

Class 5: China's FinTech and Asset Management

Financial Markets, Spring 2021, SAIF

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May 22-23, 2021

- Asset Management in China
- FinTech Platform and Mutual Fund Distribution
- Household Finance in the Age of FinTech

Asset Management in China

- Estimated at around RMB 100 trillion by 2018:
 - ▶ Wealth management products: 32 trillion.
 - ▶ Trust products: 22 trillion.
 - ▶ Asset management products: 50 trillion.
- Household savings are 23% of GDP, 15% higher than the global average in 2016.
- As of 2020, mutual funds close to 20 trillion, including over 9 trillion money market funds.
 - ▶ Limited presence; huge potential.
 - ▶ Incoming competition from foreign asset-management companies.
 - ▶ Increasing partnerships with tech firms: Vanguard with Ant Financial; Blackrock in talks with Tencent.

Asset Management in China

资管市场整体统计（协会公布）

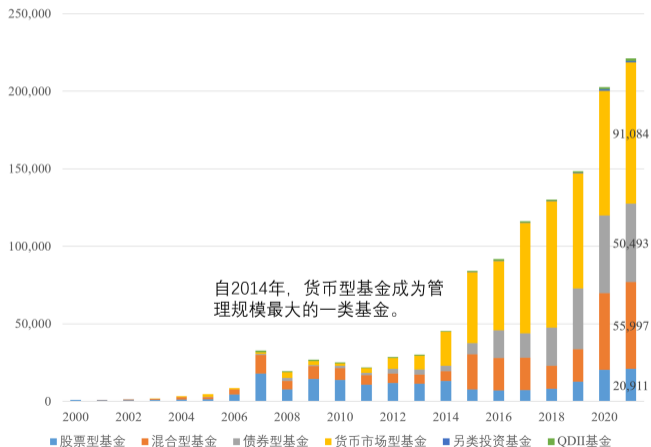
报告期（年底）	2020	2019	2018	2017	2016	2015	2014
资产管理业务总规模(万亿元)	58.99	52.23	50.36	53.57	51.79	38.20	20.50
其中：公募基金	19.89	14.77	13.03	11.60	9.16	8.40	4.54
其中：基金专户(含子公司)	8.06	8.53	11.29	13.74	16.89	12.60	5.88
其中：证券公司	8.55	10.83	13.36	16.88	17.58	11.89	7.95
其中：期货公司	0.22	0.14	0.13	0.25	0.28	0.10	0.01
其中：私募基金	16.96	14.08	12.71	11.10	7.89	5.21	2.13

银行理财规模（银行理财年报）

报告期（年底）	2019	2018	2017	2016	2015	2014
银行理财总规模（万亿元）	23.40	22.04	29.54	29.05	23.50	15.02
其中：国有大型银行	8.53	8.51	9.97	9.43	8.67	6.47
其中：全国性股份制银行	9.72	8.80	11.95	12.25	9.91	5.67
其中：城市商业银行	4.03	3.64	4.72	4.40	3.07	1.70
其中：外资银行	0.09	0.10	0.37	0.33	0.29	0.39
其中：农村中小金融机构	1.02	0.95	1.57	1.64	0.91	0.46
其中：其他机构	0.02	0.04	0.96	1.01	0.65	0.34
数量（万）	4.73	4.80	9.35	7.42	6.09	5.50

