Some Capital Gains are Consumed More Equally than Others *

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Abstract

Using linked mutual-fund and consumption records for 180,000 investors on the world's largest mobile payment platform, we test whether investors consume more out of capital gains from funds that are more highly ranked in their online portfolios. Quasi-exogenous variation from a same-company grouping rule shows that mechanically elevating funds significantly increases next-month redemptions and spending. Effects are strongest at the top of the portfolio interface, for gains rather than losses, and among investors holding more funds. Finally, we show that fund-level attention effects aggregate to persistent portfolio-level consumption differences across investors with varying exposure to salient holdings.

JEL codes: G5, D90, G41, D14
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1 Introduction

Standard models of household portfolios treat capital gains as fungible: conditional on an investor's balance sheet, a gain from one holding should have the same marginal propensity to consume (MPC) as an equal gain from another. Limited attention can break this benchmark if some gains enter perceived spendable wealth while others do not. Digital investment interfaces provide a direct setting for this mechanism: retail investors increasingly view portfolio wealth through ranked mobile screens, where some holdings are more prominent than others.

Recent theory and evidence show that limited attention, salience, and interface design affect economic and financial decision-making (Bordalo et al., 2012, 2013; Gabaix, 2014; Manzini and Mariotti, 2014; Koszegi and Szeidl, 2013; Sims, 2003). In financial settings, salient ranks, top-of-the-list placement, and interface cues affect portfolio choice and investor behavior (Hartzmark, 2015; Frydman and Wang, 2020; Kaniel and Parham, 2017; Barber et al., 2022). But much less is known about whether variation in the salience of capital gains changes how much investors consume out of those gains.[1] It is important to understand how much MPCs out of capital gains vary as they determine how fluctuations in stock markets affect aggregate consumption (Di Maggio et al., 2020).

In this paper, we show that limited attention breaks the within-portfolio fungibility of capital gains. We use linked account-level data on mutual fund holdings and monthly expenditures for 180,000 active investors on Alipay, the world's largest digital payment provider and China's largest mutual fund distribution platform, from January 2019 to December 2020. The platform's default holdings page ranks funds by purchase recency, so the most recently purchased fund appears at the top of the display. A

[1] Loos et al. (2020) and Agarwal et al. (2020) show that behavioral biases in investing affect consumption, but do not exploit direct variation in the salience of investments within the same portfolio.

second rule groups funds from the same fund family in a single block. This grouping rule exogenously moves some older holdings closer to the top when they belong to the same fund company as the investor's most recent purchase. Together, these interface rules allow us to compare consumption responses to economically similar gains that differ in how prominently they are displayed within the investor's own portfolio.

We begin with the default recency ranking. A 100 RMB gain from recently purchased funds is associated with a 1.60 RMB increase in next-month consumption, compared with 1.00 RMB for gains from older holdings in the same portfolio. The differential response is concentrated at the top of the display: gains from funds purchased in month $t-1$ generate a significantly larger consumption response, whereas the corresponding coefficients for funds purchased in months $t-2$ and $t-3$ are not statistically significant. This baseline pattern motivates the paper's main identification design, which separates display prominence from other differences between recently purchased and older holdings.

The paper's main identification design exploits the platform's group-based display rule. Older funds are normally displayed below recently purchased funds. However, when an older fund belongs to the same fund company as the most recent purchase, the platform groups it into the same block and quasi-exogenously elevates it. The key comparison is therefore among older holdings: co-grouped older funds that are moved higher in the display versus other older funds in the same investor's portfolio. This elevation is determined by the platform's ranking algorithm and fund-family membership, rather than by contemporaneous fund returns or current investor spending intentions. Using this design-based variation, we show that a 100 RMB gain from an exogenously elevated older fund generates an additional 2.15 RMB of next-month consumption relative to a lower-ranked older fund. The benchmark response for an older fund is only 0.26 RMB per 100 RMB of gains. Thus, equal capital gains inside the same port-

folio generate vastly different MPCs depending on whether they are displayed more prominently.

One concern is that same-company membership may capture shared return shocks or investor beliefs rather than display position. This concern is mitigated by the fact that the Chinese mutual fund industry is relatively concentrated and a small number of large well-capitalized fund families offer similar products across asset classes and investment styles, making it less likely that investors experience a narrow style shock or update their beliefs about the fund family. To nevertheless reduce any lingering concerns, we show that our estimates remain similar when we restrict the test to fund companies in the top half and top quartile of the sample distribution by number of funds as well as the top decile by assets under management (AUM). In addition, we show that the consumption response is stronger for older same-company holdings that remain closer to the top of the display than for much older same-company holdings that appear farther down the ranking. This pattern supports a ranking-based attention channel rather than a style shock or belief channel.

We next study redemptions, which clarify the financing channel behind the spending response and allow for a stricter fixed-effects structure. First, we look at investor-level redemptions using investor and month-by-year fixed effects as in the consumption regressions. We show that redemptions are larger when a greater share of capital gains are generated by more highly ranked funds. A 100 RMB gain from a highly-ranked older fund is associated with an additional 56 RMB of redemptions relative to a less visible older fund. Second, we look at a fund-level redemption specification that allows us to control for account-by-year-month and fund-by-year-month fixed effects. Again, we find that mechanically elevated gains are associated with a larger conversion of capital gains into spendable cash.

We then show that the same-company salience premium is larger among investors

holding more funds, where monitoring all holdings is more difficult. This supports an attention-constraint interpretation: display rank matters more when investors must allocate attention across more holdings. In addition, the response is concentrated in gains rather than losses. This pattern adds a selective-attention layer on top of limited attention: within the same-company design, exogenously elevated older holdings matter for consumption primarily when they show gains. These patterns are hard to reconcile with a standard wealth-effect model in which each RMB of gain inside the same portfolio is equally fungible, but they are consistent with a mechanism in which display rank governs which gains enter consideration.

The fund-level variation in MPCs survives aggregation to the investor-portfolio level. Sorting investors by the time-series average share of recently purchased fund holdings in total portfolio holdings, we find that investors with greater exposure to these top-displayed capital gains exhibit systematically larger consumption responses to portfolio gains: the monthly MPC rises from 0.0099 in the bottom exposure tercile to 0.0217 in the top tercile, and the same monotonic pattern remains in quarterly specifications, where the corresponding estimates are 0.0210 and 0.0453. These results suggest that ranking-induced attention can shape not only which gains an investor notices inside a portfolio, but also how portfolio gains pass through to spending more broadly. To interpret the economic magnitude of our estimates, we develop a theoretical model as a no-attention benchmark and compare our empirical estimates against it. We then extend the model to allow salient gains to receive disproportionate weight in spending decisions, illustrating our proposed mechanism.

Finally, we use a platform interface change as corroborating reduced-form evidence. In July 2020, the platform began allowing investors to sort their holdings by performance rather than only by recency. We do not observe actual sorting take-up, so we do not treat this setting as equivalent to the main co-grouping design. Nevertheless, the

reduced-form pattern is informative. After the change, the implied response to a 100 RMB gain on the top-performing fund rises to 4.62 RMB, compared with 0.75 RMB for non-top-performing funds. Once the interface makes performance ranking easier to access, unequal pass-through appears along a new ranking dimension.

The paper contributes first to the literature on salience and attention in financial markets. This literature builds on theoretical work showing how salience and limited attention shape decision-making (Manzini and Mariotti, 2014; Bordalo et al., 2012, 2013; Koszegi and Szeidl, 2013). Empirical work in financial markets shows that salient ranks, returns, and interface cues affect investor behavior: stock return ranks affect selling (Hartzmark, 2015; Frydman and Wang, 2020), fund rankings affect flows (Kaniel and Parham, 2017), and digital trading interfaces guide attention and trading (Barber et al., 2022). On the theoretical front, Hirshleifer and Teoh (2003) provide a foundation of how presentation format and salience affect investor decisions. That said, existing work mainly studies trading, search, and fund-flow responses to salient information. We extend this literature to household consumption by studying how display rank affects spending out of portfolio gains.

