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Do Internet Finance Platforms Mitigate Conflicts of Interest?

The Case of Mutual Fund Investment

Shang-Jin Wei* and Chloe Chunliu Yang†

Abstract

This paper studies whether financial intermediaries with distorted incentives encourage investors to make unwise trading decisions and whether internet finance platforms, by reducing interactions between the intermediaries and investors, help to mitigate conflicts of interest. By analyzing a proprietary individual-account level trading data from a major mutual fund family in China, we document patterns that are consistent with banks magnifying investors' behavioral bias (overtrading in particular) to collect more sales commissions. Investors purchasing funds through banks charging higher fees trade more frequently (without better returns) than their counterparts paying lower fees. Despite the high transaction fees charged by banks, bank-channel investors trade more excessively than investors on the fund family's platforms. With the spread of smart phones, increasingly investors switch from banks to the fund family platform directly. Even though the fund online platform charges a lower fee than banks, investors trade significantly less after switching. This is especially true for female investors who are likely more susceptible to persuasion of bank account managers. We conclude that online platforms help to mitigate conflicts of interest.

* Shang-Jin Wei, Columbia Business School, Columbia University, FISF, Fudan University and NBER. Email: shangjin.wei@columbia.edu.

† Chloe Chunliu Yang, FISF, Fudan University. Email: chloe_yang@fudan.edu.cn.

1. Introduction

In theory, investors are willing to trade only if the expected profit from trading could cover their transaction costs. Therefore, given the same investment opportunities, investors would trade less when transaction costs are higher. However, the transaction costs to investors are someone else's profit. That someone else may have an incentive to induce investors to trade more than necessary if investors are not fully cognizant of the true consequences of overtrading.

In this paper, we document such a case. Analyzing a proprietary dataset obtained from a major mutual fund family in China containing complete trading information for more than 0.7 million individual investors, we identify a seemingly puzzling phenomenon that individual investors trade more when they need to pay higher transaction fees. We propose that conflicts of interest between intermediaries (banks that channel investors to mutual funds in particular) and investors are likely responsible for this distorted trading behavior of individual investors. Furthermore, we study whether the rise of online banking and internet finance platforms, by reducing interactions between the intermediaries and investors, help to mitigate conflicts of interest.

Mutual funds are an important investment vehicle for individual investors. By the end of 2017, mutual funds manage RMB 11.5 trillion total net assets (TNA) in China (equivalent to 1/7 of the 2017 GDP). Investors could purchase mutual funds through

multiple distribution channels. For instance, they could either directly trade through fund families or indirectly through banks, securities firms, or fund sales companies. Because commercial banks have the most number of physical branches and the longest history as financial institutions, they are the dominant distribution channels for mutual funds. More than 60% transactions in our sample are conducted through banks. Two of the big four state-owned banks in China, Industrial and Commercial Bank of China (ICBC) and China Construction Bank (CCB), account for almost 40% of the transactions.

However, the transaction costs faced by mutual fund investors are also the highest if they use banks as a conduit of investment compared to direct purchases on the mutual fund family's website or even to other indirect sales channels. The fee differences between banks and fund families are not negligible. The average front-end loads charged by banks are approximately 1.5%, while those charged by fund families are only 0.3%. Table I lists the average front-end loads and back-end loads charged by four major fund distribution channels. A front-end load is charged at the time of the initial purchase for a mutual fund. It is directly deducted from the investment amount and consequently reduces the realized returns of the investment. Similarly, a back-end load refers to a fee that investors pay when selling mutual fund shares. Front-end loads and 75% of back-end loads (25% of back-end loads go into mutual funds' assets under management) are paid to banks or other financial intermediaries as sales commissions if mutual funds are not purchased directly from fund families.

Given the higher purchase fees charged by banks, possible reasons that investors still prefer banks are: 1) banks have numerous branches with staff readily available to assist investors; 2) most investors trust that mutual funds offered by banks are reliable and unlikely to be fraudulent. [If the higher costs charged by the banks are a "convenience fee," one should not expect investors to earn lower returns before adjusting for transaction fees. We will examine this question later.]

