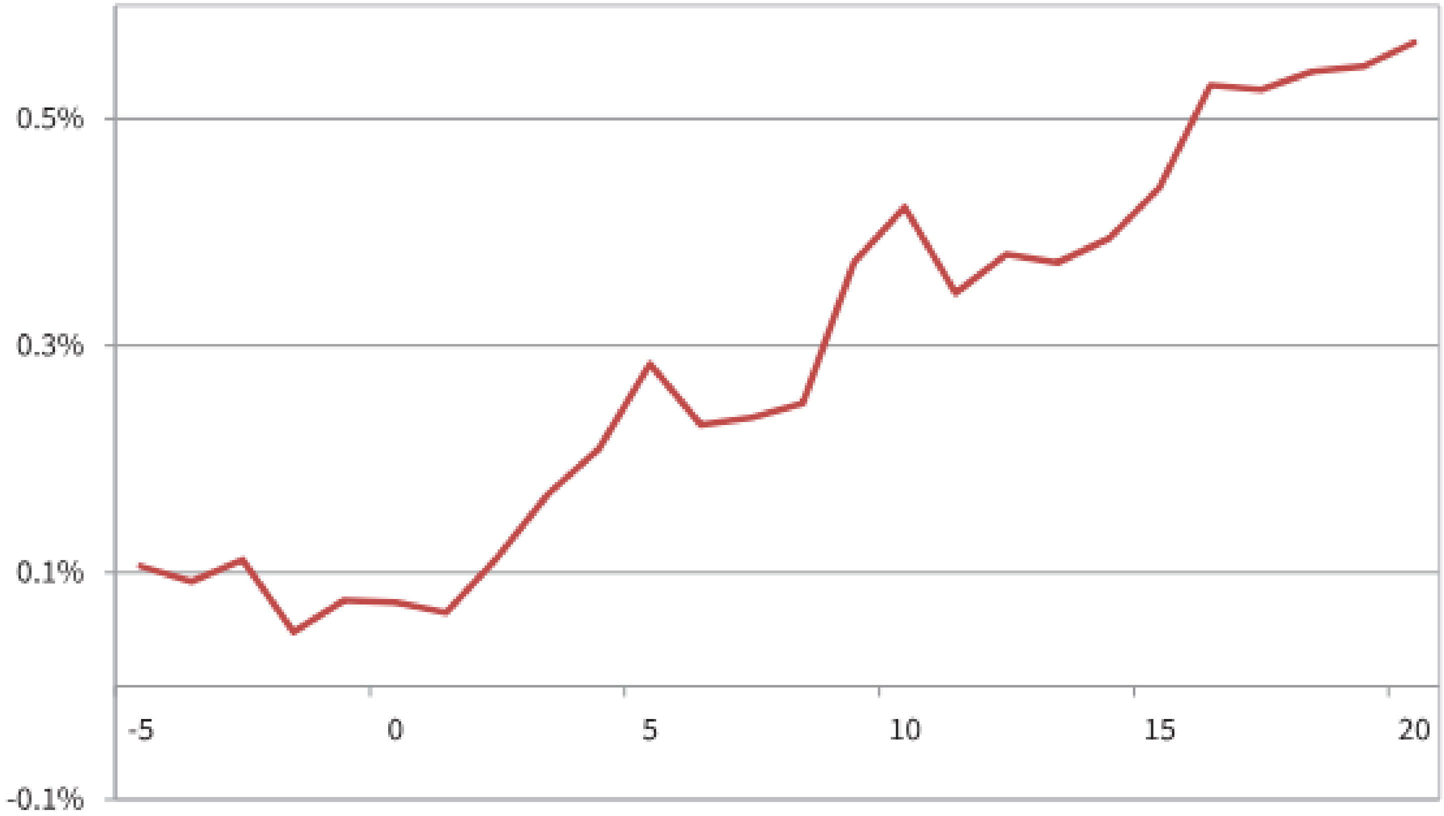
- Access to political decision-makers is a scarce resource, limited time, interact with a limited set of people
- Governments affect economic activities not only through regulations but also by playing the role of customers, financiers, and partners of firms
- Benefit from gaining access to competitive advantage
- Two fundamental questions:
  - First, how prevalent is political access and what are the characteristics of firms with access to politicians?
  - Second, does political access increase firm value, and if so, through what channels?

