

# 摘要汇报 JF 2021(03)

卫夏利

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2. Banking on Deposits: Maturity transformation without Interest Rate Risk
3. Monetary Policy and Reaching for Income
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5. Fire-Sale Spillovers and Systemic Risk
6. Leveraged Funds and the Shadow Cost of Leverage Constraints
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8. Who Wears the Pants? Gender Identity Norms and Intrahousehold Financial Decision-Making
9. The Economics of Hedge Fund Startups: Theory and Empirical Evidence
10. Trading Costs and Informational Efficiency
11. For Richer, for Poorer: Bankers' Liability and Bank Risk in New England, 1867 to 1880



1. 国外安全资产需求和美元汇率
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# Foreign Safe Asset Demand and the Dollar Exchange Rate

## 1. 国外安全资产需求和美元汇率



# Abstract

- U.S. dollar's valuation  
in FX markets links  convenience yield
- **inferred** from the Treasury basis, the yield gap between U.S. government and currency-hedged foreign government bonds.
- a **widening of the basis** → **dollar**: appreciation depreciation
- empirical results

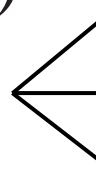


# Content

**Data:** G10 countries; starts in 1988(U.S/U.K.; from 1970)

- spot exchange rates
- forward exchange rates
- pairs of government bond yields

**Method**(Euler equation(5+1)):

- univariate regressions
  - a decrease in the basis coincides with an appreciation of the dollar
- VAR analysis(decompose)
  - dollar exchange rate variation  convenience yield components
  - interest rate components
  - risk premium components