The paper also contributes to the literature on consumption out of stock market wealth (Campbell, 2006; Poterba, 2000; Baker et al., 2007; Di Maggio et al., 2020; Chodorow-Reich et al., 2021; Imas et al., 2022). That literature typically asks how aggregate or household-level wealth shocks pass through to spending. Our evidence shows that the pass-through is not uniform even within the same investor's balance sheet: equal capital gains from different holdings can generate different MPCs because the holdings occupy different positions on the screen. This within-investor variation is consistent with the mental accounting theory that breaks the fungibility of money (Thaler, 1999) and points to a presentation-driven source of heterogeneity in the consumption response to financial wealth as we show that it does not wash out in the

aggregate.

More broadly, our study speaks to work on attention, information frictions, and macroeconomic transmission (Coibion and Gorodnichenko, 2015; Link et al., 2023; Parker, 1999, 2015; Agarwal et al., 2007; Jappelli and Pistaferri, 2010; Olafsson and Pagel, 2018; Johnson et al., 2006; Agarwal and Qian, 2014; Jappelli and Pistaferri, 2014, 2000). Our results show that platform ranking rules shift the distribution of MPCs out of financial wealth, and that these fund-level effects translate into differences in investor-level consumption responses across exposure groups.

The remainder of this paper is organized as follows. Section 2 describes the institutional setting, platform interface, and linked consumption-investment data. Section 3 presents the baseline evidence under the default recency ranking. Section 3.2 develops the paper's main identification strategy based on the platform's same-company grouping rule. Section 4 examines the mechanism behind the display-rank effect, presents corroborating evidence from the interface change, and reports robustness tests. Section 5 discusses the magnitudes of the estimates and their theoretical interpretation, and Section 6 concludes.

2 Institutional Background and Data

We use linked account-level data from Alipay. Alipay is a third-party mobile and online payment platform launched by Alibaba Group in 2004. By 2013, Alipay had overtaken PayPal to become the world's largest digital payment provider. As of June 2020, the Alipay app reached over one billion users and 80 million merchants in China, and Alipay was the largest digital payment services provider in China by total payment volume, with an approximately 55% market share in the six months ended June 30, 2020 (Ant Group Co., Ltd., 2020). Alipay is widely used for everyday payments and

covers a broad set of routine consumption activities, including food delivery, ride-hailing, health-care appointments, travel bookings, online purchases, and in-person payments to local merchants.

Within Alipay, mutual fund investments are made through Ant Fortune, the platform's mutual fund investment service. Ant Fortune is China's largest mutual fund distribution platform by assets under management as of the end of 2024. The platform provides access to money market funds, bond funds, mixed-asset funds, equity funds, index funds, Qualified Domestic Institutional Investor (QDII) products, and gold funds. Alipay's dual role as a major payment provider and a mutual fund distribution platform gives us unusually broad coverage of these users' observed consumption and investment activity. This linked structure is useful for our question because it allows us to observe the same investors' consumption spending through Alipay and detailed mutual fund account records at a monthly frequency through Ant Fortune.[2]

To focus on users with meaningful mutual fund activity, we begin with Alipay users whose mutual fund holdings exceeded 10,000 RMB at the beginning of 2019. From this group, we randomly selected 200,000 investors and tracked their behavior from January 2019 to December 2020. For each user, we observe monthly mutual fund investments, monthly consumption recorded through Alipay, and individual characteristics.

Our main analysis excludes investors in the top 10% of the trading-frequency distribution. This restriction removes the most active trading tail, whose frequent monitoring may make them less comparable to investors whose monthly responses are more likely to reflect limited or selective attention. The final sample contains 180,000 active investors.[3] Results using the full investor sample are qualitatively similar and

[2]All data were sampled, desensitized, and analyzed remotely on the Ant Open Research Laboratory. The laboratory operates as a secure sandbox environment where researchers can only use the packages provided by the lab and only a limited number of observations are visible to researchers.

[3]Panel A of Appendix Figure A1 shows that this top decile of active investors trade, on average, about 120 times per month—four times more than the top 20% group and roughly eight times more than the top 30% group. Importantly, this high trading frequency is not driven by wealth differences,

are reported in Internet Appendix Tables A9 and A10. All continuous variables are winsorized at the 0.5th and 99.5th percentiles.

The dataset includes demographic and socioeconomic characteristics such as gender, age, and residential location. We also observe investors' self-reported risk tolerance, which is collected through mandatory surveys under China Securities Regulatory Commission (CSRC) guidelines. Panel A of Table 1 shows that 61% of investors are male, the average age is 38, and the average risk-tolerance score is 3.07 on a 0 to 5 scale.[4]

[Insert Table 1]

Consumption is measured as each user's monthly spending recorded through Alipay. We observe total spending and two subcategories: Taobao and non-Taobao spending. Taobao spending refers to purchases on Alibaba's flagship e-commerce platform, while non-Taobao spending captures other transactions recorded through Alipay, such as in-person purchases at restaurants, supermarkets, and local merchants. Panel B of Table 1 reports average monthly spending of 6,525 RMB per user, including 1,559 RMB on Taobao and 4,833 RMB on non-Taobao purchases.[5]

For mutual fund activity, we observe monthly product-level records of purchases, redemptions, holdings, and capital gains on the Ant Fortune platform. Our main gain measure is total capital gains from fund investments. We also use a broader measure, denoted CG+Div in the tables, that adds dividends (fund distributions) to capital gains and captures a wider set of investors' fund-related payoffs. During our sample period, individual investors in China were generally not taxed on capital gains or fund

as shown in Panel B.

[4]Based on a series of questions regarding investment choices and attitudes, the system assesses each investor's risk level on a scale from 0 to 5, with 0 indicating the highest level of risk aversion and 5 indicating the lowest.

[5]We omit the starting month of the sample, January 2019, when reporting the summary statistics because it is not used in the regression analysis due to the lagged construction of regressors.

distributions from mutual fund investments. Internet Appendix Table A1 summarizes the main variable definitions used throughout the paper.

Panel C of Table 1 describes the investment variables. The average mutual fund holding is 82,804 RMB, with a median of 36,499 RMB. Investors hold 8.08 funds per month on average, with a median of 6. Recent investments, defined as funds purchased within the past month, generate average monthly capital gains of 522 RMB, or 558 RMB including dividends. Earlier investments generate average monthly capital gains of 1,038 RMB, or 1,096 RMB including dividends. Capital gains are dispersed across investors and months, which provides variation in the gains associated with differently displayed holdings.

In later analyses, we use share variables that measure the fraction of total gains coming from specific holdings, such as recently purchased funds. These share variables can fall outside the unit interval when total portfolio gains are negative or close to zero. In such months, the ratio of one component's gain to total gains is not bounded between zero and one because gains and losses across holdings may offset each other. We winsorize these share variables at the 0.5th and 99.5th percentiles to limit the influence of extreme denominators.

3 Capital Gains Non-Fungibility Under the Default Display

3.1 Recency-Based Salience in the Default Ranking

During our sample period, the default Ant Fortune holdings page places recently purchased funds at the top of the display. If display rank affects how investors translate gains into spending, gains from these recent holdings should generate a larger consumption response than gains from older holdings in the same portfolio. We first test

this baseline prediction with the following specification:

$$Consumption_{i,t} = \beta_1\ CG_{i,t-1} \times Recent_{i,t-1} + \beta_2\ CG_{i,t-1} + \beta_3 Recent_{i,t-1} + \Sigma_j Control^j_{i,t} + \lambda_i + \gamma_t + \epsilon_{i,t}. \quad (1)$$

Here, $Consumption_{i,t}$ is total consumption in month t for investor i, $CG_{i,t-1}$ denotes capital gains or losses in month $t-1$, and $Recent_{i,t-1}$ is the share of gains generated by funds purchased in month $t-1$. When an investor purchases the same fund multiple times, we use the most recent purchase date so that the measure matches the interface logic. In a parallel specification, we replace $CG_{i,t-1}$ with $(CG+Div)_{i,t-1}$, which denotes capital gains plus dividends. All regressions include account fixed effects and year-month fixed effects. Additional controls include total fund holdings and the number of funds held.

