Consumption out of Investment Proceeds under Limited Attention

Guodong Chen[*], Xiaomeng Lu[†], Yiqing Lü[‡], and Michaela Pagel[§]

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Abstract

This paper studies how individual attention to investments affects consumption out of investment gains. We leverage granular account-level data of 200,000 active investors from a leading mobile payment platform. The platform connects mutual fund investments with expenditure records of investors. We find that investments that attract more attention elicit a greater consumption response. We first show that the marginal propensity to consume (MPC) out of capital gains is larger for more recent investments and better-performing ones. This heterogeneity in MPCs across investments suggests that selective attention may render money non-fungible for investors. We then exploit two quasi-experiments that introduce exogenous variations in what funds are displayed. First, the platform's default setting presents the fund that was most recently acquired by investors at the top of their fund holding page. Additionally, mutual funds from the same fund company as the recently invested fund, even if the former were acquired a long time ago, will be grouped together with the recently invested fund in a single block. We show that investors' consumption response is stronger to investment proceeds of the funds that were from the same fund company as the recently invested fund than funds that were not. Second, we exploit a change in the display setting on the platform that allowed investors to sort their portfolio funds based on holding period performance. We find that after the change, the difference in consumption response to gains from top-performing funds relative to worse-performing funds is more pronounced.

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[*]New York University Shanghai; gdchen@nyu.edu

[†]FISF, Fudan University; xiaomenglu@fudan.edu.cn

[‡]New York University Shanghai; yiqing.lu@nyu.edu

[§]Washington University in St. Louis Olin Business School, NBER, and CEPR; mpagel@wustl.edu.

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1 Introduction

Understanding the consumption-wealth effects of financial assets is crucial. Consumption is a key driver of economic activity, and changes in consumption patterns can have significant repercussions on overall economic performance. Financial assets typically account for a substantial portion, ranging from 10% to 30%, of household wealth (Guiso and Sodini, 2013). By comprehending how fluctuations in asset values and returns impact consumers' spending habits and saving decisions, policymakers and analysts can better anticipate and respond to economic shifts. The recent micro- and macroeconomics literature has emphasized the heterogeneity in marginal propensities to consume (MPCs) across economic agents, which provides important insights into the distributional effects of aggregate fiscal and monetary shocks. In this paper, we examine the impact of selective attention on retail investors' MPCs out of their mutual fund investments' capital gains.

The notion that investors possess limited attention span should not be controversial. Individuals are presented with diverse forms of information on a daily basis, and the innovation in financial technology introduces an even greater multitude of information sources than ever before. A wealth of information may create a poverty of attention. Which form of information individuals act upon is, hence, largely determined by which information they choose to pay attention to. Consumption decisions out of investment are no exception. We use account-level information from a leading mobile payment platform in China that intermediates individuals' investments and spending to examine the dynamics between investments' capital gains and consumption following Gargano and Rossi (2018), who look at how selective attention affects investment performance, and Loos et al. (2020) who link sales of investments and spending, but without direct variation in attention.

Behavioral research, such as the studies by Kahana (2012a) and Bordalo et al. (2012, 2013, 2020), suggests two important sources that lead to selective attention: memory and salience. Memory plays a crucial role in shaping what information is readily available to investors, influencing their decision-making processes by highlighting past experiences and learned patterns. Salience, on the other hand, pertains to the prominence of certain information or events, drawing investors' focus to the most noticeable aspects. These factors contribute to selective attention, affecting how investors

process information and make financial decisions.

In this paper, we utilize a novel dataset of 200,000 active investors in 2019 and 2020. Our data captures investors' monthly trading and consumption activities. We measure individuals' selective attention to different funds in two ways: First, through recency that is captured by investments made within the last month versus earlier investments. Second, through top performers that is captured by the ranking of a fund being the top in terms of cumulative performances versus other worse-performing funds in each investor's portfolio. We show that monthly investment proceeds from recently invested funds attract a larger consumption response than those from funds invested earlier. In addition, investment proceeds from top-performing funds lead to greater consumption responses than proceeds from worse-performing funds. The heterogeneity in MPCs across investments suggests that selective attention may render money non-fungible for investors.

While recency is likely more troubled by endogeneity concerns than the status as the top-performing fund, we go on to exploit two quasi-experimental settings that further support a causal interpretation of the above findings. First, the platform's default setting presents the fund that was most recently acquired by investors at the top of their fund holding page. Additionally, mutual funds from the same fund company as the recently invested fund, even if the former were acquired a long time ago, will be grouped together with the recently invested fund in a single block. This rule introduces plausibly exogenous variation in attention paid to funds that were from the same fund company as the recently invested fund and funds that were not. Consistent with the recency effect, we further show that investors' consumption response is stronger to investment proceeds of the funds that were from the same fund company as the recently invested fund than funds that were not.

Second, we exploit a change in the display setting on the platform. In July 2020, the platform introduced a change that allowed investors to customize the display view of ordering their invested funds. While investors retain the option to adhere to the previous default setting based on the recency of the investments, they can sort their portfolio funds based on holding period performance instead after July 2020. In turn, we find that, after the change, the consumption response to proceeds from top-performing funds relative to worse-performing funds are more different, echoing

our story about the attention-induced MPCs.

Investors may hold multiple funds at the same time, which may limit investors' attention allocated to each fund. We analyze how attention affects investors differently based on the number of funds they hold. We find that the distinction in the consumption responses to proceeds from recent versus earlier investments and to proceeds from top-performing versus other investments mainly exist among investors who hold more funds. These findings further confirm the effect of attention in creating heterogeneous responses in consumption to different investments.

To establish robustness, we first examine consumption responses to cumulative proceeds in addition to monthly proceeds of mutual fund investments, as the platform displays investment outcomes in the form of cumulative proceeds. In addition, we further examine heterogeneous responses to positive proceeds versus negative proceeds in both settings. Lastly, we examine consumption in different categories (online versus offline spending). In all tests, we find qualitatively similar results.

The remainder of this paper is organized as follows. Section 2 presents a literature review. Section 3 describes the data and the institutional background. Section 4 presents the main results in this paper. Section 5 further shows the identification strategies and respective results. Section 6 presents a couple of robustness checks. Section 7 concludes the paper.