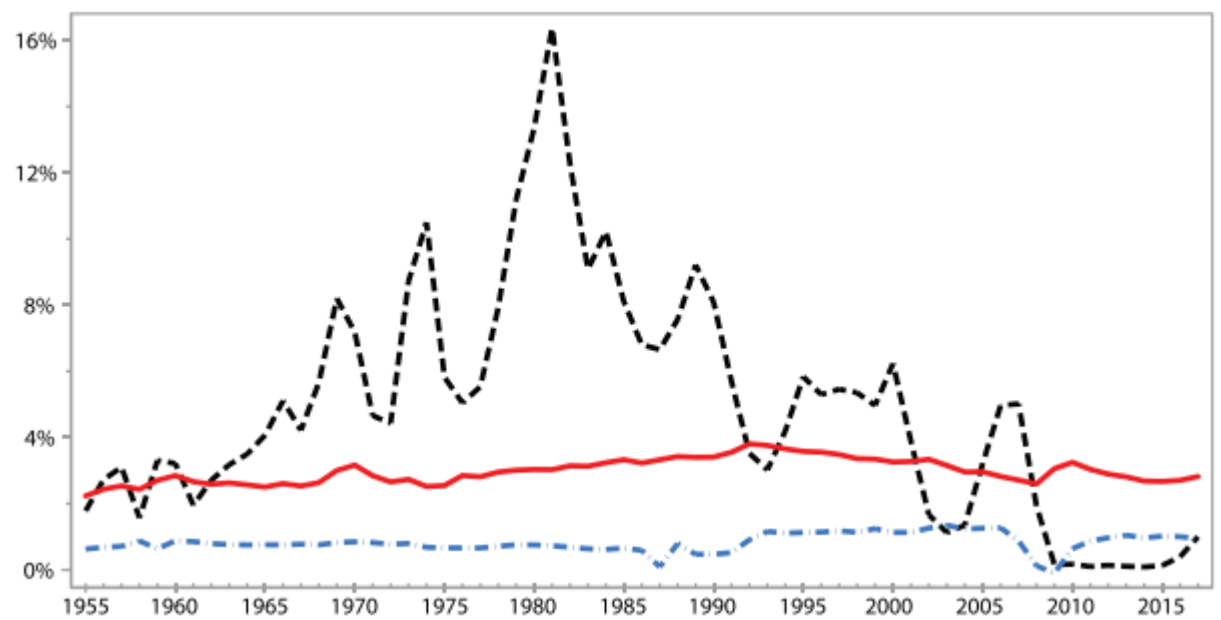


# Banking on Deposits: Maturity transformation without Interest Rate Risk

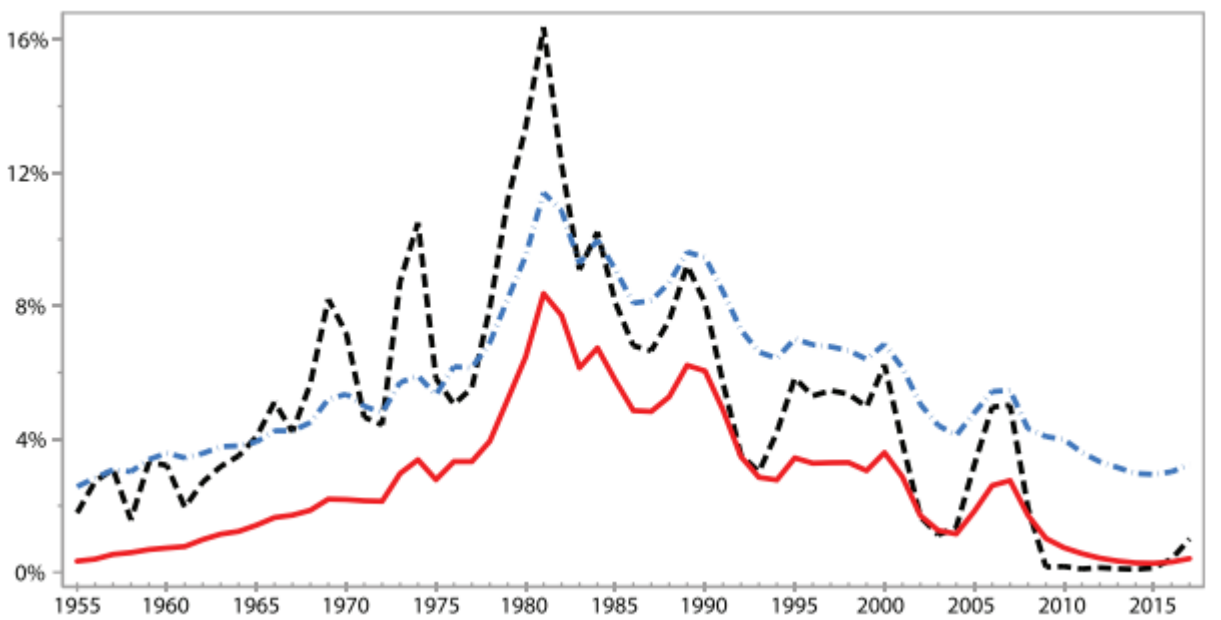
## 2. 银行存款业务：无利率风险的期限转换



## 2. 银行存款业务：无利率风险的期限转换



- Fed funds rate
- Net interest margin (NIM)
- · - Return on assets (ROA)

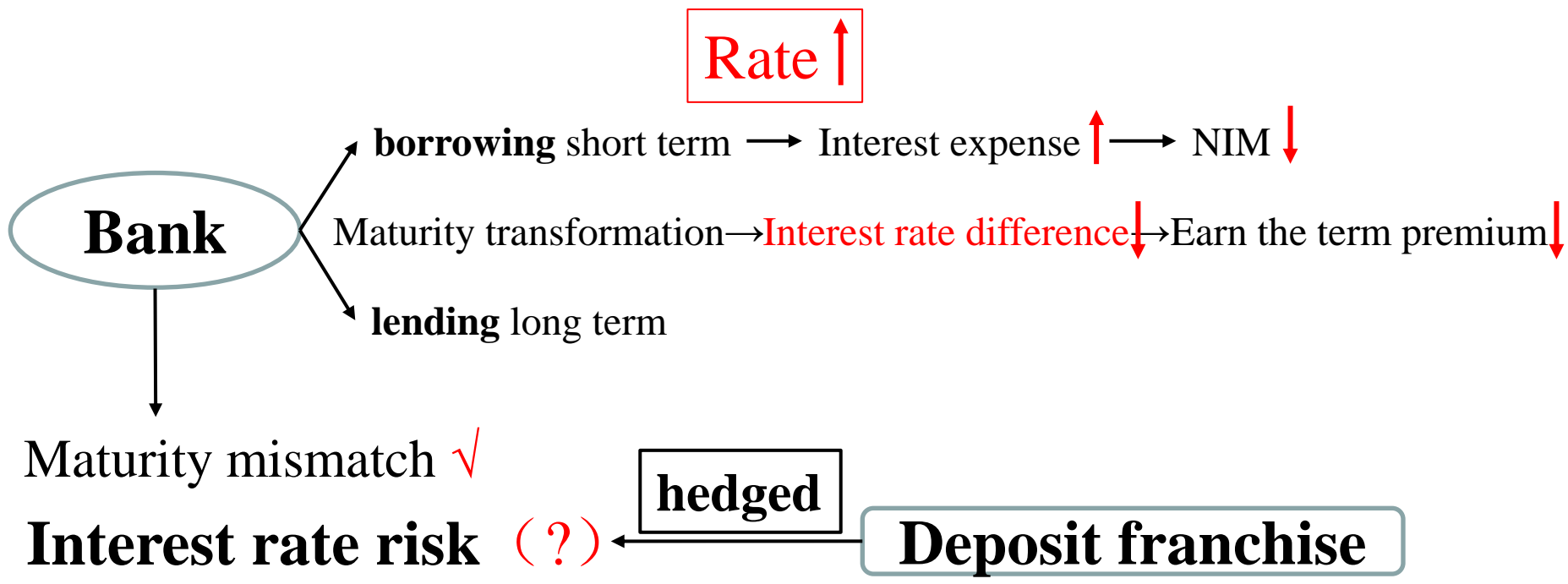


- Fed funds rate
- Interest expense
- · - Interest income





# Abstract



Maturity mismatch ✓

1. **market power** over retail deposits  
borrow at rates low &  
insensitive to market rates

2. high operating costs
  - not vary much over time
  - insensitive to interest rates

Funding with **long-term fixed-rate debt**

# Empirical results

- ◆ Bank profits are **insensitive** to fluctuations in interest rates (even very large).
- ◆ Cross section: deposit franchise ↑ interest expense sensitive ↓  
hold long-term assets ↑
- ◆ A close **one-for-one quantitative match**:  
less sensitive interest expense--less sensitive interest income  
(makes their profits fully hedged against interest rate shocks)



# Content

- 2. **Aggregate** Bank Interest Rate Risk
- 3. **A Model** of Bank Interest Rate Risk  
explain the same sensitivity to the short rate; NIM and ROA stable
- 4. **Data** Sources
- 5. Bank Interest Rate Risk **Hedging**(OLS\Cross-section\Panel)  
cash flow approach(NIM\ROA)、 present-value approach(bank stocks)
- 6. Interest Rate Risk Hedging and **Bank Assets**  
composition of their assets
- 7. **Market Power** and Bank Interest Rate Risk(Panel)  
local market concentration\ branch-level rates



# Conclusion

- Banks **reduce** their interest rate risk **through** maturity transformation **by matching** the interest rate sensitivities of their income and expense.
  - banks obtain a low sensitivity by exercising market power in retail deposit markets
- This sensitivity matching produces **stable NIMs and ROAs** even as interest rates fluctuate widely.