We use an interaction specification in which the variable $Recent_{i,t-1}$ captures the share of gains generated by recently purchased funds, so that the coefficient on $CG_{i,t-1}$ captures the consumption response to gains from older holdings and the interaction term $CG_{i,t-1} \times Recent_{i,t-1}$ directly identifies the incremental response attributable to the higher display rank. If capital gains are fungible within an investor's portfolio, display position should not affect their MPC, implying a zero coefficient on $CG_{i,t-1} \times Recent_{i,t-1}$. Because $Recent_{i,t-1}$ is a continuous share, the specification uses variation in how concentrated an investor's gains are in recently purchased funds in a given month rather than discretizing portfolios into two types. We include the constituent main effects $CG_{i,t-1}$ and $Recent_{i,t-1}$ following standard practice (Wooldridge, 2010; Angrist and Pischke, 2009; Greene, 2012). Omitting the standalone $Recent_{i,t-1}$ share term while retaining $CG_{i,t-1}$ and $CG_{i,t-1} \times Recent_{i,t-1}$ leaves the interaction coefficient essentially unchanged (see Subsection 4.4 for a robustness check). Results are also

qualitatively and quantitatively similar if we instead regress consumption on capital gains from recent funds versus capital gains from older funds.

[Insert Table 2]

Table 2 shows a larger consumption response to gains from recently purchased funds. In Column (2), a 100 RMB gain from older holdings is associated with a 1.00 RMB increase in next-month consumption, whereas a 100 RMB gain from recently purchased funds is associated with a 1.60 RMB increase, and the difference between the two responses, captured by the interaction coefficient, is statistically significant at the 10% level. Column (4) yields the same qualitative pattern when dividends are included: the implied response is 0.95 RMB for older holdings and 1.62 RMB for recently purchased funds, and the difference between the two responses, captured by the interaction coefficient, is statistically significant at the 5% level.

[Insert Table 3]

Table 3 refines this baseline comparison by decomposing capital gains in $t-1$ into those from funds purchased in months $t-1$, $t-2$, and $t-3$, which under the default interface correspond to progressively lower display positions.[6] The incremental response is concentrated at the top of the display. In the capital-gains-plus-dividends specification, the coefficient on $(CG + Div) \times Purchase\ in\ month_{t-1}$ is 0.0130 and significant at the 1% level. The baseline coefficient on $CG + Div$ is 0.0061, so the total implied response for the top-ranked group is 1.91 RMB per 100 RMB of gains. By contrast, the corresponding coefficients for $t-2$ and $t-3$ purchases are not statistically distinguishable from zero. The same qualitative pattern appears in the capital-gains-only specification.

[6]The number of observations is smaller than in Table 2 because this specification drops early-sample observations without a complete three-month purchase-history window.

Taken together, the baseline recency result and the rank-gradient test motivate a display-based interpretation: gains attached to holdings placed more prominently in the default ranking generate larger consumption responses. At the same time, these tests still rely on recency variation, which is problematic. Recently purchased funds may differ from older holdings for reasons unrelated to prominence, including rebalancing motives, private information, or time-varying demand for risky assets. The next section therefore turns to variation in display prominence based on a quasi-experimental design.

3.2 Identification Using Same-Company Grouping in the Default Display

The paper's main identification design exploits a same-company grouping rule embedded in the default interface. This rule moves some older holdings higher in the display without requiring them to be recently purchased. During our sample period, the platform grouped funds from the same fund company as the most recent purchase into a single block. As an illustrative example, consider an investor who holds several funds. Fund A is the most recent purchase and appears near the top of the holdings page. Funds B and C are older holdings. If A and C belong to the same fund company, the platform groups C with A and displays it near the top, while B remains lower in the list. Panel A of Figure 1 illustrates this display rule schematically, and Panel B shows a representative screenshot of the actual Ant Fortune holdings interface.

The key comparison is thus among older holdings: co-grouped older funds that are moved higher in the display versus other older funds in the same investor's portfolio. The identifying variation comes from whether gains on older holdings are made more prominent by the same-company grouping rule. Co-grouping is assigned by the platform's display algorithm and fund-family membership at the time of the most recent

purchase, rather than by contemporaneous fund returns or current spending intentions. This comparison helps separate display prominence from recent-purchase status.

We estimate the following specification:

$$\begin{aligned} Consumption_{i,t} = {} & \beta_1\ CG_{i,t-1} \times (1 - Recent_{i,t-1}) \times Same\,Company_{i,t-1} \\ & + \beta_2\ CG_{i,t-1} \times Recent_{i,t-1} + \beta_3\ CG_{i,t-1} \\ & + \beta_4(1 - Recent_{i,t-1}) \times Same\,Company_{i,t-1} + \beta_5 Recent_{i,t-1} \\ & + \Sigma_j Control^j_{i,t} + \lambda_i + \gamma_t + \epsilon_{i,t}. \end{aligned} \tag{2}$$

The specification estimates consumption responses to three gain components: recently purchased funds ($CG_{i,t-1} \times Recent_{i,t-1}$), co-grouped older holdings ($CG_{i,t-1} \times (1 - Recent_{i,t-1}) \times Same\,Company_{i,t-1}$) and gains from other older holdings ($CG_{i,t-1}$). Specifically, $Same\,Company_{i,t-1}$ is defined within older holdings: the ratio of gains from holdings purchased before $t-1$ that belong to the same fund company as the investor's most recent purchase, relative to total gains from all holdings purchased before $t-1$. Thus, $(1 - Recent_{i,t-1}) \times Same\,Company_{i,t-1}$ is the share of total gains coming from co-grouped older holdings. The coefficient on $CG_{i,t-1}$ captures the baseline consumption response to gains from other older holdings, while the coefficients on $CG_{i,t-1} \times Recent_{i,t-1}$ and $CG_{i,t-1} \times (1 - Recent_{i,t-1}) \times Same\,Company_{i,t-1}$ capture the additional responses to recent gains and co-grouped older gains, respectively.

[Insert Table 4]

Table 4 provides the paper's main design-based evidence. In Column (2), a 100 RMB gain from a co-grouped older fund generates an additional 2.15 RMB of next-month consumption relative to a non-co-grouped older fund. The benchmark response to a non-co-grouped older fund is 0.26 RMB per 100 RMB of gains, implying a total

MPC of 2.41 RMB for co-grouped older funds. Column (4) delivers nearly the same conclusion when dividends are included: the incremental effect for co-grouped older funds is 2.11 RMB per 100 RMB of gains, relative to a baseline response of 0.26 RMB.

In this specification, account fixed effects absorb time-invariant preferences for particular fund families. That said, a remaining concern is that investors may think they learn something when an older fund performs well that belongs to the same family as a recently purchased one, either about the fund's style or about the fund family. In our setting, this concern is further mitigated by the structure of the Chinese mutual fund industry. The industry is moderately concentrated and a number of large well-capitalized fund families offer very similar diversified products across asset classes and investment styles, so same-company membership is less likely to proxy for a narrow style shock and investors are unlikely to update their beliefs about the fund family when an older fund in that family is doing well.

Nonetheless, we address this concern more directly by applying a stricter same-company definition. Internet Appendix Tables A2 and A3 define same-company older funds using only fund companies in the top 50% and top 25% of the sample distribution by the number of products. This restriction changes only the definition of same-company funds: older holdings are classified as same-company as the recent purchase only if they belong to one of these largest fund families. Additionally, we restrict to fund families in the top 10% by AUM in Appendix Table A4. All the qualitative pattern and economic magnitudes are similar to the main same-company results.