2 Literature review

The behavioral finance literature has shown that retail investors pay more attention to capital gains rather than losses and explored the implications of selective attention for trading behavior (Karlsson et al., 2009; Golman et al., 2017; Olafsson and Pagel, 2017; Gargano and Rossi, 2018; Andries and Haddad, 2020; Quispe-Torreblanca et al., 2020, 2021; Birru et al., 2019; Huang et al., 2024). Despite this maturing literature, it remains an open question whether attention also affects investors' consumption and savings.

In this paper, we follow Loos et al. (2020) who exploit a German tax reform that affected the displayed purchase prices in investors' online portfolios and document that individuals sell "fictitious" winners, i.e., losers with respect to the original purchase price, displayed as winners

after the reform and that investors increase their consumption in response to such liquidations. While Loos et al. (2020) focus on the change in displayed purchase prices, we focus more directly on changes in the ordering of funds in investors' portfolios that are likely to induce changes in attention.

Our study demonstrates that behavioral biases in trading impact individual consumption out of mutual fund and other risky asset markets wealth. Since risky asset markets wealth constitutes a significant portion of household net worth (about one-quarter) and consumption represents the largest component of GDP (Campbell, 2006; Poterba, 2000; Di Maggio et al., 2020), understanding the relationship between behavioral biases in trading and consumption is important. Additionally, our results establish that behavioral biases in trading directly affect utility through consumption, rather than only indirectly through wealth.

We thus contribute to the literature on consumption out of risky asset markets wealth, which includes studies employing aggregate and regional variations (e.g., Davis and Palumbo (2001), Dynan and Maki (2001), and Case et al. (2005)).[1] There also exist studies employing household-level data. Baker et al. (2007) use CEX data and show that withdrawals that are likely used for consumption respond strongly to changes in dividend payments but not to changes in stock prices. They also provide suggestive evidence that this behavior is driven by mental accounting. Furthermore, Di Maggio et al. (2020) obtain the same findings using annual household consumption and asset holdings data from the Swedish wealth registry. Imas et al. (2022) finds that individuals increase their consumption shortly after experiencing large positive and negative wealth shocks. There also exists a small literature on investors as consumers showing that advertising products to investors increases demand for the corresponding stocks (Lou, 2014), company earnings announcements generate retail foot traffic (Noh et al., 2021), and individual stock ownership increases spending at the corresponding companies' stores (Medina et al., 2021). Finally, our paper contributes to the literature examining the link between capital gains, cash flows, consumer sentiment, and consumption (Parker, 1999, 2015; Agarwal et al., 2007; Jappelli and Pistaferri, 2010; Olafsson and Pagel, 2018; Meyer et al., 2018; Gillitzer and Prasad, 2018).

[1] See Poterba (2000) for a survey of the literature.

3 Data and Institutional Background

We obtained our data from Alipay, which is a third-party mobile and online payment platform established by Alibaba Group in 2004. In 2013, Alipay overtook PayPal as the world's largest mobile (digital) payment platform. As of June 2020, Alipay serves over 1.3 billion users and 80 million merchants (Hong Kong Exchange News, October 20, 2020). By the fourth quarter of 2018, Alipay had approximately 55% share of the third-party payment market in mainland China. Along with WeChat, Alipay has been described to be China's super-app with a wide range of functionalities, including ride-sharing, travel booking, medical appointments, and, more relevantly, mutual fund investing. In terms of mutual fund types, Alipay's investment platform (Ant Fortune) carries diverse fund asset classes, including money market, bond, mixed, equity, index, Qualified Domestic Institutional Investor (QDII), and gold funds.

Some Alipay users allocate only a very modest amount in mutual funds, resulting in limited capital gains. Thus, we restrict the sampling of investors to Alipay users who had a total mutual fund holding amount exceeding 10,000 RMB at the outset of 2019. We then randomly selected 200,000 users from this group of investors from January 2019 to December 2020. We collected data on investors' personal characteristics, monthly mutual fund investments, and monthly consumption for these investors. Variables are winsorized at the 0.5 and 99.5 percentiles. The data on investors' personal characteristics includes their gender, resident city, age, and whether they work in their resident city. We also obtain information about investors' self-reported "risk level" obtained from surveys as required by the China Securities Regulatory Commission (CSRC). According to Panel A in Table 1, we have 61% male investors, with an average age of 38 and self-reported risk level of 3 out of a 0 to 5 range.[2]

[Insert Table 1]

For consumption activities, we obtain the monthly consumption value made through Alipay, which can be further disaggregated into consumption made on Taobao (an online shopping platform operated by Alibaba) or not. Taobao consumption can be further separated following two

[2]Based upon a series of questions regarding investment choices and attitudes, the system will assess each investor's risk level scaled from 0 to 5. 0 indicates most risk averse and 5 least risk averse.

criteria: "Service payment", "Durable payment", and "Non-durable payment"; or "Basic payment", "Development payment", and "Leisure payment". Consumption from non-Taobao sources does not differentiate consumption categories. According to Panel B in Table 1, the average monthly spending is about 6,601 RMB, with Taobao spending of 1,771 RMB and non-Taobao spending of 5,530 RMB.[3] Among Taobao spending, the average monthly service spending is 58 RMB, while the average monthly spending on durable and nondurable goods is 460 RMB and 544 RMB, respectively. When looking at the alternative classification, basic consumption accounts for 53 RMB, and development and leisure account for 185 RMB and 404 RMB per month, respectively. Regarding mutual fund investment activities, we obtain detailed purchase and redemption transactions made by each investor each month for each product on the Ant Fortune investment platform. We also obtain the detailed monthly product-level holding and capital gains. For the purpose of our study, we focus primarily on capital gains as well as capital gains and dividends. Here, dividends from actively managed mutual funds are discretionary payments from the mutual fund management. In contrast, dividends from index funds can be viewed as a pass-through of dividends from stocks at a predetermined frequency. As reported in Panel C of Table 1, the average mutual fund holding is 87,473 RMB (with a median of 38,896 RMB). The monthly net flow is 24,219 RMB on average (with a median of 2,000 RMB). The average number of funds held by each user each month is about 10 (with a median of 6). We then classify these funds into top-performing funds and other funds based on their cumulative returns each month. Panel B shows that the average monthly capital gains are 668 RMB (701 RMB if also including the dividends) for the top-performing fund and 1,007 RMB (1,069 RMB if also including the dividends) for other worse-performing funds combined. When classifying funds based on the timing of investments, we find recent investments made within one month have an average monthly capital gain of 646 RMB (and 686 RMB if also including the dividends). For investments made earlier, the average monthly capital gain is 1,014 RMB (1,069 RMB if the dividends are also included).