According to the Wind database, in 2010, more than 2 trillion mutual fund shares are redeemed while 1.7 trillion shares are purchased in China. Given that banks charge both front-end loads and back-end loads, tens of billions RMB are profited by banks. Sales of investment products such as mutual funds are one of the major components of the Key Performance Indicator (KPI) for sales personnel at banks. Zhan (2013) gives an example that account managers at a commercial bank in China are required to sell more than RMB 50,000 worth of financial products such as mutual funds per month. To fulfil their KPI target, account managers may advise investors to switch funds more frequently despite the return losses incurred by overtrading. Moreover, account managers at banks could pocket a 2% sales commission if they successfully sell newly offered mutual funds to investors. Therefore, they are even more motivated to encourage individual investors to sell the existing funds they owned and to buy newly offered funds, leading to excessive trading of mutual funds.

As quoted from SEC chairman Manuel Cohen in 1967's address: "the judgement of securities firms and their salesmen as to what type of security, or which particular fund, is best for the particular customer may be influenced, even subconsciously, by major differences in sales compensation." In order to motivate bank staff to sell more fund shares to investors, in the past, fund managers in China even paid undisclosed incentive fees to bank staff, which were banned by regulators later.

To investigate the influence of banks on individual investors' investment decisions, we analyze the trading behavior of individual investors of a large fund family in China. Our sample, spanning from 2005 to 2017, contains the complete trading information of a 10% random sample of individual investors of this fund family, such as the amount purchased or redeemed, transaction costs, and distribution channels for each trade. It also includes investors' personal characteristics such as gender, age, yearly income, education level, occupation, and location. We focus on equity funds and balanced funds. Our sample includes 745,223 unique individual investor's trading records for 25 equity funds and 31 balanced funds.

Other than the possible effect of bank staff, investors' characteristics, such as age, income, risk preferences, and gender, may also matter for their trading patterns. We track 1,115 individual investors who have switched fund distribution channels from banks to the fund family's platform. Consistent with our hypothesis that banks may magnify overtrading, we find that these investors' turnover significantly decreased after

switching to the fund family. Note that the decision to switch distribution channels is likely to be endogenous. In particular, investors who expect to trade frequently would have a stronger incentive to search for a lower-cost trading platform. This selection would have predicted more frequent trading to be associated with switching from trading via banks to trading directly on the mutual fund family's website. Thus, our results may be an underestimate of the true effect of bank staff on individual investors.

We also examine 7,041 investors' trading pattern changes after they switch to the third party trading platforms (Tiantian Fund in particular) from banks. According to Securities Daily in 2016, after the first batch of 4 institutions were approved by China Securities Regulatory Commission in 2012, the number of independent fund sales companies has increased dramatically to 86 in 4 years. Among these 86 fund sales companies, Tiantian fund was ranked number one both in terms of sales and number of funds offered on its website. Tiantian Fund is one of four independent fund sales organizations approved in 2012. It has grown rapidly in recent years. In 2017, it reached a sales number of RMB 0.4 trillion, which is roughly half of the mutual fund sales of CIBC in the same year. Among these 7,104 investors, 6,136 switched to Tiantian Fund from banks in 2017. While the existing literature documents that men trade more than women, interestingly, we find that there is no significant difference (with a p-value of 0.58) between men and women's turnover prior to switching. After switching to Tiantian Fund, the difference between men and women's turnover becomes significant again (with a p-value of 0.003). This is consistent with Lewellen, Lease, and

Schlarbaum (1977)'s finding that female investors are likely more susceptible to the persuasion of bank account managers.

Another interesting fact is that the fee differences between banks and the fund family are not constant over time. Using a difference in differences (DID) test, we find that a decline in banks' sales commissions from 2007 to 2011 significantly decreases investors' turnover when comparing to the turnover change of investors who trade directly through the fund family. Similarly, a boost in banks' sales commissions from 2014 to 2016 significantly increased investors' turnover compared to the turnover change of investors who directly purchases from the fund family. This implies that bank staff's incentive may influence investors' trading decisions significantly; they exert more effort to encourage investors to trade more frequently when their rewards from doing so are higher.