Main work

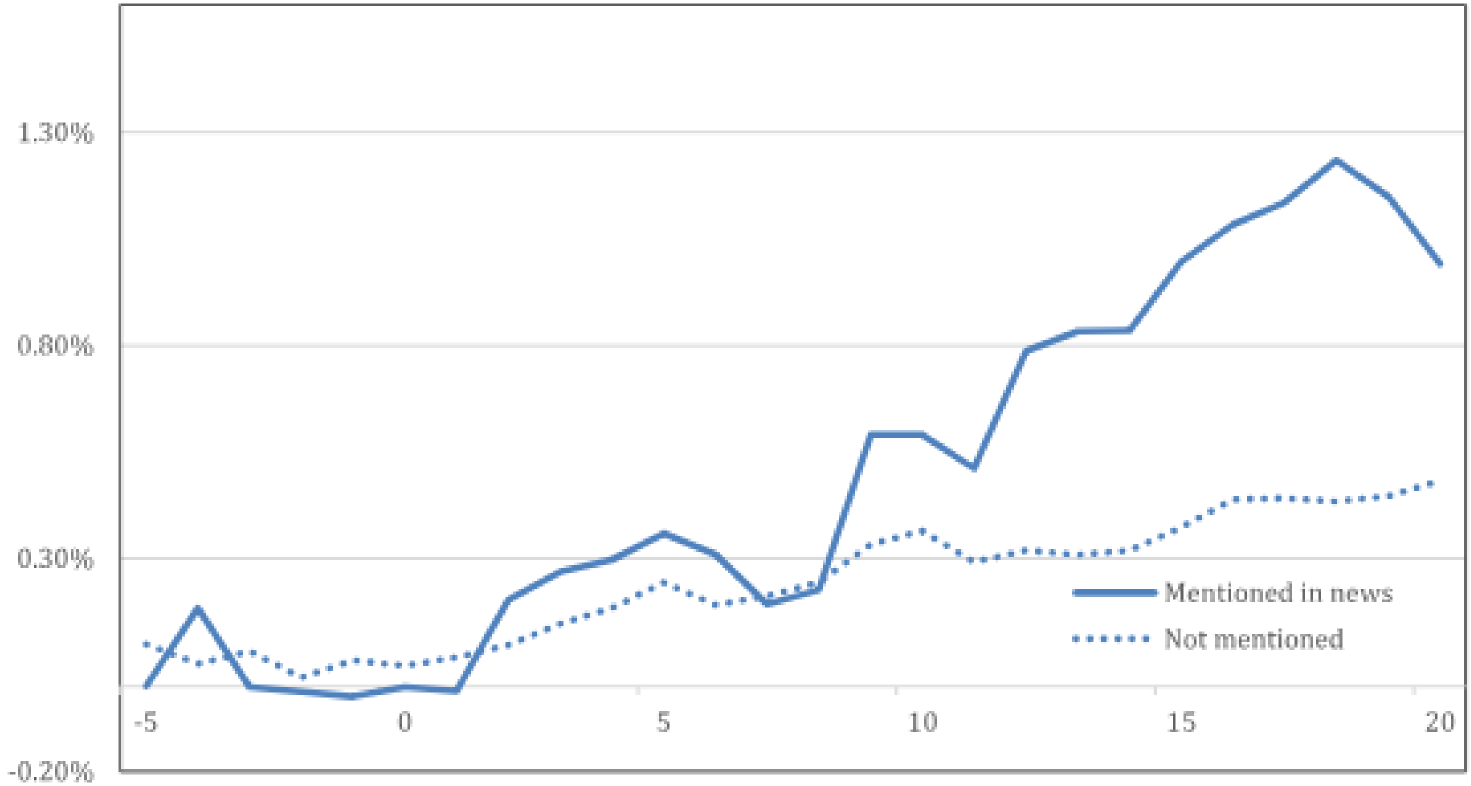
- A shock to political access: Donald J. Trump as the 45th president of the US
- Using a data set of White House visitor logs, we identify top corporate executives of S&P 1500 firms, face-to-face meetings, January 2009 through December 2015, 2,401 meetings
- Face-to-face meetings enable direct exchange of information and the building of mutual trust and understanding.
- We cannot directly observe those other forms(e.g., phone calls, emails, etc.), White House visits as a proxy