This study was remotely conducted on the Ant Open Research Laboratory in an Ant Group Environment. All data was sampled, desensitized, and analyzed on the Ant Open Research Lab-

[3]We omit the starting month of the sample (i.e., January 2019) when reporting the summary statistics as it is not used in the regression analysis due to the lagged construction of repressors.

oratory. The laboratory is a sandbox environment where the authors can only remotely conduct empirical analysis, and individual observations are invisible. The main regression variables include basic variables, investment variables, and consumption variables.

4 Main Results

4.1 Recently Acquired Funds

Our primary focus lies in understanding the impact of investor selective attention on their propensity to use capital gains for consumption. In essence, we posit that investors exhibit a heightened sensitivity to the proceeds generated by funds they pay more attention to. Consequently, we conjecture that they will allocate a larger portion of these proceeds toward consumption. To gauge investor selective attention, we employ two proxies: the recency of their investments and the performance ranking of funds within their investment portfolios.

Insights from the field of psychology regarding memory indicate that individuals tend to give more weight to recent experiences (Kahana, 2012b). In a financial market context, Jiang et al. (2023) have documented that investors tend to recall their recent experiences in exercises like free recall. As investors are subject to limited attention capacity, they are more likely to allocate more attention to investments made more recently and, consequently, possess greater awareness of performance associated with more recent investments. Hence, we conjecture that MPC, out of proceeds from a recently invested mutual fund, can have a more pronounced effect than an investment made in the more distant past.

To test this hypothesis, we divide capital gains into two distinct components for each investor and each month: recent investments made within the prior month and investments made earlier than the previous month. We then aggregate capital gains separately for each type of fund and analyze the response of total consumption to the capital gains of the two types of month in the subsequent month. To do so, we employ the following two regression models:

$$Consumption_{i,t} = \alpha + \beta_1 \ CG^{Recent}_{i,t-1} + \ \beta_2 \ CG^{Earlier}_{i,t-1} + Controls + \epsilon_{i,t} \tag{1a}$$

$$Consumption_{i,t} = \alpha + \beta_1 \ (CG + DIV)^{Recent}_{i,t-1} + \ \beta_2 (CG + DIV)^{Earlier}_{i,t-1} + Controls + \epsilon_{i,t}, \tag{1b}$$

where $Consumption_{i,t}$ is total consumption spent by investor i in month t. $CG^{Recent}_{i,t-1}$ stands for capital gains/losses in month $t-1$ generated from the mutual funds purchased in the past one month by investor i. $CG^{Earlier}_{i,t-1}$ stands for capital gains/losses on past investments purchased before the last month. If the investors purchase a fund multiple times, we consider the most recent purchase time. Similarly, $(CG + DIV)^{Recent}_{i,t-1}$ and $(CG + DIV)^{Earlier}_{i,t-1}$ refer to the total proceeds, i.e., the sum of capital gains and dividends from recent or earlier investment, respectively. We also control for the total amount of mutual funds held and the number of funds held. Investor and year-month fixed effects are included in all specifications.

[Insert Table 2]

Table 2 presents our regression analyses, revealing a noteworthy distinction in the consumption response to proceeds from recent versus earlier investments. As demonstrated in column (2), a 100 RMB increase in capital gains from recent investments results in a 1.45 RMB increase in consumption in the subsequent month. Conversely, a 100 RMB increase in capital gains from earlier investments yields only 1.02 RMB additional consumption. We find similar patterns when considering total proceeds that also include dividends in columns (3) and (4). Specifically, column (4) shows that a 100 RMB increase in total proceeds from recent investments leads to a 1.46 RMB increase in consumption the following month. In contrast, an equivalent gain from earlier investments contributes only 0.99 RMB additional consumption. Overall, we find that MPC out of proceeds of recently invested mutual funds is greater than that of an earlier investment. In the context of our study, the default display mode of mutual funds held by investors is by investment time, with the most recently acquired fund occupying the top position. This display arrangement naturally encourages investors to allocate greater attention to the funds they have most recently purchased.

4.2 Top-performing Funds

In this subsection, we explore selective attention paid to the top-performing funds within investors' portfolios and investigate whether proceeds from these funds cause greater consumption responses. In the psychology literature, it is widely acknowledged that extreme ranks are inherently salient and captivating and play a pivotal role in decision-making (see Diecidue and Wakker (2001) and Wakker (2010) for a comprehensive literature review). For instance, rank-dependent utility models, such as cumulative prospect theory introduced by Tversky and Kahneman (1992), propose that the order in which payoffs are ranked significantly affects their perceived importance. In light of the literature that finds an ostrich effect of poor performance on investors' attention, we conjecture that top-performing funds stand out as the most attention-grabbing. To determine the top-performing fund, we rank all the funds held by an investor each month by their cumulative returns. The top-performing fund is determined as the one with the highest cumulative return. We also employ two regression models with a similar structure as Equations (1a) and (1b):

$$Consumption_{i,t} = \alpha + \beta_1\ CG^{Top}_{i,t-1} +\ \beta_2\ CG^{Other}_{i,t-1} + Controls + \epsilon_{i,t} \tag{2a}$$

$$Consumption_{i,t} = \alpha + \beta_1\ (CG + DIV)^{Top}_{i,t-1} +\ \beta_2 (CG + DIV)^{Other}_{i,t-1} + Controls + \epsilon_{i,t}, \tag{2b}$$

where $CG^{Top}_{i,t-1}$ stands for capital gains from the top-performing fund in month t, $CG^{Other}_{i,t-1}$ for capital gains from the remaining funds. Similarly, $(CG + DIV)^{Top}_{i,t-1}$ and $(CG + DIV)^{Other}_{i,t-1}$ stand for the total proceeds including also dividends from top-performing and other funds, respectively.