A second check holds fund-family membership fixed and asks whether the same-company response is concentrated among older holdings that remain closer to the top of the display. Specifically, we split older holdings that belong to the same fund company as the most recent purchase into relatively recent older holdings, purchased between $t-2$ and $t-4$, and much older holdings, purchased in $t-5$ or before. If the same-

company estimate were driven mainly by a broad fund-family shock or investor belief about the fund company, the response should appear more symmetrically across these two groups. Instead, the elevated response is concentrated among the $t-2$ to $t-4$ same-company holdings, which remain closest to the top of the display, and weakens for much older same-company holdings, even though they share the same fund-family link. The larger $t-2$ to $t-4$ coefficient relative to the average same-company estimate in Table 4 is therefore consistent with this split isolating the most display-salient older same-company holdings. This pattern is more consistent with a ranking channel than with a style shock or common fund-family belief channel. We report this split in Internet Appendix Table A5.

We next turn to redemption, which will allow for a tighter fixed effect specification and help address any remaining identification concerns.

3.3 Redemption Responses and Cash Conversion

We now move on to study redemptions, which allow for an even stronger test of the identification strategy. Investors who respond to salient capital gains in their spending are likely to first convert part of those gains into cash by redeeming fund shares. If display salience affects whether gains enter spending decisions, it should also be associated with stronger redemption of those gains. Panel A of Table 5 mirrors the same-company grouping specification with next-month redemptions as the dependent variable.

[Insert Table 5]

The redemption results closely parallel the consumption results. In Column (2), a 100 RMB gain from a co-grouped older fund is associated with an additional 56 RMB of next-month redemption relative to a non-co-grouped older fund, and this difference

is statistically significant at the 1% level, closely paralleling the consumption result in Table 4. The same qualitative pattern and similar magnitudes appear when dividends are included.

These magnitudes make the consumption results more economically plausible. Redemption measures conversion of mutual fund wealth into cash, not final spending, so the redemption coefficients are naturally larger than the consumption MPCs. They nevertheless show that salient gains are not only associated with higher spending, but are also more likely to be converted into spendable cash.

Utilizing the granularity of the fund investment data, Panel B of Table 5 shows that the redemption result is robust to a fund-level analysis with saturated fixed effects. Instead of aggregating redemption to the account-month level, this specification uses fund-by-account-by-month observations and includes both account-by-year-month fixed effects and fund-by-year-month fixed effects. The estimates therefore compare, within the same investor-month, whether redemption is stronger for funds whose gains are more salient under the same-company grouping rule, while absorbing month-specific shocks to each fund. The results are consistent with the account-level evidence in Panel A of Table 5: capital gains on same-company older holdings predict significantly higher subsequent redemption, and the pattern remains similar when dividends are included in the gain measure.[7]

Taken together, the account- and fund-level redemption evidence shows that display salience affects not only how investors spend out of gains, but also whether those gains are converted into cash. This pattern connects the consumption response to mental-accounting models in which investors do not fully integrate gains across holdings (Thaler, 1985, 1999), and to limited-attention evidence that investors trade more

[7]The fund-level specification uses a much larger sample consisting of fund-by-account-by-year-month observations and controls saturated account-by-year-month and fund-by-year-month fixed effects, rendering the regression computationally demanding. We therefore estimate this specification on a random half-sample of 90,000 accounts.

actively on salient portfolio information (Hartzmark, 2015; Frydman and Wang, 2020; Barber et al., 2022). We thus conclude that mechanically moving a fund higher in the default display increases how strongly its capital gains pass through to consumption through additional redemptions.

4 Mechanisms and Corroborating Evidence

This section examines the behavioral channels behind the spending response. We first study attention constraints and selective attention to gains. Then, we turn to the interface change that made performance-based ranking easier to use. We close with additional robustness checks.

4.1 Attention Constraints

If display salience matters because investors cannot allocate equal attention across all holdings, the same-company salience wedge should be larger among investors facing tighter attention constraints. Table 6 tests this prediction by splitting investors into above- and below-median groups based on the number of funds held at the start of the sample. Investors holding at least six funds are classified as more attention constrained, while those holding five or fewer funds are classified as less constrained. The logic is straightforward: the more funds an investor holds, the harder it is to monitor all of them evenly, so the ranking rule should matter more for which gains are noticed.

[Insert Table 6]

The results are consistent with limited attention. In the capital-gains specification, a 100 RMB gain from an exogenously elevated older same-company holding raises next-month consumption by an additional 3.12 RMB for the more constrained group,

compared with 1.10 RMB and statistically insignificant for the less constrained group. The dividend-inclusive specification shows the same ordering: the corresponding estimates are 2.90 RMB for more constrained investors and 1.36 RMB for less constrained investors. What grows with attention constraints is the same-company salience premium, which is exactly what one would expect if display rank matters because investors have limited capacity to spread attention evenly across many funds.

Taken together, the split shows that the same-company salience premium is larger in more crowded portfolios, where monitoring all holdings is more difficult. This pattern supports the attention-constraint interpretation: display rank matters more when investors must allocate attention across more holdings and when not all holdings are displayed on the landing page.

4.2 Selective Attention to Gains versus Losses

The attention-constraint results speak to limited attention. We next ask whether the same-company salience wedge is stronger for gains than for losses, which would be consistent with selective attention to gains.

[Insert Table 7]

To test that prediction, Table 7 splits the sample by whether capital gains from older same-company holdings are positive or negative.[8] Under a selective-attention mechanism, the gain-loss asymmetry should be larger for holdings whose display prominence increases under the grouping rule.

The results are consistent with selective attention to gains. In the gain subsample, a 100 RMB gain from an exogenously elevated older same-company holding is associated

[8]The sample split here excludes zero-gain observations. The results are qualitatively similar if zero-gain observations are included with either the gain or the loss subsample.

with an additional 3.30 RMB of next-month consumption relative to a non-co-grouped older holding. In the loss subsample, the corresponding estimate is -0.35 RMB and statistically insignificant. The dividend-inclusive specification gives the same pattern: the additional response is 3.22 RMB in the gain subsample, but -0.40 RMB and insignificant in the loss subsample. This asymmetry stands in contrast to the traditional marginal propensity to consume literature, where liquidity constraints and precautionary motives typically imply larger responses to negative income shocks (Bunn et al., 2018). Instead, it is more consistent with attention-based frameworks such as the ostrich effect (Karlsson et al., 2009; Sicherman et al., 2016) in which investors place greater weight on salient gains than on comparable losses when translating portfolio performance into consumption.

4.3 Corroborating Evidence from the Interface Change

The preceding tests suggest that display prominence operates through attention: salient gains are more likely to be redeemed, the effect is larger when attention is more constrained, and the response is concentrated when exogenously elevated older holdings show gains. We next ask whether the same salience logic emerges along a different ranking dimension when the platform changes its interface. Existing work shows that investors pay disproportionate attention to extreme performers in ranked settings (Hartzmark, 2015). Our setting is useful because it lets us distinguish top-performer salience per se from salience created by the interface ranking. Prior to July 2020, fund holdings on the platform were displayed strictly in order of purchase. In July 2020, however, Ant Fortune allowed investors to customize the order of their holdings using alternative criteria such as cumulative gains and returns, daily proceeds, daily returns, or the timing of NAV updates. Figure 2 summarizes this interface change.

Although we do not observe which investors chose to sort by performance, the

before-after contrast is informative as corroborating reduced-form evidence: if interface ranking is what draws investor attention, the top-performer effect should emerge mainly after performance-based sorting becomes easier to access.