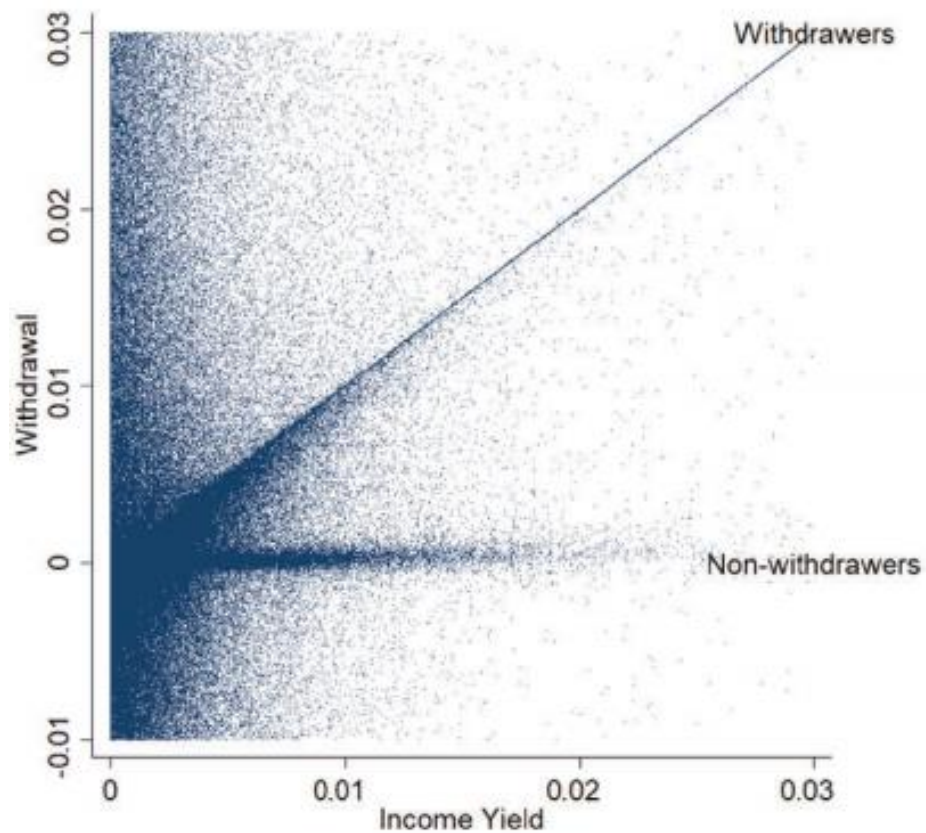
# Monetary Policy and Reaching for Income

## 3. 货币政策与追求收入

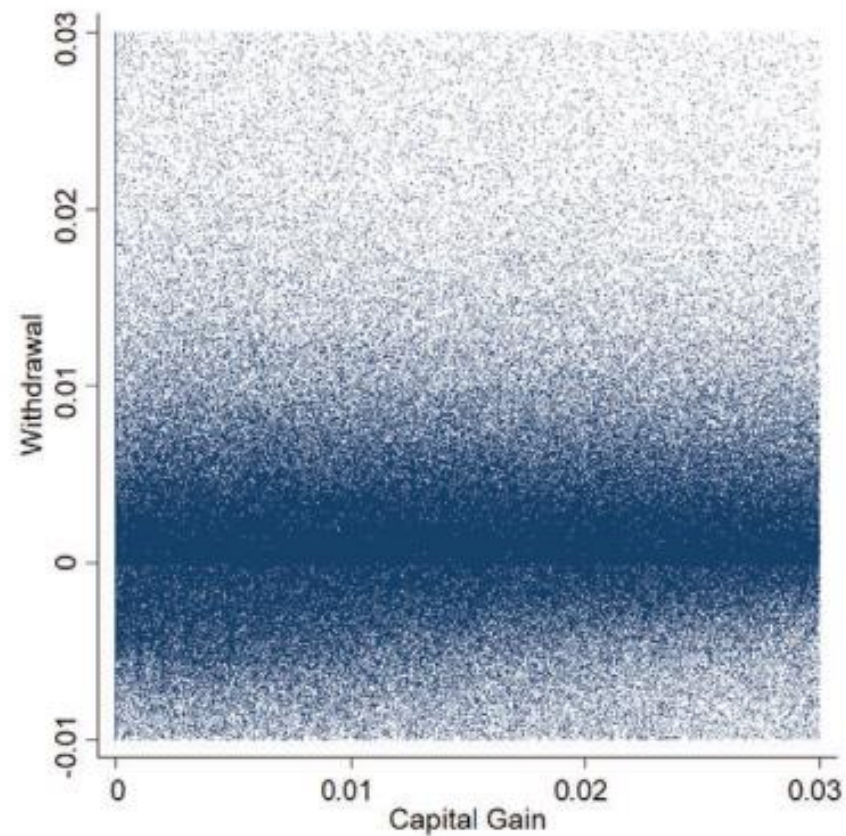


### 3. Monetary Policy and Reaching for Income 货币政策与追求收入

Panel (a). Current Income



Panel (b). Capital Gains



# Introduction

investor

**Rational:** **indifferent** to current income and capital gains

**Popular** retail investment advice: **living off** the income

Interest rates ↓

Income (bank deposits & short-term bonds) ↓

matches desired consumption

high-income assets Demand ↑

Supply -

the securities prices ↑

financing costs ↓ → capital allocation decisions

monetary policy

financial markets



# Abstract

- **low** interest rates <sup>lead to</sup> **higher demand** for income-generating assets (use data)
- “living off income” investor  $\xrightarrow{\text{drive}}$  “reaching for income” phenomenon
- preference for current income (Empirical analysis)  $\begin{cases} \rightarrow \text{household portfolio choices} \\ \rightarrow \text{the prices of assets} \end{cases}$
- “reaching for income”  $\begin{cases} \rightarrow \text{capital allocation} \\ \rightarrow \text{the effectiveness of monetary policy} \end{cases}$