Conclusion

- 10.7% visit the White House, 40% of the total market capitalization
- Political access is positively correlated with firms' contributions to politicians' election campaigns, positive abnormal stock returns both around the visits and the release of the visitor logs, lower stock returns following the release of the election result, the negative returns for firms with close ties to the administration
- Two ways:
  - Government procurement of goods and services accounts for over 10% of the GDP
  - Seeking regulatory relief and influence political decision-making(as measured by the tone of regulatory news)
- Political access is of significant value to corporations



- Fig. 1. Cumulative abnormal returns around corporate executives' White House visits.
- We consider a window from 5 days before to 20 days after the date of the visit (day 0)



➢ Fig. 2. Cumulative abnormal returns around corporate executives' White House visits: subsamples partitioned by whether the visits are mentioned in the media

Corporate bond mutual funds and asset fire sales

公司债券共同基金和资产贱卖

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Saeid Hoseinzade [c]
Sean Seunghun Shin [d]
Hassan Tehranian [e]

Background

- Corporate bond mutual funds (CBMFs) ,major players

- In contrast to the traditional players, such as insurance companies and pension funds, corporate bond funds engage in liquidity transformation, i.e., they invest in relatively illiquid assets, and could make CBMFs vulnerable to asset fire sales when they face large redemptions

Motivation

- Challenging because of endogeneity issues inherent
- investor redemptions ? unrelated to the fundamental?
- The common assumption is that fund managers could choose to sell bonds with negative outlooks that are expected to generate lower returns in subsequent periods
- If such valuation-driven sales are misspecified as flow-driven, subsequent under-performance might be erroneously attributed to fire sales

Main work

- The key idea in identification strategy is to control for any time-varying firm-level information enabling us to distinguish between redemption-induced price declines and fundamentals-driven price declines
- Bonds of the same firm that share the same fundamentals but with differing fund outflows
- Data: CBMFs, 2002 Q3 through 2014 Q4
- Two approaches:
- First, issuer-time fixed effects, absorb all unobservable time-varying information regarding the fundamentals
- Second, DID
  - treated group: bonds that are subject to extreme sell-offs
  - control group: bonds of the same issuers, credit ratings, seniority, and bond option features with similar maturities but that are held by funds that do not experience significant outflows

Conclusion

- Redemptions from CBMFs do not lead to asset fire sales. The opposite is true for equity funds (Coval and Stafford, 2007)
- CBMFs hold a significant portion of their portfolios in very liquid asset classes: cash and government bonds. CBMFs use these liquid assets to cushion against redemptions.
  - For example: For every 1% of investor outflows, funds'holdings in cash and non-corporate bonds decrease by 1.81% and 0.99%, whereas their corporate bond holdings decrease by only 0.84%
- Equity funds, by contrast, hold only small liquid cushions in the form of cash. They must sell equities in large volumes, which plausibly leads to equity fire sales
- Extreme liquidity shortfalls, rather limited, 1.1%