To evaluate that prediction, we estimate the following specification:

$$\begin{aligned} Consumption_{i,t} = {} & \beta_1\ CG_{i,t-1} \times TopPerformer_{i,t-1} \times After_t \\ & + \beta_2\ CG_{i,t-1} \times TopPerformer_{i,t-1} + \beta_3\ CG_{i,t-1} \times After_t \\ & + \beta_4\ CG_{i,t-1} + \beta_5\ TopPerformer_{i,t-1} \times After_t \\ & + \beta_6\ TopPerformer_{i,t-1} + \Sigma_j Control^j_{i,t} + \lambda_i + \gamma_t + \epsilon_{i,t}. \end{aligned} \tag{3}$$

Here, $TopPerformer_{i,t-1}$ is the share of gains in month $t-1$ generated by the fund with the highest cumulative gains in investor i's portfolio, and $After_t$ is an indicator for July 2020 and later months. We also estimate a parallel specification that replaces capital gains with the sum of capital gains and dividends.

[Insert Table 8]

Table 8 shows a sharp widening of the performance-salience wedge after the interface change. In Column (2), before July 2020 the response to gains on non-top-performing funds is 0.27 RMB per 100 RMB of gains, while the response to gains on the top-performing fund is 0.37 RMB (= 0.27 + 0.10), so the incremental top-performer effect is economically small and statistically insignificant. After July 2020, the response to gains on non-top-performing funds rises to 0.75 RMB (= 0.27 + 0.48), while the response to gains on the top-performing fund rises to 4.62 RMB (= 0.27 + 0.48 + 0.10 + 3.77) in Column (2). The implied post-change incremental top-performer effect is therefore 3.87 RMB (= 0.10 + 3.77) per 100 RMB of gains. The additional 3.77 RMB post-change widening is statistically significant at the 1% level, indicating that the top-performer wedge increases sharply after the interface change rather than merely

reflecting a common rise in the consumption response to all fund gains. The same pattern appears when dividends are included.[9] July 2020 also coincided with a period of elevated Chinese equity market returns and heightened retail investor attention. The year-month fixed effects in all specifications absorb these aggregate time-series shocks.

The key result is that the top-performer effect is economically small and statistically insignificant before the interface change. It becomes large only after the platform makes performance-based ranking easier to access. This pattern suggests that display ranking matters more than top-performer status per se for investor attention, and provides corroborating reduced-form evidence that unequal consumption arises when the interface makes a particular ranking dimension salient.

4.4 Robustness

Double-clustering. The remaining robustness checks are reported in the Internet Appendix. First, we verify that the same-company identification results are not sensitive to allowing for correlated shocks at both the account and year-month levels. Internet Appendix Table A7 repeats the same-company specifications with standard errors two-way clustered by account and year-month. The results remain statistically significant, consistent with Table 4.

Omitting constituent baselines. One concern is that the constituent baseline share, $Recent_{i,t-1}$ and $(1 - Recent_{i,t-1}) \times Same\,Company_{i,t-1}$, are ratio variables and may be sensitive to months in which the relevant gain denominator is small. Appendix Table A8 repeats the same-company grouping specification after omitting the constituent baselines share variables. The coefficients on the core variables of interest are qualitatively unchanged relative to Table 4.

[9] Internet Appendix Table A6 shows a similar result when the top-performing fund is defined by cumulative return rather than cumulative gains.

Including hyperactive investors. Second, including instead of excluding the top 10% most active investors leaves the patterns intact. In Internet Appendix Table A9, Column (2), a 100 RMB gain from a co-grouped older fund generates an additional 1.71 RMB of next-month consumption relative to a non-co-grouped older fund, with a baseline response of 0.29 RMB for non-co-grouped older funds. The economic magnitude is close to the main same-company estimate. The top-performer test in Table A10 is also robust to including the most active investors.

The spending response extends beyond online retail purchases. We can break down consumption into purchases on Taobao, Alibaba's main online retail marketplace, and non-Taobao consumption, which includes offline and other non-marketplace purchases such as restaurants, supermarkets, and local merchants. Internet Appendix Table A11 repeats the same-company grouping specification separately for these two categories. The same-company grouping effect is concentrated outside Taobao: in Column (3), a 100 RMB gain from an older same-company holding is associated with an additional 2.21 RMB of non-Taobao consumption relative to other older holdings, while the corresponding estimate for Taobao purchases is only 0.06 RMB and statistically insignificant. The dividend-inclusive specification gives a similar pattern, with an additional response of 2.18 RMB for non-Taobao consumption and a statistically insignificant response for Taobao purchases. This pattern makes it less likely that the same-company salience effect is driven solely by online impulse purchases.

4.5 Aggregating the Data

The natural next question is whether the effects wash out in the aggregate or not. To answer this question, we extend the within-portfolio analysis to a cross-sectional setting to examine whether limited attention affects consumption at the portfolio level across individuals who differ in their exposure to recently invested funds. Specifically,

as shown in Table 9, we construct a measure of recency exposure for each investor as the time-series average of the monthly fraction of recently invested fund holdings relative to total portfolio holdings over the full sample period. We then partition investors into terciles based on this measure, where the bottom (top) tercile corresponds to the lowest (highest) recency exposure. Columns (1) to (3) aggregate consumption and capital gains (plus dividends) at the monthly frequency, whereas columns (4) to (6) use quarterly aggregates.

[Insert Table 9]

The results in both Panel A and Panel B of Table 9 show that the MPC increases monotonically with recency exposure across all specifications. This pattern suggests that within-portfolio heterogeneity in MPCs aggregates into economically and statistically significant portfolio-level effects on total consumption. Importantly, these cross-sectional differences remain evident in the quarterly regressions, indicating that the effects are unlikely to be short-lived or washed out in the aggregate.

This cross-sectional gradient suggests that display-induced heterogeneity in fund-level MPCs can translate into meaningful differences in portfolio-level consumption responses. If platform design increases the fraction of investors holding high-recency-exposure portfolios —for example, by making recent-purchase funds even more prominently displayed —the aggregate MPC out of equity wealth would rise. Our results suggest that MPC heterogeneity of the type documented here, where display conventions rather than fundamental economic differences drive the dispersion, can shape the aggregate consumption response to equity wealth shocks in ways that standard representative-agent benchmarks do not capture, consistent with evidence that the distribution of MPCs matters for the macro response to wealth and income shocks (Mian et al., 2013; Parker et al., 2013; Auclert, 2019).

5 Discussion

5.1 Standard Portfolio Theory

We start our discussion by reviewing what a standard portfolio choice model would predict in terms of the consumption response to capital gains. In a standard portfolio choice model with constant relative risk aversion (CRRA) utility and multiple risky assets (see, e.g., Merton, 1969; Campbell and Viceira, 2002, and outlined in Internet Appendix B), an additional unit of wealth brings a proportional response in additional consumption. This proportional response equals the consumption-wealth ratio, which we denote as ρ, and is independent of attention. For the log utility case, the consumption-wealth ratio boils down to $\rho = 1 - \beta$ with β denoting the agent's discount factor. Using the discount-factor calibration in Gourinchas and Parker (2001) and expressing it at the monthly frequency of our data, we obtain $\beta = 0.9569^{1/12} = 0.9963$. The corresponding proportional consumption response is therefore $\rho \approx 0.0036$, or about 0.36% per month. This benchmark is low primarily because it is calibrated to a monthly decision interval with an infinite investment horizon. Nonetheless, it provides a conservative monthly benchmark against which the effects of display salience can be measured.

We observe that the estimated consumption response is not only larger than the benchmark model prediction, but also highly sensitive to display salience. In the recency baseline, Column (2) of Table 2 implies an MPC of about 1% out of overall portfolio gains, compared with the model benchmark of 0.36%. The incremental effect of display salience under the default ranking is 0.6% (Column 2). Under the paper's main identification design, the total MPC for co-grouped older funds rises to 2.41% in Table 4 (Column 2), of which 0.26% reflects the response to overall portfolio gains and 2.15% reflects the incremental same-company prominence effect. Display salience

therefore raises the pass-through of capital gains by roughly four (1.6%/0.36%) to seven (2.41%/0.36%) times as large as the monthly benchmark. In the corroborating post-July 2020 interface setting, the total post-change response for top-performing funds reaches 4.62% in Table 8 (Column 2), thirteen times as large as the monthly benchmark.