# Content

## ➤ 1. Reaching for Income: Evidence

(1991-1996 year, 7800 household, month) (impulse response & panel)  
the effect of interest rates on demand for income-generating assets

## ➤ 2. Asset Pricing Implications of Reaching for Income

whether reaching for income can result in a link (the interest rate --- asset prices)  
rate ↓ : (+) high-dividend (-) low-dividend stocks & reverse → 0.29% (monthly)

## ➤ 3. A Model of Reaching for Income

key friction: income-consuming investors  
nominal interest rate ↓ → agents receive ↓ & constrain consumption → tilt

## ➤ 4. Implications of Reaching for Income

aggregate consumption	capital allocation
portfolio diversification	investors' risk-taking behavior



# Leverage Dynamics without Commitment

## 4. 无承诺的杠杆动态



# Introduction

- Leverage and its expected dynamics
- Theory of leverage dynamics:  
Fixed(Merton ,1974; Leland,1994, 1998)



# Abstract

- **equilibrium leverage dynamics** in a trade-off model
- leverage ratchet effect → shareholders to issue debt  
Asset growth & debt maturity → **leverage to mean-revert**
- raise credit spreads  $\overset{\text{offsetting}}{\longleftrightarrow}$  the tax benefits of new debt
- Shareholders **indifferent** to the debt maturity structure



# Content

## I. A General Model

CF: general jump-diffusion process; without commitment  
leverage ratchet effect, tax shield ;offset

## II. An Explicit Solution

geometric Brownian motion; closed form debt price & issuance policy  
unique Markov perfect equilibrium(MPE)