Contribution

- Implications for regulators and policy makers:
- The SEC proposed new liquidity management rules for mutual funds. Disclose asset illiquidity while maintaining minimum holdings to prevent disruption of financial markets
- Extreme liquidity shortfalls account for only a small portion of the CBMF industry, i.e., on average 2.2% of CBMF funds and 1.1% of corporate bond holdings. The mandatory cash holdings requirement will hurt fund performance. It can also lead to distort the risk-taking incentives of asset managers.
- Examining in future research the net benefits of such policies to overall financial stability could be of interest

When low beats high: Riding the sales seasonality premium

以低胜高:利用销售季节性溢价

Gustavo Grullon [a, *]
Yamil Kaba [a]
Alexander Núnez-Torres [b, *]

Background

- The popular restaurant chain Denny's generates approximately 25% of its annual sales each quarter, showing essentially stable sales throughout the year

- In contrast, the tax service provider H&R Block generates 68% of its sales during tax season and only 7% during its low season

Data and methodology

- 1,509,794 firm-month observations and 14,008 firms over the period 1970 to 2017
- SEA to measure sales seasonality, the sales in quarter q of year t scaled by the annual sales in year t:

$$SEA_{qt} = SALES_{qt} / ANNUALSALES_t .$$

- steady sales: 25%
- extremely seasonal: above 25% during their high seasons and below 25% during their low seasons

Conclusion

- Counter seasonal patterns in stock returns: low-sales season firms tend to significantly outperform high-sales season firms
- Buying low-season stocks and shorting high-season stocks generates an annual alpha of 8.4%. This long-short spread remains basically unaffected even after controlling for Fama and French's (2015) five factors
- Strengthened over time:

  alpha: 9%, 1978–1987 ; 14.52%, 2008–2017
- These alphas result primarily from seasonal fluctuations in firms' fundamentals

Conclusion

- This seasonal effect has a relatively high Sharpe ratio and occurs independently of seasonal anomalies
- Using Fama and MacBeth (1973) regressions, we show that sales seasonality is a crucial determinant. Even after controlling for other factors, the coefficient of sales seasonality remains significant, especially large firms
- Economic channels may explain our main findings
  - First, the predictions of real options theories
  - Second, leverage, through which seasonal patterns in financing policies can generate time variation in stock returns
  - Third, time variation in the level of investors' attention

Does the lack of financial stability impair the transmission of monetary policy?

金融稳定性的缺乏会影响货币政策的传到吗？

Viral V. Acharya [a]
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Sascha Steffen [c,*]
Daniel Teichmann [d]

Background

- The introduction of the full allotment of liquidity by the European Central Bank (ECB) in October 2008 global financial crisis
- After the default of Lehman Brothers in September 2008, the interbank markets became severely stressed
- On October 8, 2008, the ECB main refinancing operations (MRO)

Motivation

- Monetary policy impacts the supply of bank credit
- We know very little about how monetary policy affects the market for corporate deposits. The main questions we try to address in this paper:
  - Does monetary policy transmit equally to deposit and loan rates?
  - Can the transmission of monetary policy still be impaired even if central banks provide unlimited short term liquidity to banks?
  - What are the implications for customers of banks, both lenders (i.e., depositors) and borrowers?

Main work and Conclusion

- We investigate the transmission of central bank liquidity to bank deposits and loan spreads in Europe over the period from January 2006 to June 2010
- Central bank liquidity does not translate into lower loan spreads for high-risk banks beyond one year
- This adversely affects the balance sheets of high-risk bank borrowers, leading to lower payouts, lower capital expenditures, and lower employment
- Overall, Banks' capital constraints at the time of an easing of monetary policy pose a challenge to the effectiveness of the bank-lending channel and the central bank's lender of last resort function