Even in the aggregate specification of Table 9, the MPCs across exposure groups differ by roughly a factor of three, rising from 0.68% to 1.82% in the monthly specification and from 1.14% to 2.99% in the quarterly specification.

Our estimates are comparable to the broader literature on consumption out of stock market wealth (Chodorow-Reich et al., 2021; Di Maggio et al., 2020), but the comparison should be interpreted cautiously because those papers study different wealth shocks and different horizons. The distinctive result here is that they vary sharply within the same portfolio depending on which gains become salient on the interface.

5.2 Behavioral Theories of Salience and Limited Attention

In the empirical analysis above, we use display rank as the proxy for salience. The main design-based variation comes from same-company grouping, while the recency and performance rankings provide supporting evidence on how interface ordering affects attention to gains. We now review the theoretical literature that motivates these channels and then extend our model to display salience.

It is widely acknowledged in the psychology literature 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 review and Hirshleifer and Teoh (2003) for a model of how interfaces affect investment decisions). In economics, rank-dependent models such as cumulative prospect theory (Tversky and Kahneman, 1992) also emphasize the importance of ordering. More directly, Manzini and Mariotti

(2014) model salience as the result of what is prominently displayed. This logic fits our evidence closely: gains attached to higher-ranked holdings, especially those at the top of the default display, generate larger consumption responses.

Recency is also grounded in the psychology of memory. Individuals give disproportionate weight to recent experiences (Kahana, 2012), and investors recall recent outcomes more readily in financial settings (Jiang et al., 2025). In economics, Bordalo et al. (2020) likewise emphasize the interplay between memory and attention. Our main result fits naturally into this framework: more recent holdings are more likely to be top of mind and therefore have a larger spending impact when they generate gains. The post-July performance result complements this interpretation by showing that performance also becomes behaviorally important once the interface makes that ranking dimension easier to activate.

5.3 Extending Portfolio Theory to Display-Rank-Dependent Consideration Probabilities

The standard portfolio-choice model of Subsection 5.1 and Appendix B predicts a uniform MPC out of capital gains equal to the consumption-wealth ratio ρ, independent of which fund generates the gain. Appendix B.3 extends that framework by introducing consideration probabilities depending on display rank as in Manzini and Mariotti (2014): each fund j enters the investor's consideration set with probability $\pi_j \in [0, 1]$, strictly decreasing in display rank. The guess-and-verify argument of Appendix B.2 carries through with perceived wealth $\widetilde{W}_t = \sum_j \mathbf{1}_j W_{j,t}$ replacing total wealth, and because the fixed-point condition for ρ depends only on preferences and the return process, the frictionless consumption-wealth ratio is unchanged. The fund-level MPC therefore becomes $\text{MPC}_j = \rho \cdot \pi_j$, nesting the standard Merton benchmark as the

special case $\pi_j = 1$ for all j.

This expression maps directly onto our empirical interaction specification. Partitioning the portfolio into recently purchased funds with consideration probability π^R and older holdings with $\pi^O < \pi^R$, and rewriting in terms of total gains and the recent share $\text{Recent}_{i,t-1}$, the model delivers $\beta_2 = \rho\pi^O$ and $\beta_1 = \rho(\pi^R - \pi^O)$ in Equation (1). The null hypothesis of the standard model—that display rank does not affect consumption—corresponds to $\pi^R = \pi^O$ and hence $\beta_1 = 0$, while the estimated $\hat{\beta}_1 > 0$ in Table 2 directly identifies the attention gap $\pi^R - \pi^O$ scaled by ρ. The co-grouping identification design of Section 3.2 provides a sharper test of this expression: within the set of older holdings, the platform's same-company grouping rule shifts π^O upward for a subset of funds, so the coefficient on $CG_{i,t-1} \times (1 - \text{Recent}_{i,t-1}) \times \text{SameCompany}_{i,t-1}$ in Equation (2) identifies $\rho(\pi^{\text{SC}} - \pi^O)$, where $\pi^{\text{SC}} > \pi^O$ is the elevated consideration probability for co-grouped older funds. The model further generates the subsidiary predictions we test: allowing π_j to increase in the sign of the fund's gain produces the gain-loss asymmetry of Table 7, and imposing a fixed total attention budget $\Pi = \sum_j \pi_j$ implies that the gap $\pi^R - \pi^O$ widens with portfolio size, consistent with the attention-constraint gradient in Table 6.

6 Conclusion

This paper shows that limited attention can break the within-portfolio fungibility of capital gains. In a standard benchmark, equal gains from different holdings in the same portfolio should generate the same consumption response. Instead, we find that an older holding quasi-exogenously elevated in the display through the platform's same-company grouping rule generates a larger consumption response than otherwise similar, less visible older holdings. Display rank matters because it reallocates investor atten-

tion across wealth shocks.

The evidence points to a limited-attention mechanism. More visible gains are accompanied by larger redemptions, consistent with investors converting salient gains into spendable cash. The salience wedge is stronger for gains than for losses and larger among investors holding more funds. These fund-level variations in MPCs also aggregate: investors with greater exposure to salient gains exhibit larger consumption responses to portfolio gains. Attention therefore affects not only which gains enter consideration, but also how portfolio gains pass through to spending.

The attention mechanism is broader than the specific FinTech setting we study. Households learn about portfolio gains through many information channels, including brokerage apps, account statements, advisors, financial news, and their own monitoring habits. These channels can make some gains more salient than others. Our interface provides a sharp setting in which this attention margin can be identified and quantified, but similar salience-driven responses may arise whenever information environments make portfolio gains unevenly visible.

These findings have direct implications for the design of retail investment platforms. Default display rules are not neutral presentation choices: by changing which gains are more visible, they can shift the distribution of consumption responses to portfolio gains. Because this unequal pass-through operates through display salience rather than fundamental differences across holdings, it is also potentially reversible: interface designs that change the visibility of otherwise comparable holdings may change the degree of within-portfolio MPC heterogeneity.

Our findings also speak to fiscal and monetary policy transmission through household balance sheets. If households spend out of salient gains rather than wealth per se, the consumption response to policy-induced asset-price movements depends not only on the size of those movements, but also on how salient and spendable the gains feel.

In periods of strong "Fed put" beliefs, gains may feel more permanent and spendable, reinforcing the gain-loss asymmetry we document. More broadly, the evidence speaks to a common assumption in general-equilibrium and HANK models: households may not treat wealth as fully integrated and fungible (Kaplan et al., 2018). The marginal propensity to consume out of risky-asset wealth is therefore better understood not as a fixed structural constant, but as a response that depends on the salience and framing of the gains households observe.