[Insert Table 3]

Table 3 presents the results. We find that consumption responds more to proceeds generated by top-performing funds than to other funds. Column (1) shows that a 100 RMB capital gain from top-performing funds leads to a 3.34 RMB increase in consumption next month. In contrast, the same magnitude of increase in capital gain from other funds results in merely 1.12 RMB additional consumption. In column (2), after accounting for factors such as holdings and the number of funds

held by individual investors, we still find a pronounced difference in consumption sensitivity. This pattern persists when considering total proceeds, as demonstrated in columns (3) and (4). For example, according to column (3), a 100 RMB increase in total proceeds from top-performing funds leads to an additional 3.28 RMB in consumption. In comparison, the same amount of proceeds from poorer-performing investments causes only 1.13 RMB of additional consumption.

To summarize, we find that proceeds from investments that likely attract greater investor attention generate a greater MPC than other funds do, suggesting selective attention in causing the heterogeneity in MPC across invested assets and over time series.

5 Identification

In the previous section, we interpret the recency and the top performer effects as investors' selective attention, causing varying consumption responses. Such an interpretation, however, could be confounded by other factors. For example, investor sentiment may cause them to invest and consume simultaneously. In this section, we exploit two quasi-experimental settings associated with the display rules of the fund holding page on the Ant Fortune platform to provide causal evidence for our interpretation.

5.1 Group-based Display Rule

During our sample period, the group-based display rule on Ant Fortune presents the fund that investors most recently acquired at the top of their fund holding page. Additionally, funds from the same fund company are grouped together in a single block. This unique display rule introduces plausibly exogenous cross-sectional variations in attention paid to earlier invested funds under each investor's portfolio. To illustrate this rule, suppose an investor holds three funds: A, B, and C. A is purchased by the investor most recently in the last month. B and C were purchased before A at some time before last month. Suppose the same fund company issues A and C. According to the group-based display rule, after the investor purchases A, A will be exhibited on top of the investor's fund holding page, and C will be exhibited below it. Finally, B will be shown below C. We consider

fund C here as an earlier investment that garners higher attention than B due to the display rule.

Following a regression specification akin to Equations (1a) and (1b), we explore how total consumption reacts to earlier capital gains with high attention versus low attention while controlling for proceeds from recent investment. If our hypothesis holds true—that investors' MPC is influenced by their attention to capital gains—we anticipate observing a stronger MPC stemming from earlier investments with high attention than from earlier investments with low attention. We report our analysis in Table 4.

[Insert Table 4]

Across all columns, we find evidence supporting our conjecture. According to Column (2) in Table 4, a 100 RMB increase in proceeds from earlier investments attracting high attention results in an additional consumption of 1.88 RMB in the subsequent month, whereas an equivalent amount of capital gain from earlier investments with low attention yields only 1.03 RMB additional consumption. When we consider investors' consumption response to total proceeds, including also dividends, Column (4) shows MPCs of 2.01% and 1.01% for high and low-attention funds, respectively. Thus, our findings based on the group-display rule suggest the role of selective attention in creating heterogeneity in MPC across different investments by individuals.

5.2 Display Enabling Discretion in Sorting Holding Funds

Before July 2020, mutual funds held by investors were arranged based on the order of purchase, as explained in the preceding section. However, in July 2020, Alipay introduced a change that allows investors to customize the ranking of their holding funds. While investors can retain the option to adhere to the previous default setting, they were also granted the discretion to sort their portfolio funds according to holding period cumulative returns, daily returns, holding period cumulative proceeds, daily, or the timing of NAV information updates for each fund. Investors could sort their portfolio according to one of these standards in either ascending (default) or descending order, providing them with greater flexibility. We hypothesize that following the adoption of the policy, some investors will be inclined to sort their funds in accordance with their individual preferences.

Considering that holding period return is a metric of particular interest to investors, we anticipate that, after the policy change, investors will be more prone to monitor the precise returns generated by their top-performing fund closely. Consequently, in comparison to other funds, the proceeds from the top-performing fund are expected to result in greater consumption.

To account for the incremental impact of top-performing and other investments subsequent to the change in the display setting, we construct a dummy variable After, which is equal to one if the month is July 2020 or after and zero otherwise. We include two interaction terms, Top performer proceeds×After and Other capital gains×After, in the regression specifications in Equation (2a) and (2b). If our hypothesis holds true, we anticipate that the coefficient for Top performer proceeds×After should be positive and that the coefficient should be greater in magnitude than that on Other capital gains×After. Table 5 presents the results.

[Insert Table 5]

The findings presented in Table 5 align closely with our hypothesis. For example, Column (1) shows that prior to July 2020, a 100 RMB gain from the top-performing fund led to just a 1.03 RMB increase in consumption as opposed to 0.41 RMB for other funds. Following the change in display settings, a 100 RMB gain from the top-performing fund results in a 4.53 RMB increase in consumption than before. This finding implies that the top performer effect highlighted in Table 3 primarily emerges after the change in display settings that induced some investors to allocate their attention to the best performing funds.

In contrast, for other funds, although there is also an enhancement in consumption response, the difference is only 1.23 RMB, representing just one-fourth of the corresponding increase observed for top-performing funds (4.53 cents) after the policy change. A similar pattern emerges when examining the effect of total proceeds on consumption, as shown in Columns (3) and (4). In summary, the results from both settings confirm our initial hypothesis that the proceeds of funds that garner more attention from investors cause greater MPCs.

6 Further Analyses

6.1 Heterogeneous Effects: Attention Constrainedness

Investors could hold multiple funds at the same time, which may limit investors' attention allocated to each fund. We conjecture that investors' differential consumption responses to capital gains of recent and top-performing funds versus other funds should be stronger among more attention-constrained investors. We test this idea in Table 6.

[Insert Table 6]

We proxy investors' attention constrainedness with the number of funds they hold. We separate our sample investors into three tercile groups based on the number of funds held by each investor in the first month of the sample period. Investors in the upper tercile hold at least holding 7 funds, and those in the bottom tercile hold at most 4 funds. We run the baseline specifications of Equations and for the recency and top-performing effects in Panels A and B, respectively. We show the results for the upper tercile in Columns (1) and (3) and the bottom tercile in Columns (2) and (4).