## III. Debt Dynamics

optimal debt maturity structure; indifferent; small perturbations/frictions

## IV. Endogenous Investment and Debt Overhang

leverage & investment policies

leverage distorts investment; debt overhang 、 near default、 in equilibrium

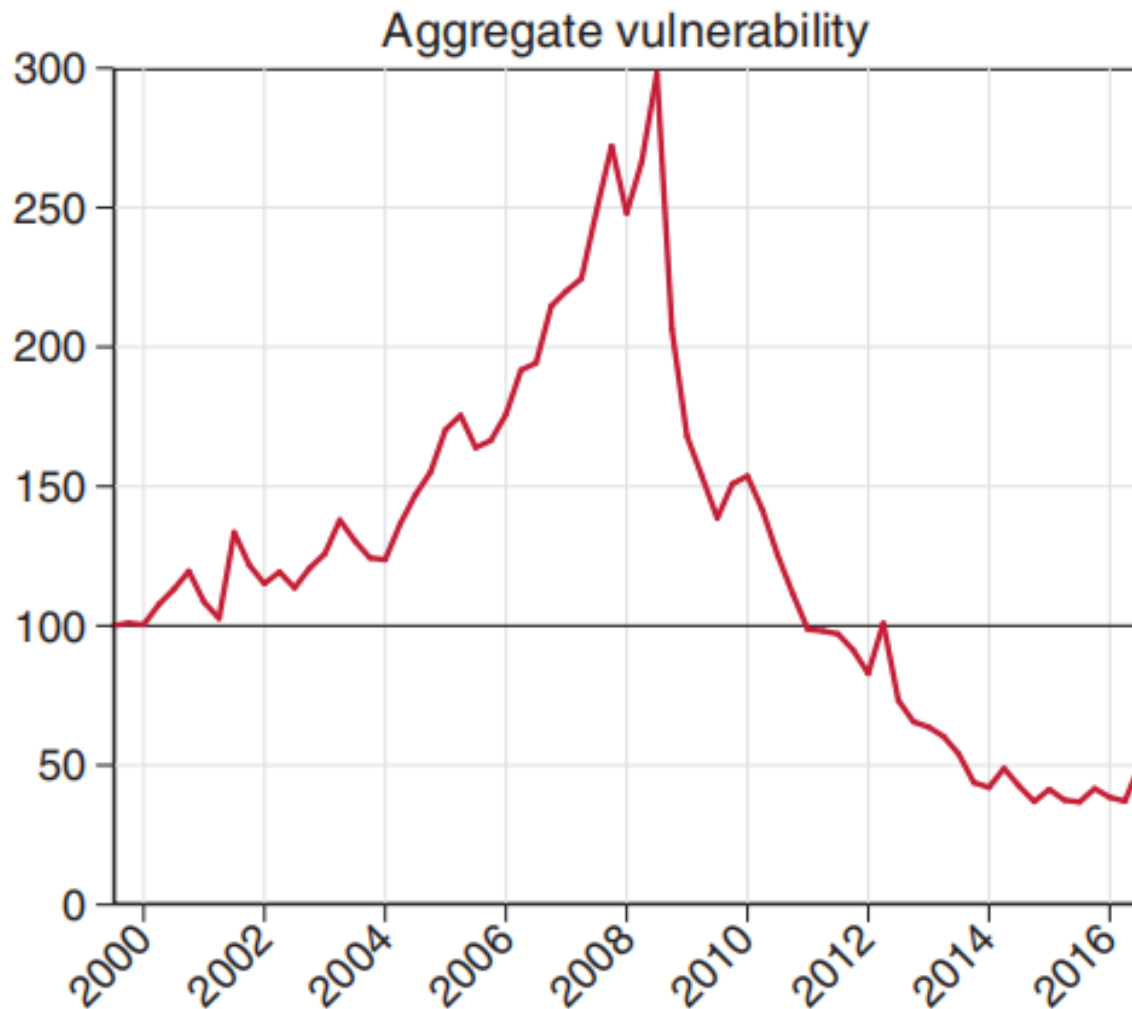


# Fire-Sale Spillovers and Systemic Risk

## 5.大甩卖的溢出效应和系统性风险



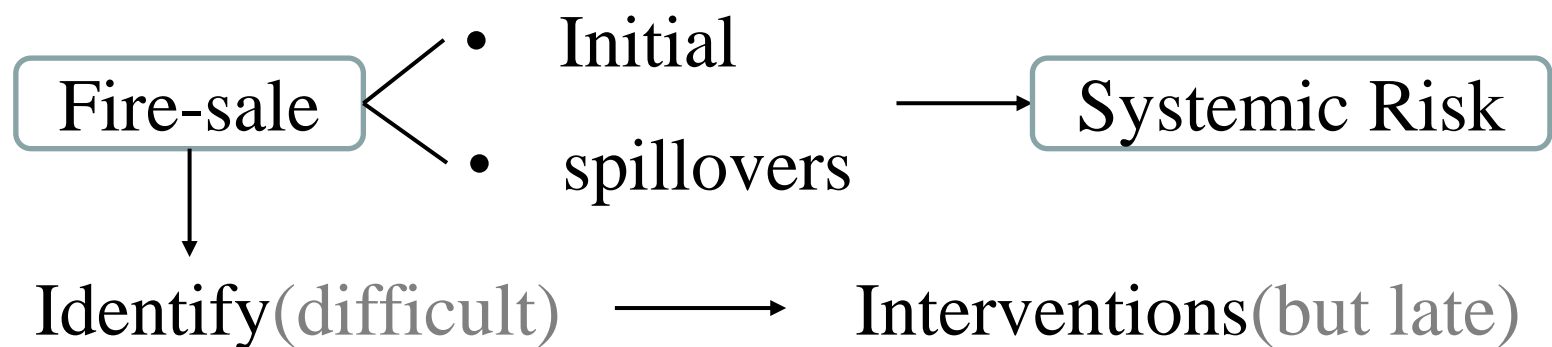
## 5. Fire-Sale Spillovers and Systemic Risk 甩卖溢出效应与系统性风险



- quarterly panel
- U.S. BHCs
- 1999---2016



# Introduction



## Goal

*ex-ante vulnerability* of the financial system to fire sales

- What are the **factors**?
- **Track** over time?
- **When**(develop) & **where** (lurk)?





# Abstract

- ✓ An index of **aggregate vulnerability(AV)**
  - identify and track over time the factors
  - Starts increasing quickly in 2004, triples by 2008, before...
- ✓ **delevering speed** and **concentration** of illiquid assets
- ✓ predict other firm-specific measures of systemic risk (SRISK and CoVaR)
- ✓ Useful **early** indicators of **when and where** (The balance-sheet-based measures)



# Content

## I. Framework

shock → fire sale → price (liquid/size)

## II. Estimation of Leverage Targets and Adjustment Speeds

- **partially adjusts** leverage (Greenwood, Landier, and Thesmar, 2015)
- **adjustment speed** ↑ → Spillover losses ↑ → vulnerability to fire sales ↑

## III. Calculation of Fire-Sale Spillovers

- **drivers (4 AV factors)**: ① Size、② leverage (known)  
③ leverage adjustment speed、④ illiquidity concentration (specific)

## IV. Comparison with Other Systemic Risk Measures

- consistent buildup at least five years **ahead of the crisis**
- four measures as **additional evidence**



# Leveraged Funds and the Shadow Cost of Leverage Constraints

## 6. 杠杆基金和杠杆约束的影子成本



# Introduction

## 影子成本

构建新的度量

- 定义: 当融资风险为0时, 边际投资者融资成本与无风险利率的差 Garleanu&Pedersen (2011)
- 意义: 衡量了边际投资者**杠杆约束紧缩程度**
- 度量: 需要融资利率数据和信用风险调整 (TED利差: 主要衡量信用风险的指标)

根据**杠杆基金**收益推断出的**杠杆市场价格**构建

key innovation

- 目的: 为基础指数产生杠杆收益
- 任务: 决定在哪以及如何获得最低的融资成本
- 做法: 同时从多个主要经纪交易商处借款, 确保有竞争力的融资利率

- 在每个时间点, 使用杠杆基金的整个横截面来推断整个市场的杠杆成本
- 将杠杆总成本构建为所有看涨的杠杆基金的横断面杠杆成本中值
- **影子成本度量**计算为杠杆成本与一般抵押品(GC)回购利率之间的差价

# Content

- New shadow cost of leverage constraints **measure**
- Test four **hypotheses**
  - ✓ (i) the shadow cost of leverage constraints is higher when leverage constraints are more binding. (当杠杆约束更具约束力时，杠杆约束的影子成本更高)
  - ✓ (ii) when the shadow cost increases, the required return of high-beta stocks relative to low-beta stocks decreases
  - ✓ (iii) high-beta stocks have contemporaneously higher returns
  - ✓ (iv) exposure to time variation in the shadow cost is priced in the cross section of expected stock returns
- ◆ New shadow cost measure is useful for assessing the asset pricing implications of leverage constraints.



# Abstract(Conclusion)

### Main work

- ✓ comprehensive data set of leveraged funds
- ✓ **measure shadow cost of leverage constraints**
- ✓ examine its **pricing implications**

### Empirical results

- **tighter** capital requirements → the cost **spikes** upon quarter-ends
- (+) predicts **future** BAB returns
- (-) correlates with **contemporaneous** BAB returns
  - Stocks(experience lower returns)  
when the shadow cost increases, **earn** 0.85% more per month

### Key innovation

- better than the widely used TED spread(measure)



# Subjective Cash Flow and Discount Rate Expectations

## 7. 主观的现金流预期和贴现率预期



# Introduction

**?** Why do **stock prices vary**?

What drives stock price movements?