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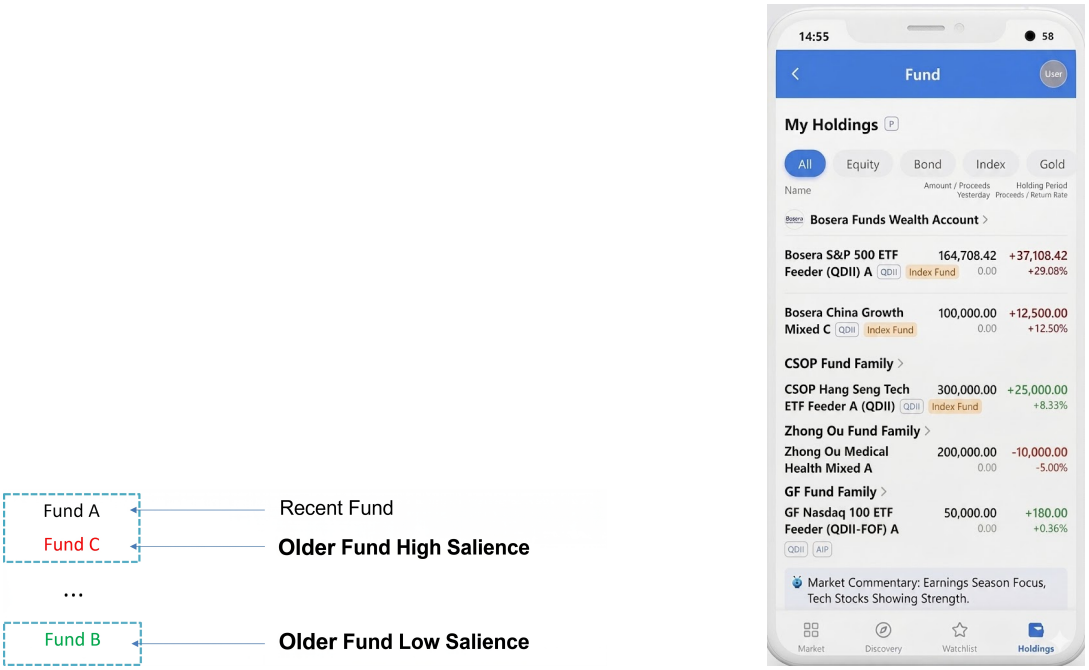
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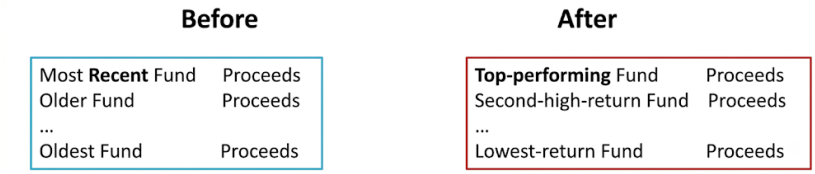
Figure 1: **Same-Company Grouping in the Default Display**



A. **Schematic** B. **Interface Screenshot**

Notes: Panel A illustrates the same-company grouping rule schematically. The most recently acquired fund is displayed at the top of the holdings page. Funds from the same fund company are grouped together within a single block, so that an older fund from the same company as the most recent purchase (Fund C in the example) is displayed closer to the top than an older fund from a different company (Fund B). Panel B shows a representative screenshot of the Ant Fortune holdings page under the default display, where fund-family blocks make the co-grouping rule visible in practice.

Figure 2: **Performance-Based Sorting After the July 2020 Interface Change**



Notes: This figure illustrates the July 2020 interface change that allowed investors to customize the order of their holdings. Before the change, holdings were displayed according to the default purchase-order ranking. After the change, investors could sort holdings by performance-related criteria, making top-performing funds easier to bring to the top of the display.

Table 1: Summary Statistics

This table presents descriptive statistics for the sample of 180,000 Alipay users in our main analysis. Panel A summarizes users' personal characteristics, where risk aversion is measured on a scale from 0 (most risk-averse) to 5 (least risk-averse). Panel B reports total and category-specific monthly consumption. Panel C presents investment-related variables, including monthly mutual fund holdings, the number of funds held, capital gains (CG), capital gains plus dividends (CG+Div), and the share of capital gains or total gains generated by recently purchased funds, all measured at month end. All continuous variables are winsorized at the 0.5th and 99.5th percentiles. The mean, median, and standard deviation, as well as the 1st, 25th, 75th, and 99th percentiles of each variable are provided.

	N	Mean	Std	1%	25%	Median	75%	99%
Panel A. Personal Characteristics								
Age	180,000	37.80	8.82	24	31	36	43	65
Gender 1=Male, 2=Female	180,000	1.39	0.49	1	1	1	2	2
Risk Attitude (risk level 0-5)	179,992	3.07	2.05	1	2	3	4	5
Panel B. Consumption								
Total Consumption	4,136,968	6,525	12,429	0	991	2,678	6,567	70,336
Taobao	4,136,968	1,559	3,442	0	52	396	1,463	19,211
Non-Taobao	4,136,968	4,833	10,719	0	472	1,597	4,408	60,989
Panel C. Investment								
Holding by each user	4,136,968	82,804	138,810	0	13,508	36,499	90,603	772,902
# of funds by each user	4,136,968	8.08	8.04	0	3	6	10	42
CG from recently purchased funds	4,136,968	522	3,010	-7,418	0	0	283	15,043
CG from older holdings	4,136,968	1,038	4,253	-8,193	0	72	878	22,186
CG+Div from recently purchased funds	4,136,968	558	3,065	-7,285	0	0	307	15,442
CG+Div from older holdings	4,136,968	1,096	4,332	-8,040	0	88	934	22,750
Recent fund share of capital gains (CG)	4,136,968	0.41	78.62	-1.24	0.00	0.02	0.86	2.25
Recent fund share of total gains (CG+Div)	4,136,968	0.40	77.44	-1.23	0.00	0.02	0.86	2.22
Redemption	4,136,968	10,545	35,707	0	0	0	2,209	204,213

Table 2: Unequal Consumption Under the Default Display

This table reports the baseline evidence under the platform's default ranking. The dependent variable is total consumption. The key independent variables are capital gains (or capital gains plus dividends) from the previous month, the variable *Recent*, and their interaction. *Recent* is defined as the proportion of gains generated by funds purchased in the previous month. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) additionally include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × Recent	0.0046	0.0060*		
	(0.0031)	(0.0031)		
CG	0.0165***	0.0100***		
	(0.0018)	(0.0018)		
Recent	-15.814	-15.962		
	(11.088)	(11.507)		
(CG+Div) × Recent			0.0054*	0.0067**
			(0.0030)	(0.0030)
CG+Div			0.0161***	0.0095***
			(0.0017)	(0.0017)
Recent			-17.675	-17.872
			(11.761)	(12.204)
Holdings		0.0017***		0.0017***
		(0.0002)		(0.0002)
# Funds		1533.5***		1532.5***
		(200.74)		(200.74)
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	8.06E-05	0.0003	8.46E-05	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table 3: Display Rank and Unequal Consumption Responses

This table tests whether consumption responses decline as gains come from funds displayed lower on the default holdings page. The dependent variable is total consumption in month t. *Purchase in month* $t-1/2/3$ are the shares of month-$t-1$ gains from funds purchased in months $t-1$, $t-2$, and $t-3$, respectively, where the shares are defined relative to the corresponding total gain measure used in the column: total capital gains in Column (1) and total capital gains plus dividends in Column (2). Both specifications include account and year-month fixed effects; controls are total fund holdings and the number of funds held. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)
Dep. Var.: Total Consumption	Capital gain	Capital gain + dividend
CG (or CG+Div) × Purchase in month $t-1$	0.0131***	0.0130***
	(0.0030)	(0.0029)
CG (or CG+Div) × Purchase in month $t-2$	0.0008	0.0024
	(0.0069)	(0.0068)
CG (or CG+Div) × Purchase in month $t-3$	0.0124	0.0122
	(0.0087)	(0.0084)
CG (or CG+Div)	0.0063***	0.0061***
	(0.0018)	(0.0018)
Purchase in month $t-1$	−4.2308***	−5.0146***
	(1.8898)	(2.2021)
Purchase in month $t-2$	4.5936	3.8729
	(4.3084)	(4.5358)
Purchase in month $t-3$	48.934*	50.923**
	(24.479)	(25.148)
Controls, Account FE, Year-Month FE	Y	Y
R-squared	0.0001	0.0001
N	3,776,435	3,776,435