While the existing literature is not able to distinguish between high-fee middlemen providing extra services vs. high fee middlemen profit at the expense of the investors, we attempt to rule out the first possibility. If the first possibility were true and investors overtrade to compensate for the extra services provided by banks 1) it could hardly explain the disappearance of the trading frequency gap between men and women in the bank channels, as it is unlikely that banks provide better services to women than men; 2) assuming banks offer superior services to high net worth investors, we would observe a smaller trading frequency gap between high and low net worth investors in the bank

channels compared to the direct channels, which is not the case in the data.

Our findings also shed light on how conflicts of interest (on the part of the middlemen) interact with investors' behavioral biases. If the higher sales commissions charged by banks are justified by better advice, one useful service they could provide is to attenuate individual investors' behavioral biases such as overtrading. On the contrary, our findings suggest that banks magnify investors' overtrading behavior.

Another important implication is how the optimal regulation of middlemen should be designed. While most banks evaluate account managers by the total amount of mutual fund purchases plus redemptions, China Merchant Bank (CMB) took a reform and adopt a new evaluation measure: the faction of mutual funds' assets under management purchased through CMB. Its reform might be linked to the rise of online trading platforms as it didn't have as many branches as the Big 5 banks and might need a different strategy to attract investors. With this new evaluation system, account managers' interests would be more aligned with investors as they would have no incentive to induce investors to overtrade. In the long run, aligning the interests of banks with investors would benefit both investors and banks. According to the newest half-year financial reports in 2018, with a sales number of almost RMB 0.5 trillion in the first half year of 2018, CMB has exceeded CIBC's mutual fund sales (RMB 0.4 trillion) and become the number 1 fund sales institution in China.

The remainder of the paper is organized as follows. Section 2 reviews the related literature, section 3 describes the data, section 4 presents the empirical results and section 5 concludes.

2. Related Literature

The trading distortion induced by incentives of bank client advisors is facilitated by behavioral biases of investors. The existing literature[1] documents that individual investors are subject to overconfidence: they trade frequently and lose money due to overtrading. Bailey, Kumar, and Ng (2010) find that overconfidence also affects mutual fund investors' investment decisions. Overconfidence is one of the major predictors of whether an investor will trend-chase with mutual funds. Moreover, somewhat surprisingly, overconfident investors are more likely to invest in mutual funds. If the higher sales commissions charged by banks are justified by better advice, one useful service they could provide is to attenuate individual investors' behavioral biases such as overtrading. On the contrary, our findings suggest that banks magnify investors' overtrading behavior.

Bergstresser, Chalmers, and Tufano (2008) find that investors who purchase mutual funds through the broker channel pay substantially higher fees and invest into funds with lower risk-adjusted returns than directly-placed funds. While they only include the

[1] See Odean (1999), Barber and Odean (2001), and Odean, et al (2008).

aggregate level data, the analysis of individual account-level data in our paper allows us to examine the less easily measured benefits or costs of financial intermediaries (banks in particular), such as the effects of bank staff on investors' turnover.

Lewellen, Lease, and Schlarbaum (1977) analyze survey answers and brokerage records (from 1962 to 1970) of 972 individual investors and find that men make more transactions and rely less on their brokers than women. Barber and Odean (2001) document that men trade 45 percent more than women and consequently suffer more return loss from overtrading. Consistent with their results, when analyzing the trading behavior of switchers who switched from banks to Tiantian fund, we find that women trade significantly less than men after switching to Tiantian fund. However, women trade as much as men prior to switching.

3. Data

Our main data source is a proprietary data set from a large fund family in China. Our sample, spanning from 2005 to 2017, contains the complete trading information of a 10% random sample of individual investors of this fund family, such as the amount purchased or redeemed, transaction costs, and distribution channels for each trade. It also includes investors' personal characteristics such as gender, age, yearly income, education level, occupation, and location. We focus on equity funds and balanced funds. Our sample includes 745,223 unique individual investor's trading records for 25 equity funds and 31 balanced funds.

4. Empirical Analysis

4.1.DID Tests: The More Costly To Trade, The More Trade?