What explains the large movements in the price-dividend ratio?

$$\frac{P_t}{d_t} = E_t \left( m_{t+1} \frac{P_{t+1} + d_{t+1}}{d_t} \right) \quad (\text{present value approach})$$

Stock's price = her **expected** discounted value of future dividends

objective      subjective

**Price changes** → **dividend expectations** or return expectations changes

**price-dividend ratio changes** → **dividend growth expectations** or return expectations

assign little or no importance (literature)

**price-earning ratio changes** → dividend growth expectations 93%  
 earnings growth expectations 63%





# Content

- **Three key results** (variance decompositions for both price ratios):
  - a **large** contribution from cash flow growth expectations
  - a **negligible** contribution from return expectations
  - a **dominance** of short-term expectations
- **Theoretical benchmark**
  - calculate the variance decompositions in four leading models
  - Earnings Growth Reversal model
- ◆ Cash flow growth expectations have significant potential for explaining stock market volatility.



# Conclusion

CF growth expectations have significant potential for explaining stock market volatility.

- 利用基于调查数据的主观预期，我们发现，主观现金流增长预期的变化占了标普500指数的价格-股息率和市盈率的绝大部分变化。
  - 主观现金流增长预期随时间而显著变化，并随价格比率而上升，即使价格比率不能预测未来的现金流。
  - 主观回报预期的波动性较小，也不会随价格比率而大幅变动。
- 主观现金流增长和回报预期均显示出低持续性，而价格比率的变动主要可由短期现金流增长预期的变化来解释。
- 为了解释这些发现，我们提出了一个对收益增长反转具有主观信念的资产定价模型。
  - 代理公司的现金流增长预期是由于他们的信念，即对收益增长的冲击将被未来的收益增长所扭转，并且收益的变化将逐步纳入股息。
  - 该模型准确地复制了主观现金流增长预期、主观现金流增长预期和价格比率的联合动态的测量时间序列，以及回报外推文献的结果。
- 这些结果强调了时变的主观现金流增长预期在决定总股票价格方面的重要性。



# Abstract(Conclusion)

Why do stock prices vary?

- Using **survey forecasts**, we find that **cash flow growth expectations explain most movements** in the S&P 500 price-dividend and price-earnings ratios, accounting for at least 93% and 63% of their variation.
  - These expectations comove strongly with price ratios, even when price ratios do not predict future cash flow growth.
  - In comparison, return expectations have low volatility and small comovement with price ratios. Short-term, rather than long-term, expectations account for most price ratio variation.
- We **propose an asset pricing model** with beliefs about earnings growth reversal that accurately replicates these cash flow growth expectations and dynamics.



# Who Wears the Pants? Gender Identity Norms and Intrahousehold Financial Decision-Making

## 8.谁说了算？性别认同规范与家庭内部财务决策



# Introduction

Antebellum south : Women obedient to the head



A century later : Women empowerment & gender **inequality**



**?** Traditional gender norms shape household financial decision?



**Black box**

spouses jointly → disagree → any inequality(literature)



# Content

Two complementary analyses:

➤ **Document a gap** in stock market participation between households with a **financially sophisticated husband** and households with a **wife** of equal financial sophistication;

Best **explained by gender identity norms**

gender norm hypothesis

➤ A **randomized controlled experiment**(potential mechanisms)

Explore the **causal effects** of gender identity on both the **information contribution** and the **information aggregation** of intrahousehold financial decision-making



# Content

在调查的最后一部分，受试者根据他们回答ESPP问题的方式被分配到实验的不同部分。

一方面，选择参与该计划的受试者被置于其配偶面临同样决定的场景中。由于不合理的考虑，配偶作为一名合格的雇员，不倾向于参加该计划，受试者有权对该决定进行最后决定。这个场景让我可以检验**性别认同是否会影响个人向配偶贡献想法的意愿**。

另一方面，没有选择参加该计划的受试者被置于这样一种场景中，他们的配偶提供了关于为什么受试者应该利用这个套利机会的正确推理。第二种情况让我能够**检验性别认同是否会影响一个人对来自配偶的建设性建议的开放程度**。



# Results 1

financial sophistication  $\xrightarrow{\text{proxy}}$  a career in finance

**Data** : microdata from U.S. household surveys

➤ **stock market participation:**

- ✓ households (the **husband** works in finance) have a **higher probability than** those (the **wife** works in finance) (2%-7%)
- ✓ one spouse **switching to a career** in finance: ♀ / ♂ : 6%/9%

➤ **Five subsamples:**

- ✓ married couples brought up by working mothers
- ✓ descendants of preindustrial societies (women specialized in activities within the home)
- ✓ the husband was born and raised in a southern state
- ✓ active churchgoers
- ✓ the husband has the final say





## Results 2

### randomized controlled experiment

- recruit close to 4,000 married individuals
- randomly prime them with gender identity
- ✓ female identity **hinders idea contribution** by the wife



# Abstract(Conclusion)

- ✓ Families with a financially sophisticated **husband** are **more likely to participate** in the stock market.
- ✓ This pattern is best **explained by gender identity norms**.
- ✓ A randomized controlled experiment reveals that gender identity **hinders idea contribution** by the wife.