Panel A indicates that the distinction in the consumption responses to proceeds from recent versus earlier investments mainly exists among investors who hold more funds. Consistently, Panel A shows that the distinction in the consumption responses to proceeds from top-performing versus other investments mainly exists among more attention-constrained investors. Thus, our findings further confirm the effect of attention in creating heterogeneous responses in consumption across different investments.

6.2 Consumption Response to Cumulative Capital Gains

It is common for trading APPs like Alipay to display investment performance in the form of cumulative proceeds rather than just those from the last month or the last three months. In this section, we further investigate the recency effect and the top-performer effect based on cumulative performance.

[Insert Table 7]

As shown in Panel A of Table 7, investors respond to both cumulative proceeds from recently invested and earlier invested funds, but the effect from recent investments is approximately twice as large as the effect from earlier investments. For the top-performer effect, Panel B shows that the consumption response to the cumulative proceeds of top-performing funds is approximately three to four times as big as that of proceeds from other funds. We, however, note that the coefficients reported in Table 6 cannot be interpreted directly as MPCs, as the constructions of consumption and capital gains are not at the same frequency of monthly flows.

6.3 Gains versus Losses

In this subsection, we explicitly distinguish gains and losses and further test whether there is any asymmetric consumption response to investment gains versus losses.

[Insert Table 8]

As shown in Table 8, investors exhibit heterogeneous responses to gains versus losses regarding the recency effect and the top-performing effect. More specifically, investors mostly respond to gains from both recently invested funds (high-attention) and low-attention counterparties, while the response is 0.3 cents per RMB stronger for the high-attention gains (25 percent higher). Meanwhile, when examining the top-performing effect, we show that investors only respond to top-performing fund investment gains (4.3 to 5.3 cents per RMB proceed), and there is no effect with losses or gains/losses from non-top-performing funds.

6.4 Taobao Consumption versus Non-Taobao Consumption

Taobao is the leading online shopping platform in China and is owned by Alibaba, the same parent company of Alipay. Our data contains detailed transaction records of each user's expenditures on Taobao. In this section, we examine disaggregated consumption on the Taobao platform and the remaining to understand whether the recency and top performer effects vary across consumption categories. The results are shown in Panel A and Panel B in Table 9, respectively.

[Insert Table 9]

The recency effect on Taobao versus non-Taobao consumption is consistent with our previous finding based on total consumption. Specifically, Columns (3) and (4) in Panel A in Table 9 show that Taobao consumption response from earlier capital gains is smaller (0.16 to 0.17 cents per RMB proceed) than that from recent capital gains (0.18 cents per RMB proceed). Columns (3) and (4) in Panel A in Table 9 show that a 100 RMB gain from the recently invested fund leads to 1.26 to 1.28 RMB additional non-Taobao consumption compared to the magnitude of 0.45 RMB for earlier invested funds. The smaller magnitude in Columns (1) and (2) than in those in Columns (3) and (4) is because Taobao consumption accounts for only roughly 20% of total consumption. When looking at the heterogeneity of the top-performing effect on Taobao versus non-Taobao consumption, Panel B in Table 9 indicates that the top-performer effect exists for both Taobao consumption (0.33 cents per RMB response to top-performer proceeds versus 0.10 cents per RMB response to other capital gains) and non-Taobao consumption (2.01 to 2.05 cents per RMB response to top-performer proceeds versus 0.59 to 0.61 cents per RMB response to other capital gains). Similar to the recency effect, the response is much stronger on non-Taobao consumption. Overall, findings in this subsection suggest that limited attention creates both online and offline varying consumption responses to capital gains. They further imply that the attention effect is not limited to impulse purchases such as online shopping.

7 Conclusion

This paper contributes to the expanding literature on the heterogeneity in the marginal propensity to consume (MPC) across economic agents by focusing on the impact of limited attention. Our findings reveal that individuals' limited attention to their investments' capital gains significantly influences their consumption responses. Contrary to the common view that money is fungible, the heterogeneity in MPCs suggests that limited attention renders money non-fungible for investors. We use variation in attention based on recency and top performers, and show that monthly investment proceeds from recently invested funds and top-performing funds attract larger consumption

responses.

We then further support the causal interpretation of these findings using two quasi-experimental. We first demonstrate that changes in the platform's display settings introduce exogenous variations in attention paid to specific funds. Additionally, we use a change in the platform's display settings that allowed investors to customize the ordering of their holdings according to performance. In a before-after DiD setting, we show larger consumption responses to proceeds from top-performing funds compared to worse-performing funds after the change.

Overall, this research sheds light on the intricate relationship between attention, investment decisions, and consumption behavior, providing valuable insights for both academics and practitioners in the field of economics and finance.

References

Agarwal, S., C. Liu, and N. S. Souleles (2007). The reaction of consumer spending and debt to tax rebates—evidence from consumer credit data. *Journal of Political Economy 115*(6), 986–1019.

Andries, M. and V. Haddad (2020). Information aversion. *Journal of Political Economy 128*(5), 1901–1939.

Baker, M., S. Nagel, and J. Wurgler (2007). The effect of dividends on consumption. *Brookings Papers on Economic Activity 2007*(1), 231–291.

Birru, J., F. Chague, R. De-Losso, and B. Giovannetti (2019). Attention and biases: Evidence from tax-inattentive investors. Charles A. Dice Center Working Paper 2019-22.

Bordalo, P., N. Gennaioli, and A. Shleifer (2012). Salience theory of choice under risk. *The Quarterly Journal of Economics 127*(3), 1243–1285.

Bordalo, P., N. Gennaioli, and A. Shleifer (2013). Salience and consumer choice. *Journal of Political Economy 121*(5), 803–843.

Bordalo, P., N. Gennaioli, and A. Shleifer (2020). Memory, attention, and choice. *The Quarterly Journal of Economics 135*(3), 1399–1442.

Campbell, J. Y. (2006). Household finance. *Journal of Finance 61*(4), 1553–1604.

Case, K. E., J. M. Quigley, and R. J. Shiller (2005). Comparing wealth effects: The stock market versus the housing market. *Advances in Macroeconomics 5*(1).