备注：2018年之后的数据只包括非保本理财产品。

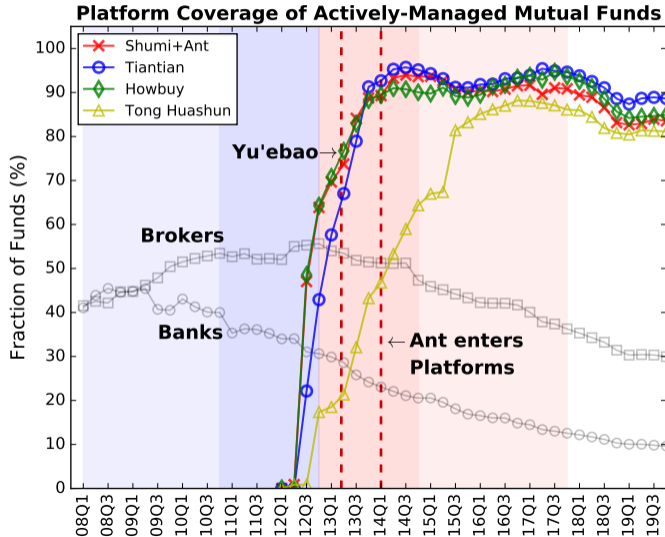
中国公募基金（亿元）



FinTech Platforms and Mutual Fund Distribution

- Traditionally, mutual funds are distributed by fund families, banks, and brokers:
 - ▶ Different distribution channels offer different collections of funds.
 - ▶ Flow of information:
 - ★ Barricaded and segmented, both within and across distribution channels.
 - ★ Biased, as each channel promotes its own funds, both online and offline.
- Created by tech-driven firms, platforms are independent of the traditional channels:
 - ▶ Thrive on scale – vast fund coverage and large user base.
 - ▶ Improve the means of connectivity:
 - ★ take down the barriers,
 - ★ allow information to flow more freely,
 - ★ and level the playing field for all mutual funds.
 - ▶ Technological efficiency – mobile apps allow for quick and convenient access to trading, moving away from physical counters and pc-based websites.

The Emergence of FinTech Platforms



Mutual Fund Distribution Channels

2021Q1销售机构公募基金销售保有规模

排名	机构名称	股票+混合公募基金保有规模(亿元)	非货币市场公募基金保有规模(亿元)
1	招商银行股份有限公司	6711	7079
2	蚂蚁(杭州)基金销售有限公司	5719	8901
3	中国工商银行股份有限公司	4992	5366
4	中国建设银行股份有限公司	3794	4101
5	上海天天基金销售有限公司	3750	4324
6	中国银行股份有限公司	3048	4572
7	交通银行股份有限公司	2381	2483
8	中国农业银行股份有限公司	2268	2468
9	上海浦东发展银行股份有限公司	1656	1708
10	中国民生银行股份有限公司	1512	1566
11	兴业银行股份有限公司	1380	1441
12	中信证券股份有限公司	1298	1315
13	中信银行股份有限公司	1030	1343
14	平安银行股份有限公司	910	1039
15	中国光大银行股份有限公司	793	864
16	广发证券股份有限公司	741	787
17	中国邮政储蓄银行股份有限公司	703	1128
18	腾安基金销售(深圳)有限公司	633	1040
19	宁波银行股份有限公司	562	592
20	华泰证券股份有限公司	545	594

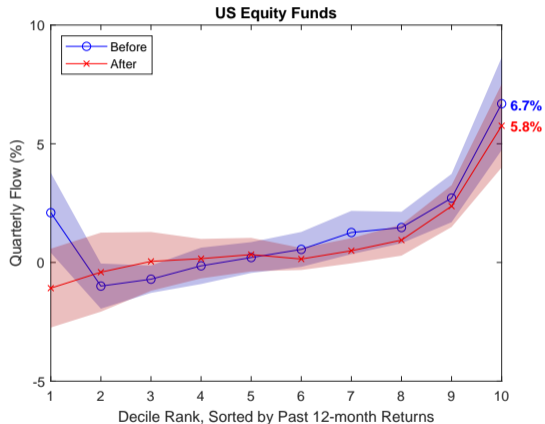
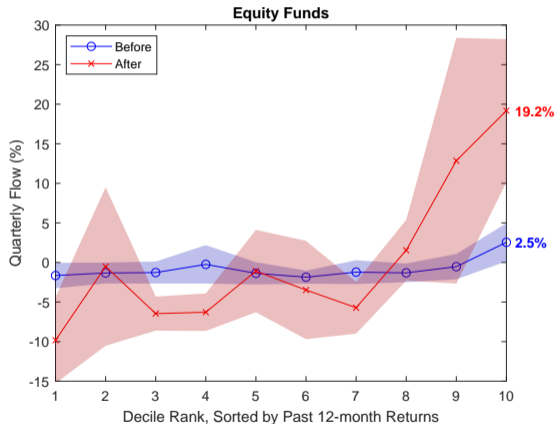
各渠道公募基金销售保有规模占比