# The Economics of Hedge Fund Startups: Theory and Empirical Evidence

## 9. 初创对冲基金的经济学：理论与实证证据

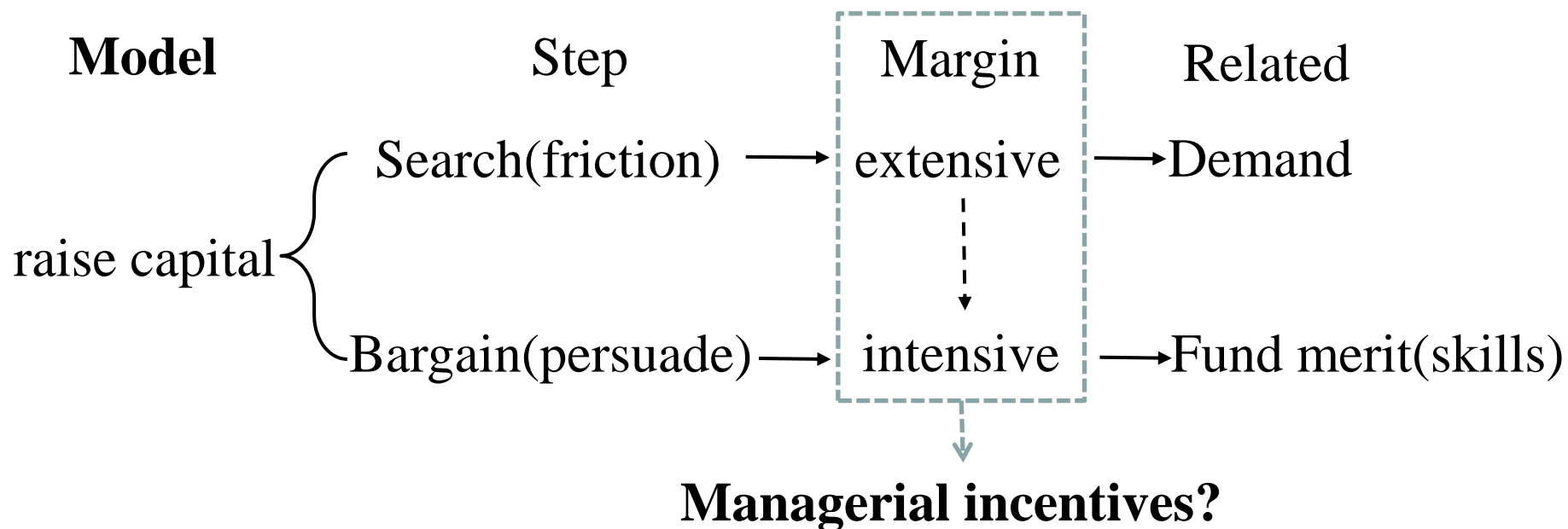


# Introduction

- Competitive, **frictionless** market allows capital to **flow freely** across fund types (*Berk and Green, 2004*)
  - Do market **frictions hinder** the **flow** of capital in the hedge fund industry?
  - Do these **frictions shape** the managerial incentives and organizational structures of the hedge fund industry?
  
- Search frictions
  - mutual fund: using public information to search
  - new hedge fund managers: **find** accredited & **persuade**



# Content



New funds

- Hot inceptions
- Cold inceptions 😊 outperform (1)



# Content

## ➤ Organizational feature:

Hedge fund families → networking → reduce → new funds' search costs → reduce → performance incentive

New funds → Family affiliated inceptions  
 → Stand-alone inceptions 😊 outperform (2)

## ➤ Diseconomies of scale:

Model: Search friction → amplify → diseconomies of scale

Exist funds demand ↑ → clone → absorb the excess demand

funds → Existing fund 😊  
 → Clone inceptions 😊 (3)

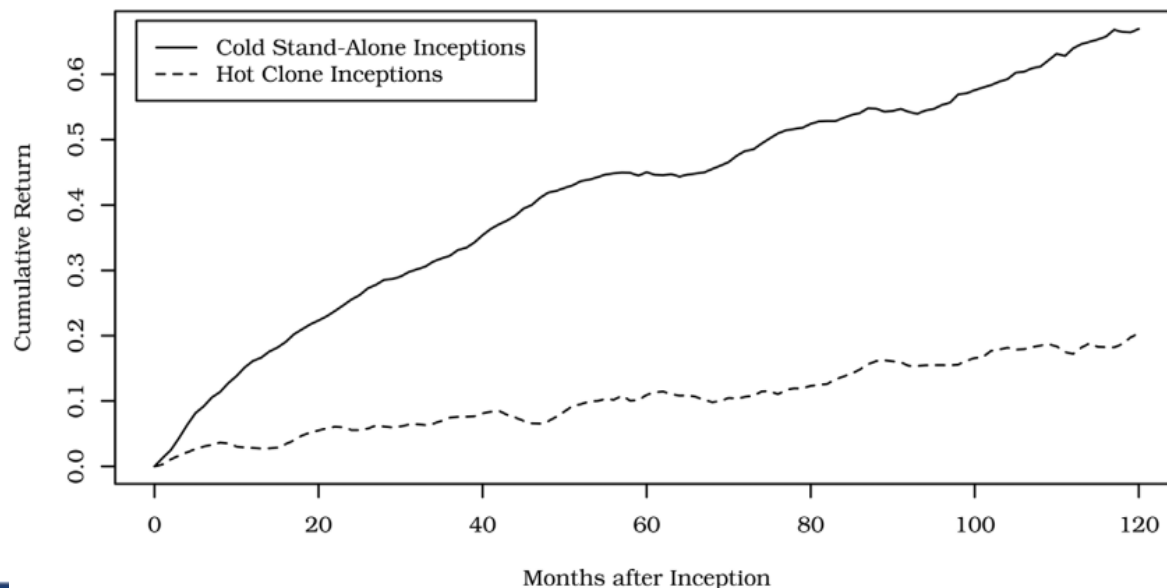


# Empirical Result

## ➤ Data

- merging three leading commercial hedge fund databases (Lipper TASS、HFR、 and Barclay Hedge)
- 1994 to 2016
- recent strategy returns and flows to capture strategy popularity