Davis, M. A. and M. G. Palumbo (2001). A primer on the economics and time series econometrics of wealth effects. Federal Reserve Board, Finance and Economics Discussion Series 9.

Di Maggio, M., A. Kermani, and K. Majlesi (2020). Stock market returns and consumption. *Journal of Finance 75*(6), 3175–3219.

Diecidue, E. and P. P. Wakker (2001). On the intuition of rank-dependent utility. *Journal of Risk and Uncertainty 23*, 281–298.

Dynan, K. E. and D. M. Maki (2001). Does stock market wealth matter for consumption? Available at SSRN 270190.

Gargano, A. and A. G. Rossi (2018). Does it pay to pay attention? *The Review of Financial Studies 31*(12), 4595–4649.

Gillitzer, C. and N. Prasad (2018). The effect of consumer sentiment on consumption: cross-sectional evidence from elections. *American Economic Journal: Macroeconomics 10*(4), 234–69.

Golman, R., D. Hagmann, and G. Loewenstein (2017). Information avoidance. *Journal of Economic Literature 35*, 96–135.

Guiso, L. and P. Sodini (2013). Household finance: An emerging field. In *Handbook of the Economics of Finance*, Volume 2, pp. 1397–1532. Elsevier.

Huang, L., T.-C. Lin, F. Lu, and H. Tang (2024). Naive attention and extrapolative beliefs: Evidence from digital footprints of mutual fund investment. Working Paper.

Imas, A., T.-C. Lin, Y. Luo, and X. Wang (2022). In victory or defeat: Consumption responses to wealth shocks. Working Paper.

Jappelli, T. and L. Pistaferri (2010). The consumption response to income changes. *Annual Review of Economics 2*(1), 479–506.

Jiang, Z., H. Liu, C. Peng, and H. Yan (2023). Investor memory and biased beliefs: Evidence from the field. *Available at SSRN*.

Kahana, M. J. (2012a). *Foundations of human memory*. OUP USA.

Kahana, M. J. (2012b). *Foundations of human memory*. OUP USA.

Karlsson, N., G. Loewenstein, and D. Seppi (2009). The ostrich effect: Selective attention to information. *Journal of Risk and Uncertainty 38*(2), 95–115.

Loos, B., S. Meyer, and M. Pagel (2020). The consumption effects of the disposition to sell winners and hold losers. Technical report, National Bureau of Economic Research.

Lou, D. (2014). Attracting investor attention through advertising. *The Review of Financial Studies 27*(6), 1797–1829.

Medina, P. C., V. Mittal, and M. Pagel (2021). The effect of stock ownership on individual spending and loyalty. Technical report, National Bureau of Economic Research.

Meyer, S., M. Pagel, and A. Previtero (2018). The consumption response to realized capital gains: Evidence from mutual fund liquidations. Working Paper.

Noh, S., E. C. So, and C. Zhu (2021). Financial reporting and consumer behavior. *Available at SSRN 3932590*.

Olafsson, A. and M. Pagel (2017). The ostrich in us: Selective attention to financial accounts, income, spending, and liquidity. National Bureau of Economic Research Working Paper 23945.

Olafsson, A. and M. Pagel (2018). The liquid hand-to-mouth: Evidence from personal finance management software. *Review of Financial Studies 31*(11), 4398–4446.

Parker, J. A. (1999). The reaction of household consumption to predictable changes in social security taxes. *American Economic Review 89*(4), 959–973.

Parker, J. A. (2015). Why don't households smooth consumption? Evidence from a 25 million dollar experiment. NBER Working Paper 21369.

Poterba, J. M. (2000). Stock market wealth and consumption. *Journal of Economic Perspectives 14*(2), 99–118.

Quispe-Torreblanca, E., J. Gathergood, G. Loewenstein, and N. Stewart (2020). Attention utility: Evidence from individual investors. Available at SSRN 3527082.

Quispe-Torreblanca, E., J. Gathergood, G. Loewenstein, and N. Stewart (2021). Investor logins and the disposition effect. Available at SSRN 3422790.

Tversky, A. and D. Kahneman (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty 5*, 297–323.

Wakker, P. P. (2010). *Prospect theory: For risk and ambiguity*. Cambridge university press.

Table 1: **Summary Statistics**

This table reports the descriptive statistics of 200,000 Alipay users with 4,595,967 investor-month observations (mean, standard deviation, minimum, median, and maximum) for personal characteristics variables in Panel A, total and categorical consumption in Panel B, investment related variables include holding, net flow, number of funds, investment gains in Panel C. All continuous variables are winsorized at 0.005 level on both tails.

	N	mean	std	min	Median	max
Panel A. Personal Characteristics						
Age	200000	37.796	8.822	20	36	85
Gender 1=Male, 2=Female	200000	1.391	0.488	1	1	2
Risk Attitude (risk level 1-5)	199991	3.07	2.052	0	3	5
Panel B. Consumption						
Total Consumption (RMB)	4595967	6601	12625	0	2696	106938
Taobao	4595967	1771	12877	0	393	6186435
Basic	4595967	53	290	0	9	1362981
Development	4595967	185	5423	0	0	5629969
Leisure	4595967	404	3364	0	20	1669670
Service	4595967	58	294	0	0	2999
Durable	4595967	460	6423	0	0	5629969
Nondurable	4595967	544	2930	0	118	1222054
Non-Taobao	4595967	5530	40939	0	1617	5.90E+07
Panel C. Investment						
Holding	4595967	87473	145836	0	38896	1115800
Netflow	4595967	24219	67790	0	2000	583107
# of funds by each user	4595967	9.66	11.42	0	6	86
Capital gain of top performing funds	4595967	668	2344	-6164	76	18695
Capital gain of other funds	4595967	1007	4849	-19901	98	35770
Capital gain+dividend of top performing funds	4595967	701	2409	-6080	83	19307
Capital gain+dividend of other funds	4595967	1069	4909	-19593	118	36412
Capital gain of last month investment	4596797	646	3514	-14038	0	26763
Capital gain of earlier investment	4596797	1014	4159	-13535	70	33469
Capital gain+dividend of last month investment	4596797	686	3570	-13804	0	27355
Capital gain+dividend of earlier investment	4596797	1069	4236	-13301	84	34176