年度	商业银行(%)	证券公司(%)	基金公司直销(%)	独立基金销售机构(%)	其他(%)
2015年	25.22	10.01	61.90	2.14	0.73
2016年	23.43	8.23	65.62	2.24	0.48
2017年	24.41	6.05	65.38	3.84	0.32
2018年	24.14	6.41	61.26	7.76	0.42
2019年	23.59	7.59	57.29	11.03	0.49

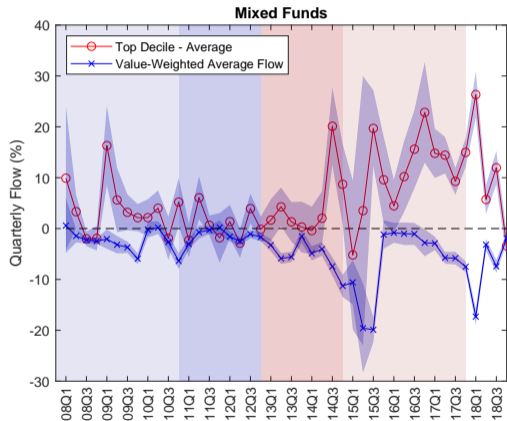
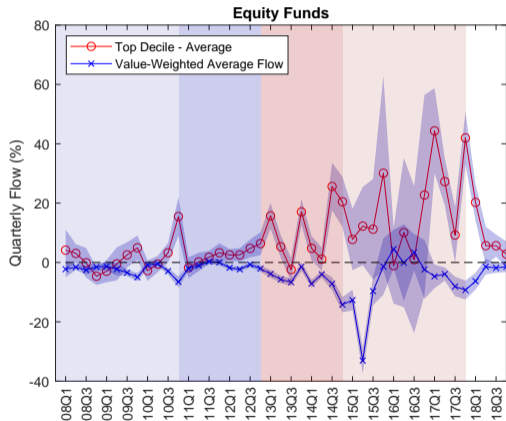
The Economic Impact of FinTech Platforms

- As the platforms make the **distribution of funds** more efficient, do they also make the **allocation of risk** more efficient for investors?
- As the platforms improve the **means of connectivity**, what is the impact on the **means of production**, particularly for the actively-managed mutual funds?
- More generally, what are the economic consequences, *both intended and unintended*, of this new and powerful distribution channel?
- Findings:
 - ▶ Investors: striking increase in performance chasing associated with the emergence of FinTech platforms.
 - ▶ Fund managers: increased risk taking to enhance the probability of getting into the top rank.
 - ▶ Fund families: the organizational structure of large fund families weakens as the introduction of platforms levels the playing field for all funds.

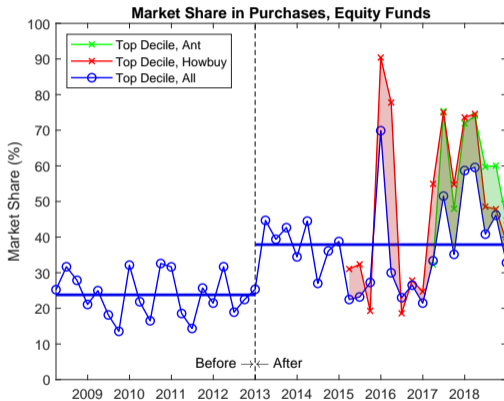
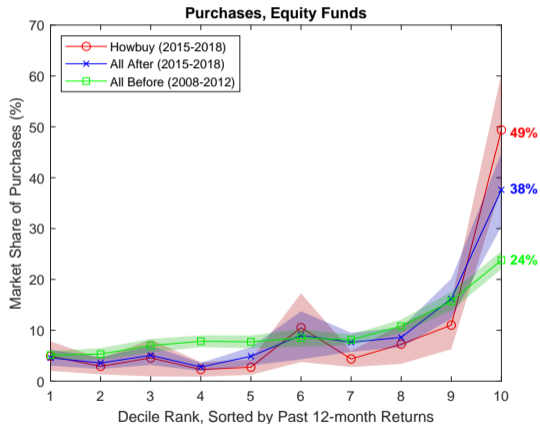
Fund Flow and Past Performance