The fee differences between banks and the fund family are not constant over time. Table 3 lists the real sales fees (front-end loads plus back-end loads) charged by ICBC, CCB and the fund family by year.[‡] There is a significant fee drop (0.55%) from 2007 to 2011 for the fees charged by ICBC (from 1.81% to 1.27%). In the meantime, the sales fees charged by the fund family stayed relatively stable (from 1.10% to 0.92%). Similarly, from 2014 to 2016, both ICBC and CCB raised their commissions for selling mutual funds, while the fund family decreased its sales fees dramatically (a 0.5% reduction).

The levels of fees charged by banks are likely to be correlated with the market conditions. The Chinese stock market experienced a crash in 2008 while it rose tremendously in 2015, which coincided with the times of the two major fee adjustments made by banks. The fund family started to reduce sales charges after the regulators removed the minimum frond-end loads requirement (0.6%) in 2014. This allows us to examine the effect of bank staff on investors' trading behavior using a difference in differences (DID) test. Bank's account managers' incentive to sell mutual funds is linked to the amount of the sales commissions they can receive. Therefore, they are

[‡] The nominal sales fees of mutual funds are fairly constant. However, different distribution channels sell funds with different discounts.

expected to be more motivated to encourage investors to trade more when sales commissions are higher. For the bank channel, we expect that the fee decline in 2008 and 2009 would have a negative effect on investors' turnover, while the fee increase in 2015 would have a positive effect on investors' turnover. Investors who trade through the fund family's platform serves as a perfect control group since the fund family is unlikely to have an incentive to induce more trading from investors.

Specifically, we estimate the following equation:

$$\text{Turnover}_{i,t} = \text{b}_1 + \text{b}_2\text{D}_{\text{post}} + \text{b}_3\text{D}_{\text{bank}} + \text{b}_4\text{D}_{\text{post}} * \text{D}_{\text{bank}} + b_5 * Controls_i + \epsilon_{i,t} \quad (1)$$

where $Turnover_{i,t}$ is investor i's turnover in year t, D_{post} is a dummy variable which equals to 1 if year-investor observations are in 2011 or 2016 (after the bank's sales commissions change) and 0 otherwise, D_{bank} is a dummy variable which equals to 1 if investors trade through banks and 0 otherwise, and $D_{post} * D_{bank}$ is an interaction term between D_{post} and D_{bank}. Control variables in this regression include, *Age,* investor's age; Gender, a dummy variable which equals to 1 if the investor is a male and 0 otherwise; Max_aum, investors' maximum financial assets invested into the fund family, Invest_time, the time horizon since the investor's first investment into the fund family.

Table 4 reports the regression results for equation (1). Panel A presents how investors' turnover had changed after the fee decrease for CIBC from 2007 to 2011 compared to

the turnover change of investors who trade through the fund family's platform. Columns (3) and (4) only include investors who trade in both 2007 and 2011. Columns (2) and (4) consider investors whose maximum holding is more than RMB 500 to exclude dormant accounts. Consistent with our hypothesis, the coefficient b_4 is negative and significant. After a fee reduction for ICBC, investors' turnover decreased approximately 14% more than the turnover of investors who trade through the fund family's platform. This implies that the bank staff's incentive may play a role here. After a significant sales commissions' reduction, they may exert less effort to encourage investors to trade more. The coefficient of *Age* is negative and significant, suggesting that elderly investors trade less. The coefficient of *Gender* is positive and significant, suggesting that male investors trade more than female investors. This is consistent with Barber and Odean (2001)'s finding that men are more overconfident than women. The coefficient of Invest_time is positive and significant, suggesting that investors who have longer investment experience would trade more frequently.

Panel B (C) presents how investors' turnover had changed after the fee decrease for CIBC (CCB) from 2014 to 2016 compared to the turnover change of investors who trade through the fund family's platform. Columns (3) and (4) only include investors who trade in both 2007 and 2011. Columns (2) and (4) only consider investors whose maximum holding is more than RMB 500 to exclude dormant accounts. Consistent with our hypothesis, the coefficient b_4 is positive and significant in both Panel B and Panel C. After a fee increase for ICBC or CCB, investors' turnover increased more than the

turnover of investors who trade directly through the fund family's platform. Again, this implies that bank staff's incentive plays a role here. After a significant sales commissions' increase, they may exert more effort to encourage investors to trade more.