Table 2: **The Recency Effect**

This table presents the results for the baseline regression models (1a) and (1b) about the recency effect with total consumption as the dependent variable. The independent variables of interest are capital gain in the previous month from funds invested in the previous month and that from earlier invested funds in columns (1) and (2), and capital gain plus dividend in the previous month from funds invested in the previous month and that from earlier invested funds in columns (3) and (4). Control variables include total fund holding and number of funds held in the portfolio in the previous month. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
Capital gain of last month investment	0.0197***	0.0145***		
	(0.002)	(0.002)		
Capital gain of earlier investment	0.0170***	0.0102***		
	(0.0017)	(0.0017)		
Capital gain+dividend of last month investment			0.0200***	0.0146***
			(0.002)	(0.002)
Capital gain+dividend of earlier investment			0.0168***	0.0099***
			(0.0017)	(0.0017)
Holding		0.0017***		0.0017***
		(0.0001)		(0.0001)
# funds		1540.7***		1540.0***
		(153.32)		(153.32)
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y
R squared	0.0000859	0.0004	0.0000881	0.0004
N	4596797	4596797	4596797	4596797

Table 3: **The Top Performer Effect**

This table presents the results for the regression models (2a) and (2b) about the top-performer effect with total consumption as the dependent variable. The independent variables of interest are capital gain in the previous month of top performing funds and that from other invested funds in columns (1) and (2), and capital gain plus dividend in the previous month of top performing funds and that from other invested funds in columns (3) and (4). Control variables include total fund holding and number of funds held in the portfolio. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
Capital gain of top performing funds	0.0334***	0.0246***		
	(0.0035)	(0.0034)		
Capital gain of other funds	0.0112***	0.0076***		
	(0.0016)	(0.0016)		
Capital gain+dividend of top performing funds			0.0328***	0.0244***
			(0.0034)	(0.0033)
Capital gain+dividend of other funds			0.0113***	0.0066***
			(0.0016)	(0.0016)
Holding		0.0016***		0.0016***
		(0.0001)		(0.0001)
# funds		1530.1***		1530.9***
		(153.36)		(153.37)
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y
R squared	0.0000949	0.0004	0.0000971	0.0004
N	4595967	4595967	4595967	4595967

Table 4: **The Recency Effect under the Default Display Rule**

This table presents the results for consumption responses to gains from funds with high attention versus low attention by exploring a group-based display rule on the platform. The dependent variable is total consumption. The independent variables of interest are capital gain (CG) in the previous month from earlier invested funds that are in the same fund company as the funds invested in the previous month and that from earlier invested funds that are not in the same fund company as the fund invested in the previous month, and that from funds invested in the previous month in colums (1) and (2), and capital gain plus dividend (Div) in the previous month for these three types of funds in columns (3) and (4). Control variables include total fund holding and number of funds held in the portfolio. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG of earlier investment: same firm	0.0472***	0.0188*		
	(0.0093)	(0.0093)		
CG of earlier investment: different firms	0.0160***	0.0103***		
	(0.0019)	(0.0019)		
CG of last month investment	0.0186***	0.0144***		
	(0.0021)	(0.002)		
CG+Div of earlier investment: same firm			0.0491***	0.0201*
			(0.0093)	(0.0092)
CG+Div of earlier investment: different firms			0.0161***	0.0101***
			(0.0019)	(0.0019)
CG+Div of last month investment			0.0192***	0.0146***
			(0.0021)	(0.0021)
Holding		0.0017***		0.0017***
		(0.0001)		(0.0001)
# funds		1535.7***		1532.7***
		(153.45)		(153.47)
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y
R squared	9.02E-05	0.0004	9.38E-05	0.0004
N	4596792	4596792	4596792	4596792

Table 5: **The Top Performer Effect after the Change in Display Setting**

This table presents the results for the extended regression models from (2a) and (2b) about the top-performer effect after the change in display setting. The dependent variable is total consumption. The independent variables of interest are the interaction of capital gain in the previous month from top performing funds with a dummy variable, *After*, indicating the timing of the change in display setting, and the interaction of capital gain in the previous month from other invested funds with the dummy variable *After*. Control variables include total fund holding and number of funds held in the portfolio in the previous month. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG of top performing funds	0.0103*	0.0046		
	(0.0044)	(0.0044)		
CG of other funds	0.0041*	0.0021		
	(0.002)	(0.002)		
CG of top performing funds × After	0.0453***	0.0409***		
	(0.0066)	(0.0066)		
CG of other funds × After	0.0123***	0.0075*		
	(0.0032)	(0.0032)		
CG+Div of top performing funds			0.0114**	0.0057
			(0.0043)	(0.0043)
CG+Div of other funds			0.0036	0.0014
			(0.002)	(0.002)
CG+Div of top performing funds × After			0.0415***	0.0377***
			(0.0064)	(0.0064)
CG+Div of other funds × After			0.0136***	0.0088**
			(0.0032)	(0.0032)
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y
R squared	1.00E-04	0.0004	1.00E-04	0.0004
N	4595967	4595967	4595967	4595967

Table 6: **Heterogeneity: Attention Constrainedness**

This table presents the heterogeneous effects of attention across investors with verying levels of attention constrainedness. We separate the sample into three terciles based on the number of funds held in the first month of the sample, and present the results for the upper tercile (i.e., at least holding 7 funds) in columns (1) and (3) and for the bottom tercile (i.e., at most 4 funds) in columns (2) and (4). In Panel A, the independent variables of interest are capital gain or capital gain plus dividend in the previous month from funds invested in the previous month and that from earlier invested funds. In Panel B, the independent variables of interest are capital gain or capital gain plus dividend in the previous month from top performing funds and that from other invested funds. Control variables include total fund holding and number of funds held in the portfolio in the previous month. Robust standard errors are clustered at the account level.*, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
	Most	Least	Most	Least
Panel A: The Recency Effect				
CG of last month investment	0.0119***	0.0195**		
	(0.0023)	(0.0062)		
CG of earlier investment	0.0075***	0.0220***		
	(0.002)	(0.0047)		
CG+Div of last month investment			0.0118***	0.0218***
			(0.0023)	(0.006)
CG+Div of earlier investment			0.0074***	0.0197***
			(0.002)	(0.0045)
R squared	0.0005	0.0002	0.0005	0.0002
N	2255458	1493573	2255458	1493573
Panel B: The Top-Performer Effect				
CG of top performing funds	0.0132***	0.0081*		
	(0.0028)	(0.0026)		
CG of other funds	0.0030*	0.0082		
	(0.0012)	(0.0012)		
CG+Div of top performing funds			0.0132***	0.0082*
			(0.0028)	(0.0026)
CG+Div of other funds			0.0030*	0.0079
			(0.0012)	(0.0012)
R squared	0.0005	0.0001	0.0005	0.0005
N	2107834	1372874	2107834	1372874
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y