## ➤ Result



- Cold 😊
- Stand-alone 😊



# Empirical Result

➤ economic source

	Managers' skills		Persistence analysis
	Security-selection	market-timing	
Cold	significant	no	Highly & significantly persistent
Hot	weaker	negative	Negative or insignificant





# Abstract/Conclusion

- ✓ how market frictions influence the managerial incentives and organizational structure of new hedge funds?
- **Stylized model**
- ✓ new managers search for accredited investors and have stronger incentives to acquire managerial skill when encountering low investor demand.
- ✓ Fund families: mitigate frictions and weaken the performance incentives of affiliated new funds.
- **Empirically**
- ✓ cold inceptions outperform existing hedge funds & hot inceptions.
- ✓ cold stand-alone inceptions outperform all types of family-affiliated inceptions.



# Trading Costs and Informational Efficiency

## 10. 交易成本和信息效率



# Introduction

## ➤ Trading Costs

- technological advances
- taxes on financial transactions

## ➤ Trading Costs → informational efficiency?

- Information aggregation
- Information acquisition



# Content

- Investors **trade for two reasons**:
  - private information (contribute informative)
  - the realization of privately known priors (random)
  
- **Price informativeness**
  - **Definition**: precision of the unbiased signal about asset payoffs revealed by asset prices
  - **captures** the extent to which asset prices aggregate information
  - **varies** with trading costs level



# Content<sub>(model)</sub>

## ➤ Setting

- Investors' precision choices: predetermined
- Trading costs: quadratic

## ➤ Two main results

Investor ex ante	price informativeness & level of trading costs	
<b>homogeneous</b>	<b>Independent</b>	<b>signal-to-noise ratio</b>
<b>heterogeneous</b>	<b>sign is ambiguous</b>	<b>demand sensitivities</b>



# Content<sub>(model)</sub>

## ➤ Differ along single dimension

- precision of the private signals

trading costs  $\uparrow$   $\longrightarrow$  informed trades  $\downarrow$   $\longrightarrow$  price informativeness  $\downarrow$

- precision of their prior

trading costs  $\uparrow$   $\longrightarrow$  nonpayoff-relevant trades  $\downarrow$   $\longrightarrow$  price informativeness  $\uparrow$  ★

- risk aversion

price informativeness unchanged



# Content

- **Three applications**
  - ✓ **choose the precision** of their private signal:  
**trading costs** tend to **reduce** the endogenous precision of signals about the fundamental,  
**decreasing** equilibrium price informativeness
- **Linear** trading costs and **fixed** trading costs



# Abstract(Conclusion)

- ✓ the **effect** of trading costs on information **aggregation** and **acquisition**
- ✓ given precision of investors' private information

Investor ex ante	price informativeness & level of trading costs
<b>homogeneous</b>	<b>Independent</b>
<b>heterogeneous</b>	<b>sign is ambiguous (source of heterogeneity)</b>

- ✓ valid under quadratic, linear, and fixed costs
- ✓ trading costs  $\uparrow \longrightarrow$  information acquisition  $\downarrow \longrightarrow$  price informativeness  $\downarrow$
- ✓ how our results inform the policy debate on financial transaction taxes/Tobin taxes





For Richer, for Poorer: Bankers' Liability and Bank  
Risk in New England, 1867 to 1880

**11.富人和穷人：1867年至1880年新英格兰银行家的  
责任和银行风险**



# Introduction

Agency problems in banking  $\xrightarrow[\text{How address?}]{\text{What extent ?}}$  financial instability ★ 2008

➤ Argue:

Banker face asymmetric payoff  $\rightarrow$  amplified by banks' high leverage  $\rightarrow$  excessive risks  
*e.g., Dick Fuld*

Bankers  $\left\{ \begin{array}{l} \text{have more personal liability} \\ \text{shoulder a larger fraction of losses} \end{array} \right. \rightarrow$  Financial system safe

Goal

Whether **increasing bankers' personal liability** is necessary to **reduce bank risk**?



# Introduction

- Conceptually
  - **implicit liability** (e.g., human capital)
- Empirically
  - hard to **evaluate the effectiveness** of increasing bankers' personal liability



# Content (1)

## ➤ natural experiment from history

- plausibly **exogenous variation** in bankers' **personal liability**  
—the banking sector in New England between 1867 and 1880
- traditional common law vs Married Women's Property Acts  
1844-1862
- *keeping constant* the regulatory environment, year, and location

**1844 to 1862**

1867 to **1873**

**1873** to 1880

States pass **MWPAs**

Economic growth

**Panic** and Depression


Loans to firms:

- Steam power



# Result (1)

➤ Managers have **less liability**, banks are **riskier**.

- **banks** with managers who **married after a law** (Long Depression of 1873 to 1878) 
  - higher leverage
  - delayed loss recognition
  - more risky and fraudulent loans
  - lost more capital and deposits
- **the effect is stronger** for bank presidents married to **richer women** for whom an MWPA had most bite.



## Content (2)

- test whether our effects are **driven by selection**
- explore the real effects of increasing bankers' liability
  - steam power, requires high upfront investment
  - no difference (married before or after an MWPA)



# Abstract(Conclusion)

- If managers have **less liability**, **whether** banks are **riskier**? ★
- 1867 and 1880、New England、marital property laws(NWPAs)
- ✓ Long Depression of 1873 to 1878

**banks** with managers  
who **married after a law**

- higher leverage
- delayed loss recognition
- more risky and fraudulent loans
- lost more capital and deposits

most **pronounced** for bankers with the largest reduction in liability

- ✓ **No evidence** that limiting liability increased firm investment at the county level.



***Thank You!***