Time-Series Variation of Performance Chasing



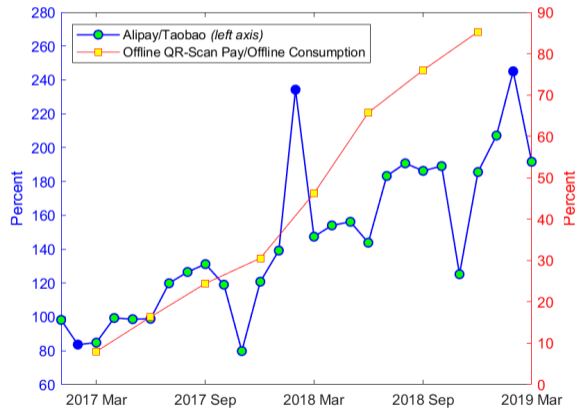
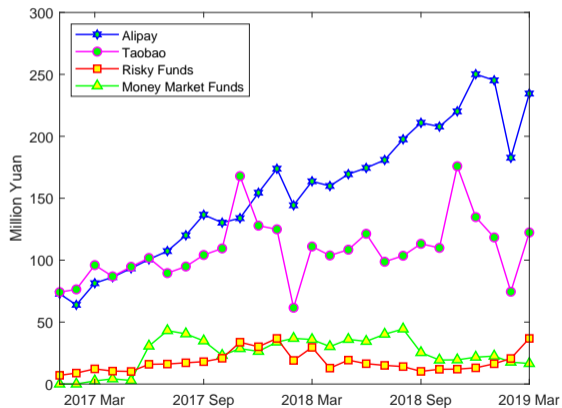
Direct Evidence from Howbuy



Household Finance in the Age of FinTech

- The current wave of “Fin + Tech” development is unique in that
 - ▶ **FinTech Platforms:** created by tech not finance firms.
 - ★ Giant user bases, low operational costs, and a culture of “winner-take-all.”
 - ▶ **Super Apps:** financial services delivered directly to households via super apps.
 - ★ Free of traditional financial advisors.
 - ★ All-in-one ecosystems with a wide range of products.
- In China, activities central to household finance are taking place on FinTech platforms via super apps:
 - ▶ **Consumption:** online consumption accounts for 25% of the total.
 - ▶ **Investments:** 30% of mutual fund purchases takes place on FinTech platforms.
 - ▶ **Payments:** digital payments everywhere.

Consumption, Investments, and Payments aggregated over a random sample of 50,000 individuals



Alipay as a One-Stop FinTech App

Imagine if

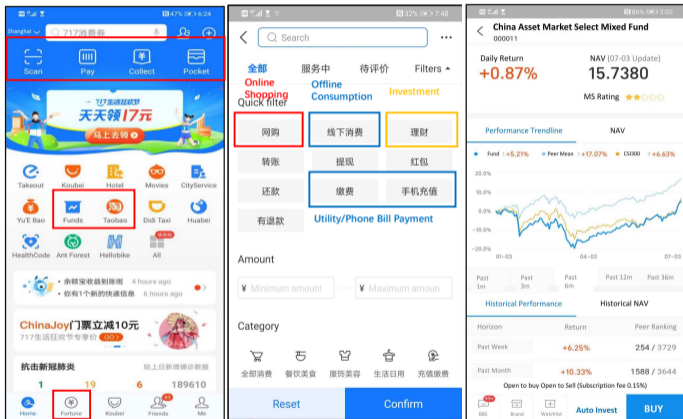
- 1 Main-street banks
- 2 Wall Street's brokers
- 3 Boston's asset managers
- 4 Connecticut's insurers

all shrunk to fit into

- 1 a single app designed in Silicon Valley

that almost everyone used.