Table 7: **Consumption Response to Cumulative Investment Gains**

This table presents the results for the modified models from (1a) and (1b) the consumption response to cumulative capital gain and capital gain plus dividend. Panel A presents the results about the recency effect and Panel B shows the results about the top-performer effect. The dependent variable is total consumption. The independent variables of interest are cumulative capital gain or cumulative capital gain plus dividend in the previous month from funds invested in the previous month and that from earlier invested funds in Panel A, and cumulative capital gain or cummulative capital gain plus dividend in the previous month from top performing funds and that from other invested funds in Panel B. Control variables include total fund holding and number of funds held in the portfolio in the previous month. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
Panel A: The Recency Effect				
Cum. CG of last month investment	0.0159***	0.0117***		
	(0.0009)	(0.001)		
Cum. CG of earlier invested funds	0.0088***	0.0057***		
	(0.0007)	(0.0008)		
Cum. CG+Div of last month investment			0.0074***	0.0057***
			(0.001)	(0.001)
Cum. CG+Div of earlier invested funds			0.0037***	0.0026***
			(0.0005)	(0.0005)
R squared	3.00E-04	5.00E-04	2.00E-04	5.00E-04
N	4596797	4596797	4596797	4596797
Panel B: The Top-Performer Effect				
Cum. CG of top performing funds	0.0334***	0.0246***		
	(0.0035)	(0.0034)		
Cum. CG of other invested funds	0.0112***	0.0067***		
	(0.0016)	(0.0016)		
Cum. CG+Div of top performing funds			0.0328***	0.0244***
			(0.0034)	(0.0033)
Cum. CG+Div of other invested funds			0.0113***	0.0066***
			(0.0016)	(0.0016)
R squared	9.49E-05	4.00E-04	9.71E-05	4.00E-04
N	4595967	4595967	4595967	4595967
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y

Table 8: **Heterogeneous Consumption Response to Investment Gains: Positive versus Negative**

This table presents the results for heterogeneous consumption response to positive versus negative investment gains for the recency and the top-performer effects. The dependent variable is the total consumption. The independent variables of interest are capital gain or capital gain plus dividend in the previous month from funds invested in the previous month and that from funds invested earlier in columns (1) and (2), or capital gain or capital gain plus dividend in the previous month from top-performing funds and that from other funds in columns (3) and (4). Importantly, we include their respective interactions with a positive dummy, indicating whether the gain is positive or not. Control variables include total fund holding and number of funds held in the portfolio in the previous month. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
	The Recency Effect		The Top-Performer Effect	
CG: High attention	0.0035*		-0.0198	
	(0.0016)		(0.011)	
CG: High attention×Positive	0.0150***		0.0532***	
	(0.0036)		(0.0134)	
CG: Low attention	0.0001		0.0073*	
	(0.0014)		(0.0037)	
CG: Low attention×Positive	0.0120***		-0.0000	
	(0.0031)		(0.0051)	
CG+Div: High attention		0.0035*		-0.0102
		(0.0016)		(0.0096)
CG+Div: High attention×Positive		0.0151***		0.0431**
		(0.0036)		(0.0119)
CG+Div: Low attention		0.0001		0.0056
		(0.0014)		(0.0035)
CG+Div: Low attention×Positive		0.0121***		0.0017
		(0.0031)		(0.0049)
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y
R squared	0.0004	0.0004	0.0004	0.0004
N	4596797	4596797	4595967	4595967

Table 9: **Heterogeneous Effect on Taobao versus Non-Taobao Consumption**

This table presents the results for the regression models (1a) and (1b) about the recency effect on categorical consumption in Panel A and (2a) and (2b) about the top-performer effect on categorical consumption in Panel B. Specifically, the dependent variable in columns (1) and (2) is the Taobao consumption and the dependent variable in columns (3) and (4) is the non-Taobao consumption. The independent variables of interest are capital gain or capital gain plus dividend in the previous month from funds invested in the previous month and that from earlier invested funds in Panel A, and capital gain or capital gain plus dividend in the previous month from top performing funds and that from other invested funds in Panel B. Control variables include total fund holding and number of funds held in the portfolio in the previous month. Robust standard errors are clustered at the account level. *, **, and *** denote significance at 5%, 1% and 0.1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
	Taobao consumption		Non-Taobao Consumption	
Panel A: The Recency Effect				
CG of last month investment	0.0018***	0.0018***		
	(0.0005)	(0.0005)		
CG of earlier investment	0.0017***	0.0016***		
	(0.0004)	(0.0004)		
CG+Div of last month investment			0.0128***	0.0126***
			(0.0014)	(0.0014)
CG+Div of earlier investment			0.0045*	0.0045*
			(0.0021)	(0.0002)
R squared	2.76E-05	2.80E-04	4.00E-04	4.00E-04
N	4596797	4596797	4596797	4596797
Panel B: The Top-Performer Effect				
CG of top performing funds	0.0033***	0.0033***		
	(0.0008)	(0.0008)		
CG of other funds	0.0010**	0.0010**		
	(0.0004)	(0.0004)		
CG+Div of top performing funds			0.0205***	0.0201***
			(0.0031)	(0.003)
CG+Div of other funds			0.0061***	0.0059***
			(0.0015)	(0.0014)
R squared	2.92E-05	2.96E-05	4.00E-04	4.00E-04
N	4595967	4595967	4595967	4595967
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
YearMonth FE	Y	Y	Y	Y