One caveat is that DID tests require an underlying assumption that investors who trade through banks have similar reactions to the changing market conditions as those trading through the fund family platform. To relieve this concern, in the next subsection, we examine the trading behavior change of the same batch of investors before and after they switch to the fund family's platform or third party platforms from banks.

4.2. Switchers

4.2.1. Investors Switching to The Fund Family Platform from Banks

As mentioned above, there are four major distribution channels for mutual funds: 1) directly trade through the fund families' platforms, 2) banks, 3) securities firms, or 4) fund sales companies. Other than the possible effect of bank staff, investors' characteristics, such as age, income, risk preferences, and gender, may also matter for their trading patterns. To control for investors' characteristics, we examine the same batch of investors' turnover changes after they switch their trading channels.

In our sample, most investors only trade through one of the four aforementioned channels. While 717,253 investors stay with the same channel, only 28,050 (3.8%) investors trade through more than one channels. Out of the investors who switched

channels, 1,115 investors switched from banks to the fund families' platform once and for all. We track these 1,115 investors' trading behavior and compare their turnovers before and after switching. Table 2 reports the results. The difference in turnover is not significant when considering all 1,115 investors. However, after excluding investors who only trade 7 times or less, the turnover after switching to the fund family's platform (43%) becomes significantly lower than the turnover before switching (49%) at 5% significance level. When only including investors who trade more than 10 times, the difference in turnover becomes significant at all conventional levels. This is consistent with our hypothesis that investors may be induced into overtrading by bank staff.

Before switching, these investors trade through different banks. We divide these investors into two groups based on the trading fees charged by banks: one group of investors switches from ICBC to the fund family's platform (672 investors), the other group of investors switches from banks charging higher fees than ICBC (514 investors). Then we examine their trading behavior before and after switching separately.

Table 5 reports the results. We find that compared to investors switching from banks charging higher fees than ICBC, investors switching from ICBC trade less before switching, but trade more after switching. If different banks indeed attract different clienteles, the comparison of investors' turnover after switching to the fund family's platform suggests that investors switching from banks charging higher fees than ICBC are less frequent traders compared to investors switching from ICBC. However, before

switching to the fund family's platform, they trade more frequently than investors switching from ICBC, which may be a result of banks' account managers' persuasion. This is consistent with our hypothesis that higher commissions motivate bank staff to exert greater effort to persuade investors to trade more excessively.

4.2.2. Investors Switching to The Third-Party Online Trading Platforms trom Banks

In this subsection, we examine investors' trading pattern changes after they switch to the third party trading platforms (Tiantian Fund in particular) from banks. According to Securities Daily in 2016, after the first batch of 4 institutions were approved by China Securities Regulatory Commission in 2012, the number of independent fund sales companies has increased dramatically to 86 in 4 years. Among these 86 fund sales companies, Tiantian fund was ranked number one both in terms of sales and number of funds offered on its website. Tiantian Fund is one of the first batch of independent fund sales organizations approved by the China Securities Regulatory Commission in February, 2012. According to survey data from Baidu in 2008, about 40% of mutual fund investors obtained information through Tiantian Fund website, which was ranked as the most visited and the most influential mutual fund website in China. Tiantian Fund has grown rapidly in recent years. The number of funds available to purchase on Tiantian Fund's website has grown rapidly from 681 (offered by 41 fund families) in 2012 to 5366 (offered by 121 fund families) in 2017. While its sales of mutual funds did not even pass RMB 0.1 billion in 2012, it reached a whopping RMB 0.7 trillion in 2015.

Among these 7,104 investors, 6,136 switched to Tiantian Fund from banks in 2017. While the existing literature documents that men trade more than women, interestingly, we find that there is no significant difference (with a p-value of 0.58) between men and women's turnover prior to switching. After switching to Tiantian Fund, the difference between men and women's turnover becomes significant again (with a p-value of 0.003). This is consistent with Lewellen, Lease, and Schlarbaum (1977)'s finding that female investors are likely more susceptible to the persuasion of bank account managers.