Strategic trading and unobservable information acquisition

战略交易和不可观察的信息获取

Snehal Banerjee
Bradyn Breon-Drish*

Background

- Kyle (1985), is foundational for understanding how markets incorporate private information. How informed investors trade strategically on their private information
- The strategic trader is endowed with private information before trading begins, instead of acquiring it at a time of her choosing
- The value of acquiring private information can change over time. Information is more valuable when fundamental uncertainty is higher (if uninformed, noise trading increase)

Main work

- To study this behavior, we extend the continuous-time Kyle (1985) framework to allow for unobservable, costly information acquisition.
- Investors optimize not only how they trade on their private information, but also when they acquire such information

Conclusion

- When the trader dynamically controls the precision of a flow of information, the optimal precision evolves stochastically and increases with market liquidity
- Because the trader exploits her information gradually, the equilibrium price impact and market uncertainty are unaffected by her rate of acquisition
- If she pays a fixed cost to acquire "lumpy" information at a time of her choosing, the market can break down: we show that no equilibria exist with endogenous information acquisition
- Our analysis suggests caution when applying insights from standard strategic trading models to settings with information acquisition

Credit migration and covered interest rate parity

信贷迁移和抛补利率平价

Gordon Y. Liao

抛补利率平价

假如日元年利率1%，人民币年利率5%
从日本银行借日元换成人民币存到中国银行

（以1%的成本获得5%的收益，承担汇率波动的风险）

是否能无风险套利（不承担汇率波动风险）？

↓

假设1：无交易成本　　　假设2：资金自由流动

↓

不存在无风险套利的机会

↓

利率和汇率之间存在一种关系 → 抛补利率平价（导致没有人能无风险套利）

抛补利率平价

无风险：锁定未来汇率

远期汇率F(forward)　　　即期汇率S(spot)