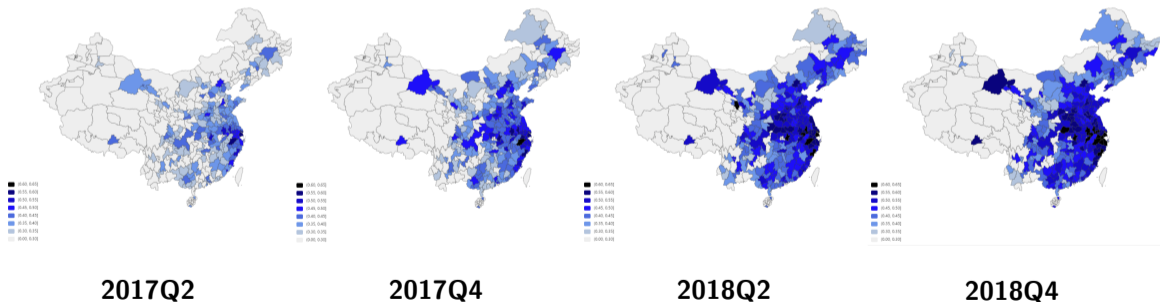
— The Economist, Oct 8th 2020



Measuring FinTech Adoption in China

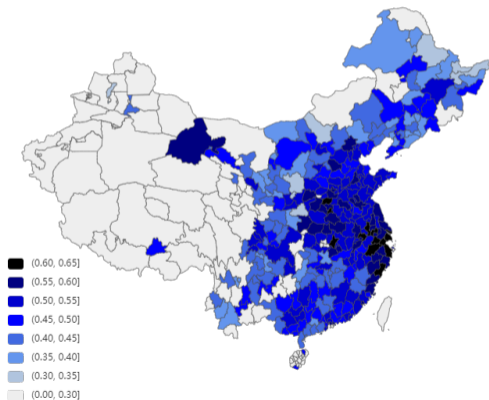
Using individual i 's month- t consumption on Alipay and Taobao:

$$\text{AliFrac}_t^i = \frac{\text{Alipay}_t^i}{\text{Alipay}_t^i + \text{Taobao}_t^i}$$

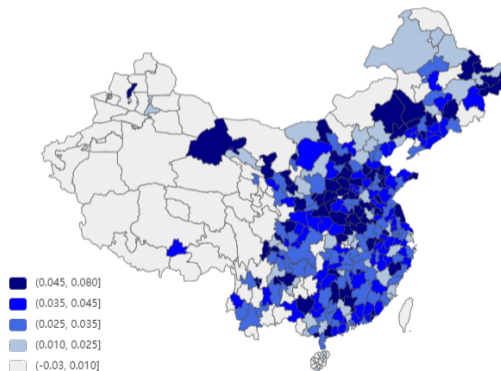


City-Level FinTech Penetration

Average Level of FinTech Penetration



2018 minus 2017



- **Can FinTech lower investment barrier and improve household risk-taking?**
 - ▶ Under risk-taking: access costs, lack of familiarity, trust, financial education.
 - ▶ FinTech platforms: easy access, low costs, brand recognition, repeated usage.
 - ▶ FinTech convenience reduces physical costs, increasing participation.
 - ▶ Repeated usage of Alipay builds familiarity and trust, increasing risk-taking.
- **Who benefits the most from FinTech Advancements?**
 - ▶ The otherwise more constrained investors prior to the arrival of FinTech:
 - ★ Individuals who are more risk-tolerant.
 - ★ Individuals living in areas under-served by financial institutions.
 - ▶ Individual heterogeneity: risk tolerance inferred from consumption volatility.
 - ▶ Geographical variation in financial inclusion: areas under-served by financial institutions, using the number of local bank branches as a proxy.

- **Optimal portfolio choice and consumption:**

- ▶ Mean-variance: Markowitz (1952) and Tobin (1958).
- ▶ Dynamic continuous-time models: Merton (1969, 1971).