5. Conclusion

There is a long-lasting concern that financial intermediaries' incentives may be distorted by the fees received from investors. After analyzing a proprietary individual-account level data from a major fund family in China, we document a case in which financial intermediaries magnify investors' behavioral bias (overtrading in particular) because of conflict of interest. While banks are the dominant distribution channels for mutual funds, they charge the highest purchase fees. More importantly, our empirical evidence suggests that bank staff are motivated by the high sales commissions to induce investors to trade excessively.

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Table 1. Front-end Loads and Back-end Loads Charged by Different Channels

Distribution Channels	Front-end Loads (purchase fee rate)	Back-end Loads (redemption fee rate)
Fund Family (direct purchase)	0.30%	0.52%
Banks	1.24%	0.40%
Securities Firms	0.99%	0.35%
Third Party Electronic Platforms (Fund Sales Companies)	0.39%	0.57%

Table 2. The Turnover of Investors Who Switched from Banks to the Fund Family's Online Platform

		Number of Trades (N)						
Turnover	All	N <=5		N >5	N >7		N >10	
Banks	0.51	0.54		0.50	0.49		0.48	
the Fund Family	0.54	0.71		0.47	0.43		0.38	
Diff	-0.03	-0.16	***	0.03	0.06	**	0.10	***
P-value	0.90	0.00		0.13	0.03		0.00	
Observations	1115	362		753	626		479	

Table 3. The Real Sales Fees (Front-End Loads Plus Back-End Loads) Charged by ICBC, CCB and the Fund Family

Year	ICBC	the Fund Family	CCB
2005	1.71%		
2006	1.82%	1.12%	
2007	1.81%	1.10%	
2008	1.67%	1.10%	1.96%
2009	1.41%	1.05%	1.54%
2010	1.30%	0.93%	1.54%
2011	1.27%	0.92%	1.59%
2012	1.28%	1.00%	1.61%
2013	1.30%	1.19%	1.65%
2014	1.35%	1.04%	1.68%
2015	1.56%	0.97%	1.91%
2016	1.57%	0.54%	1.76%
2017	1.45%	0.43%	1.67%

Table 4. Regression Results for DID Tests

This table reports the regression result for the DID tests in equation (1). The dependent variable is *Turnover*. The independent variables include D_{post}, a dummy variable which equals to 1 if year-investor observations in 2011 or 2016 (after the bank's sales commissions change) and 0 otherwise; D_{bank}, a dummy variable which equals to 1 if investors trade through banks and 0 otherwise; and $D_{post} * D_{bank}$, an interaction term between D_{post} and D_{bank}. Control variables in this regression include, *Age,* investor's age; Gender, a dummy variable which equals to 1 if the investor is a male and 0 otherwise; Max_aum, the maximum financial assets invested into the fund family, Invest_time, the time horizon since the investor's firm investment into the fund family. Columns (2) and (4) consider investors whose maximum holding is more than RMB 500 to exclude dormant accounts. Robust t-statistics are in parentheses. Asterisks indicate significance levels: * = 10%, ** = 5%, and *** = 1%.

Panel A. The effect of a fee decline for ICBC from 2007 to 2011

Columns (3) and (4) only include investors who trade in both 2007 and 2011. Columns (2) and (4) consider investors whose maximum holding is more than RMB 500 to exclude dormant accounts.

VARIABLES	(1)	(2)	(3)	(4)
D_{post}	0.111***	0.118***	-0.381***	-0.386***
	(2.69)	(2.82)	(-9.585)	(-9.596)
D_{bank}	-0.0114	-0.0127	0.198***	0.194***
	(-0.952)	(-1.059)	(5.90)	(5.75)
D_{post}*D_{bank}	-0.168***	-0.180***	-0.144***	-0.140***
	(-4.048)	(-4.295)	(-3.375)	(-3.232)
Age	-3.92e-05***	-4.00e-05***	-6.42e-05***	-6.42e-05***
	(-6.931)	(-7.163)	(-3.381)	(-3.382)
Gender	0.0352***	0.0348***	0.0203	0.0204
	(8.82)	(8.74)	(1.18)	(1.18)
Max_aum	6.04e-08***	6.01e-08***	-1.51e-07***	-1.51e-07***
	(3.21)	(3.21)	(-3.328)	(-3.333)
Invest_time	0.147***	0.150***	0.186***	0.186***
	(44.07)	(45.02)	(14.55)	(14.55)
Constant	-0.830***	-0.863***	-1.311***	-1.308***
	(-22.83)	(-23.71)	(-9.399)	(-9.378)
Observations	87,603	87,397	4,634	4,632
R-squared	0.053	0.056	0.231	0.231