S：15日元/人民币

今天借1500日元，一年后应还1515日元：1500*（1+1%）

今天兑换100人民币（1500/15）

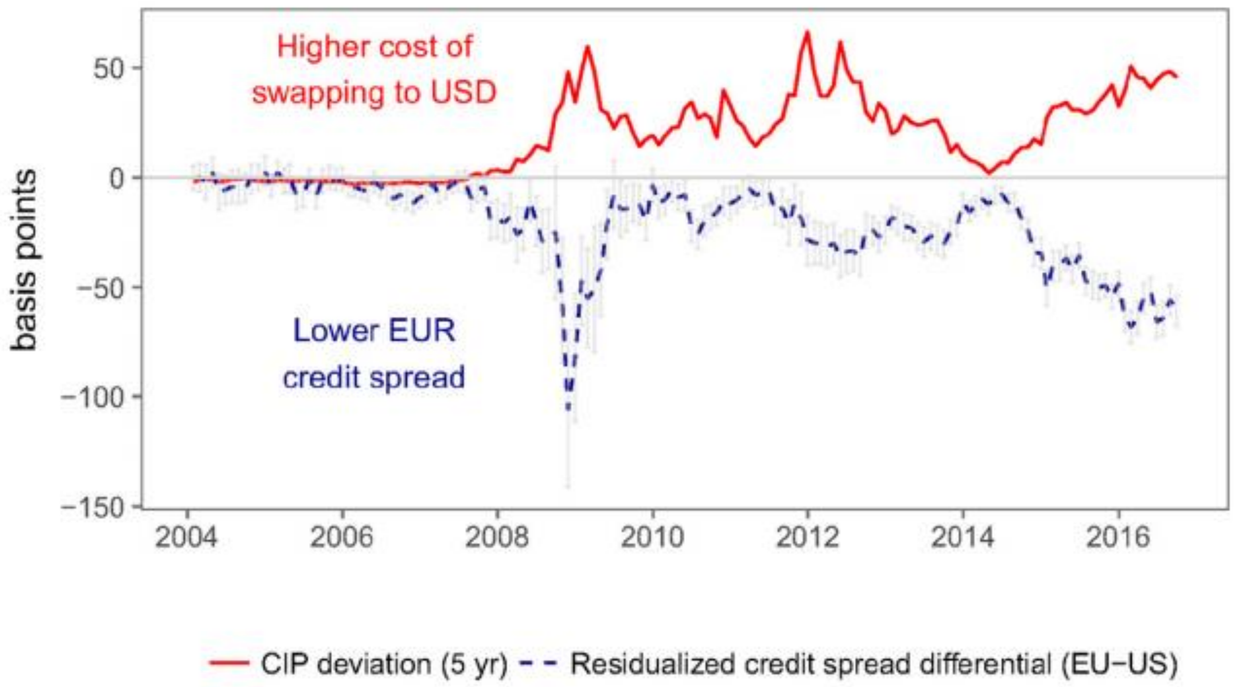
今天将100人民币存入中国银行，一年后应得人民币105元：100*（1+5%）

F：14.43日元/人民币（今天锁定一年后） 105*F=1515

d(domestic)国内； f(foreign)国外

$$X \times (1 + i_f) = \frac{X}{S_{f/d}} \times (1 + i_d) \times F$$

Background



- Fig. 1. Credit spread differential and CIP deviation between EUR and USD before the GFC: 0; Since 2008, spreads have been large; 2016: 70 basis points
- Research linking this pricing anomaly to the quantity of arbitrage capital and the behaviors of firms and households has been limited

Abstract

- This paper examines the joint determination of deviations in long-term covered interest rate parity and differences in the credit spread of bonds of similar risk but different currency denomination
- These two pricing anomalies are highly aligned in both the time series and the cross-section of currencies
- The sum of these two pricing deviations—the corporate basis—represents the currency-hedged borrowing cost difference between currency regions and explains up to a third of the variation in the aggregate corporate debt issuance flow
- Arbitrage aimed at exploiting one type of security anomaly can give rise to the other

The term structure and inflation uncertainty

期限结构和通胀的不确定性

Tomas Breach [a]
Stefania D'Amico [b,*]
Athanasios Orphanides [c]

Motivation

- 通胀不确定性

　　指基于目前的可得信息，无法对未来通胀水平进行准确识别和判断的状况。通货膨胀的未来变化分为可预测部分和不可预测部分，通胀不确定性包含了通胀的不可预测部分，从统计学来看它是通货膨胀不可预测部分的方差。 通胀不确定性是一个不可观测的变量， 它只能通过模型处理或者对预测数据进行调查的方法而获取。通胀不确定性和波动性是两个不同的概念

- Inflation uncertainty should be an important source of risk for nominal bonds.
- There is no empirical term structure model that explicitly accounts for variations in perceived inflation uncertainty in the estimation and decomposition of the nominal term structure
- The aim of this paper is to fill this gap

Abstract

- To assess the importance of inflation risk for nominal Treasury yields, a novel quadratic term structure model with time-varying inflation risk is estimated using survey-based inflation uncertainty
- The resulting yield decomposition captures very diverse macroeconomic dynamics of inflation and real risk premiums and generates sensible high-frequency estimates of expected inflation and real short rates over a long sample
- The explicit link between the model-implied factors and macro fundamentals reveals that short- but not long-run fluctuations are unspanned by yields, consistent with an interest rate policy unresponsive to transient inflation shocks

Is conflicted investment advice better than no advice?

有矛盾的投资建议比没有好吗?

John Chalmers [a]
Jonathan Reuter [b,c,*]

Abstract

- The benefit of investment advice depends on the quality of advice and the investor's counterfactual portfolio
- We use changes in the Oregon University System Optional Retirement Plan to highlight the impact of plan design on the counterfactual portfolios of advice seekers
- When brokers are available and target date funds (TDFs) are not, brokers help participants with high predicted demand for advice bear market risk, but they recommend higher-commission options
- When brokers are removed and TDFs are added, new high-predicted-demand participants primarily invest in TDFs, which offer similar market risk but higher Sharpe ratios than the broker-advised portfolios within our sample

Thank You