- **Insights from Merton's portfolio problem:**

- ▶ The link between the optimal portfolio weight w^* and risk-aversion γ

$$w^* = \frac{1}{\gamma} \frac{\mu - r}{\sigma_R^2}$$

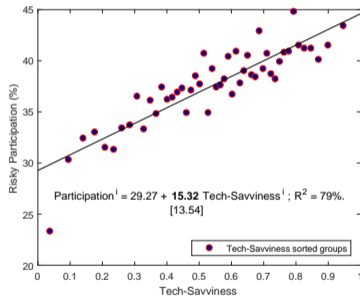
- ▶ The link between the optimal consumption volatility σ_c and risk-aversion γ

$$\sigma_c = \sigma_w = w^* \sigma_R = \frac{1}{\gamma} \frac{\mu - r}{\sigma_R}$$

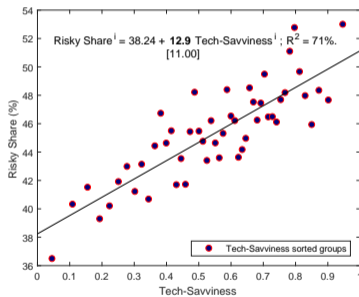
- **Beyond Merton:** alternative specifications of household utility, stochastic interest rates, and time-varying risk premiums.

FinTech Adoption and Risk-Taking

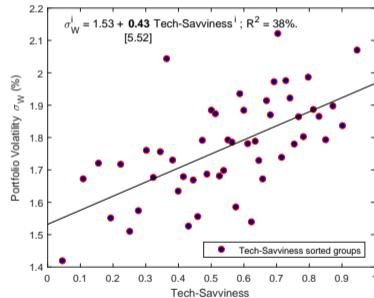
Participate



Risky Share

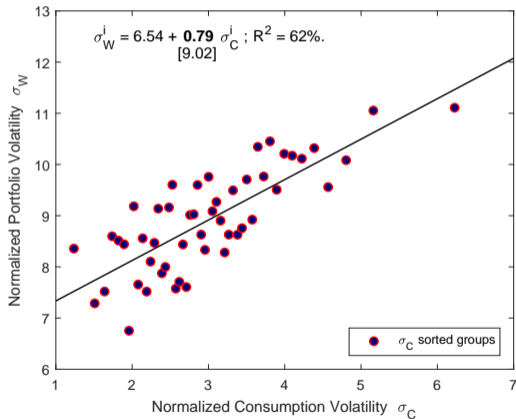


Portfolio Volatility σ_W

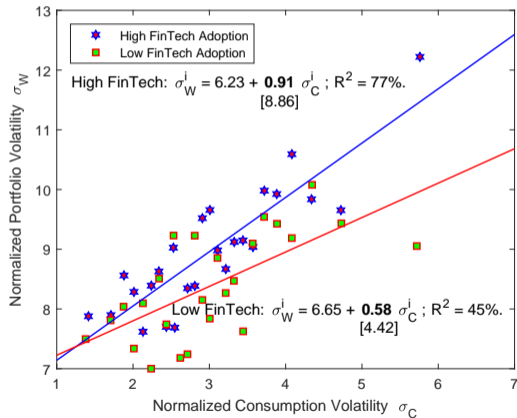


Optimal Alignment of Consumption and Investment

All Active Users

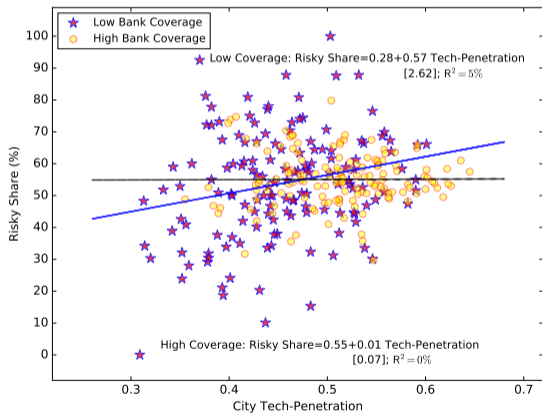


High and Low FinTech Adoption



Which Cities Benefit More from FinTech Advancements?

Level



Change