Panel B. The effect of a fee increase for ICBC from 2014 to 2016

Columns (3) and (4) only include investors who trade in both 2014 and 2016. Columns (2) and (4) consider investors whose maximum holding is more than RMB 500 to exclude dormant accounts.

VARIABLES	(1)	(2)	(3)	(4)
D_{post}	-0.710***	-0.710***	-0.687***	-0.687***
	(-26.48)	(-26.48)	(-14.30)	(-14.30)
D_{bank}	-0.356***	-0.356***	-0.234***	-0.234***
	(-14.80)	(-14.80)	(-5.175)	(-5.188)
$D_{post}*D_{bank}$	0.419***	0.419***	0.258***	0.258***
	(15.02)	(15.02)	(4.977)	(4.961)
Age	-7.76e-05***	-7.76e-05***	-8.97e-05**	-8.91e-05**
	(-9.588)	(-9.588)	(-2.140)	(-2.123)
Gender	0.0641***	0.0641***	0.0386*	0.0392**
	(9.207)	(9.207)	(1.930)	(1.962)
Max_aum	-7.73e-09**	-7.73e-09**	-9.25e-09	-8.95e-09
	(-1.981)	(-1.981)	(-0.549)	(-0.531)
Invest_time	-0.0727***	-0.0727***	-0.0412***	-0.0411***
	(-63.15)	(-63.15)	(-13.51)	(-13.46)
Constant	1.620***	1.620***	1.332***	1.331***
	(66.52)	(66.52)	(29.67)	(29.64)
Observations	54,117	54,117	7,292	7,286
R-squared	0.098	0.098	0.113	0.114

Panel C. The effect of a fee increase for CCB from 2014 to 2016

Columns (3) and (4) only include investors who trade in both 2014 and 2016. Columns (2) and (4) consider investors whose maximum holding is more than RMB 500 to exclude dormant accounts.

VARIABLES	(1)	(2)	(3)	(4)
D_{post}	-0.797***	-0.797***	-0.682***	-0.682***
	(-28.78)	(-28.78)	(-13.97)	(-13.97)
D_{bank}	-0.329***	-0.329***	-0.369***	-0.370***
	(-12.38)	(-12.38)	(-8.351)	(-8.369)
D_{post}*D_{bank}	0.237***	0.237***	0.275***	0.275***
	(8.181)	(8.181)	(5.281)	(5.275)
Age	-0.00255**	-0.00255**	-0.00271***	-0.00285***
	(-2.343)	(-2.343)	(-3.313)	(-3.470)
Gender	0.0627***	0.0627***	-0.0139	-0.0155
	(6.511)	(6.511)	(-0.776)	(-0.864)
Max_aum	-5.75e-09	-5.75e-09	-1.54e-08	-1.48e-08
	(-0.999)	(-0.999)	(-1.077)	(-1.040)
Invest_time	-0.132***	-0.132***	-0.0762***	-0.0757***
	(-42.07)	(-42.07)	(-13.90)	(-13.81)
Constant	2.013***	2.013***	1.623***	1.626***
	(42.26)	(42.26)	(27.77)	(27.77)
Observations	32,259	32,259	6,286	6,256
R-squared	0.107	0.107	0.137	0.138

Table 5. Switchers' turnover distributions before and after switching to the fund family's platform

		Before switching				After switching			
	obs	mean	p25	median	p75	mean	p25	median	p75
ICBC	672	0.94	0.12	0.32	1.07	0.89	0.16	0.46	1.01
Banks charging higher fees than ICBC	514	1.05	0.14	0.42	1.11	0.72	0.12	0.33	0.9