Table 4: Same-Company Grouping and Consumption Responses to Capital Gains

This table reports the paper's main identification design based on the platform's same-company grouping rule. Under the default display, older funds from the same fund company as the investor's most recent purchase are grouped into the same fund-family block and therefore displayed higher than other older holdings. The dependent variable is total consumption. *Recent* is the share of gains from funds purchased in the previous month $t-1$. *Same Company* is the share of gains from holdings that were purchased earlier than $t-1$ and belong to the same fund company as the investor's most recent purchase in $t-1$. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0504***	0.0215**		
	(0.0108)	(0.0108)		
CG × Recent	0.0149***	0.0119***		
	(0.0028)	(0.0028)		
CG	0.0035***	0.0026**		
	(0.0011)	(0.0010)		
(1- Recent)× Same Company	-34.570***	-36.163***		
	(12.934)	(13.231)		
Recent	-21.085***	-21.496***		
	(6.1631)	(6.3135)		
(CG+Div) × (1-Recent) × Same Company			0.0497***	0.0211**
			(0.0106)	(0.0106)
(CG+Div) × Recent			0.0154***	0.0121***
			(0.0027)	(0.0027)
(CG+Div)			0.0036***	0.0026**
			(0.0010)	(0.0010)
(1-Recent) × Same Company			-36.416***	-38.170***
			(10.992)	(11.155)
Recent			-23.815***	-24.316***
			(5.1472)	(5.2168)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	6.976E-05	0.0003	7.308E-05	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table 5: Redemption Response to Capital Gains under Same-Company Grouping: Account- and Fund-Level

This table reports redemption responses to capital gains under the same-company grouping rule. Panel A reports account-level regressions, where the dependent variable is the redemption amount for investor i in month t. Panel B reports fund-level regressions, where the dependent variable is the redemption amount for fund j held by investor i in month t; because of the large size of the full fund-level sample, Panel B uses a random half-sample of accounts (90,000 investors). The key independent variables are capital gains, capital gains plus dividends, *Recent*, and *Same Company*. *Recent* is the share of gains from funds purchased in the previous month. *Same Company* captures older holdings that belong to the same fund company as the investor's most recent purchase. Columns (1) and (2) and Columns (5) and (6) use capital gains, while Columns (3) and (4) and Columns (7) and (8) use capital gains plus dividends. Even-numbered columns include controls for total fund holdings and the number of funds held. Panel A includes account and year-month fixed effects. Panel B includes account-by-year-month and fund-by-year-month fixed effects. Standard errors are reported in parentheses and clustered at the account level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Panel A. Account-Level Redemption				*Panel B. Fund-Level Redemption*			
Dep. Var.: Redemption	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CG × (1-Recent) × Same Company	2.2224***	0.5614***			0.9702***	0.5206***		
	(0.0789)	(0.0671)			(0.0351)	(0.0359)		
CG × Recent	0.9047***	0.6746***			0.1552***	0.2371***		
	(0.0279)	(0.0199)			(0.0121)	(0.0124)		
CG	0.1748***	0.0972***			0.8074***	0.1924***		
	(0.0168)	(0.0096)			(0.0082)	(0.0079)		
(1-Recent) × Same Company	−15.607	−134.51***			−2624.6***	1755.6***		
	(17.480)	(31.032)			(541.45)	(523.53)		
Recent	−19.443*	−50.946***			78130***	43730***		
	(9.284)	(15.852)			(814.46)	(653.34)		
(CG+Div) × (1-Recent) × Same Company			2.2417***	0.5964***			0.9918***	0.5546***
			(0.0774)	(0.0657)			(0.0346)	(0.0353)
(CG+Div) × Recent			0.9050***	0.6618***			0.1591***	0.2348***
			(0.0276)	(0.0195)			(0.0118)	(0.0122)
(CG+Div)			0.1774***	0.0966***			0.8036***	0.1869***
			(0.0167)	(0.0093)			(0.0080)	(0.0077)
(1-Recent) × Same Company			−4.1372	−138.96***			−3082.7***	1360.6***
			(24.700)	(31.897)			(541.93)	(523.24)
Recent			−11.814	−50.965***			77830***	43680***
			(11.911)	(15.008)			(811.97)	(651.21)
Controls	N	Y	N	Y	N	Y	N	Y
Account FE	Y	Y	Y	Y	N	N	N	N
Year-Month FE	Y	Y	Y	Y	N	N	N	N
Account × Year-Month FE	N	N	N	N	Y	Y	Y	Y
Fund × Year-Month FE	N	N	N	N	Y	Y	Y	Y
R-squared	0.0174	0.1183	0.0181	0.1183	0.3544	0.3975	0.3550	0.3975
N	4,136,968	4,136,968	4,136,968	4,136,968	18,340,436	18,340,436	18,340,436	18,340,436

Table 6: Attention Constraints and the Salience Effect

This table tests whether the salience wedge is larger among investors who are more attention constrained. The sample is split by the number of funds held in the first month of the sample: investors holding at least 6 funds (above the median of 6) are shown in columns (1) and (3), while those holding 5 or fewer funds appear in columns (2) and (4). The dependent variable is total consumption. *Recent* is the share of gains from funds purchased in the previous month. *Same Company* is the share of gains from older holdings that were purchased earlier than $t-1$ and belong to the same fund company as the investor's most recent purchase in $t-1$. All regressions control for total fund holdings and the number of funds held. Account fixed effects and year-month fixed effects are included in all specifications. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
	More constrained	Less constrained	More constrained	Less constrained
CG × (1-Recent) × Same Company	0.0312**	0.0110		
	(0.0136)	(0.0177)		
CG × Recent	0.0119***	0.0112***		
	(0.0038)	(0.0040)		
CG	0.0007	0.0055***		
	(0.0013)	(0.0016)		
(1-Recent) × Same Company	-36.949***	-20.198		
	(13.365)	(30.059)		
Recent	-21.693***	-15.476		
	(6.2836)	(27.530)		
(CG+Div) × (1-Recent) × Same Company			0.0290**	0.0136***
			(0.0134)	(0.0039)
(CG+Div) × Recent			0.0120***	0.0116***
			(0.0037)	(0.0039)
(CG+Div)			0.0007	0.0054***
			(0.0013)	(0.0016)
(1-Recent) × Same Company			-41.027***	91.818
			(9.1406)	(64.847)
Recent			-25.829***	-6.0007
			(4.3826)	(12.200)
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.0003	0.0003	0.0003	0.0003
N	1,935,134	2,201,834	1,935,134	2,201,834

Table 7: Selective Attention to Gains versus Losses

This table tests whether the salience wedge is larger for gains than for losses. The sample is split by the sign of capital gains on older same-company holdings: account-months with gains on older same-company holdings are shown in columns (1) and (3), while account-months with losses on older same-company holdings are shown in columns (2) and (4). The dependent variable is total consumption. *Recent* is the share of gains from funds purchased in the previous month. *Same Company* is the share of gains from older holdings that comes from funds belonging to the same fund company as the investor's most recent purchase. All regressions control for total fund holdings and the number of funds held. Account fixed effects and year-month fixed effects are included in all specifications. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Dep. Var.: Total Consumption	Gain	Loss	Gain	Loss
CG × (1-Recent) × Same Company	0.0330***	-0.0035		
	(0.0128)	(0.0268)		
CG × Recent	0.0156**	0.0071		
	(0.0062)	(0.0092)		
CG	-0.0023	0.0044		
	(0.0033)	(0.0035)		
(1- Recent) × Same Company	-3.0783	-18.556***		
	(40.256)	(2.2127)		
Recent	55.813***	-16.039***		
	(14.049)	(2.3259)		
(CG+Div) × (1-Recent) × Same Company			0.0322**	-0.0040
			(0.0126)	(0.0274)
(CG+Div) × Recent			0.0151**	0.0061
			(0.0061)	(0.0098)
(CG+Div)			-0.0022	0.0055
			(0.0033)	(0.0041)
(1-Recent) × Same Company			68.746	-18.234***
			(55.050)	(1.1421)
Recent			23.084	-18.781***
			(18.007)	(2.2829)
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.0005	0.0002	0.0005	0.0002
N	724,043	454,574	724,043	454,574

Table 8: Performance Salience After the July 2020 Interface Change

This table reports reduced-form evidence from the July 2020 interface change that allowed investors to customize the order of their holdings. The dependent variable is total consumption in t. The independent variables of interest in columns (1) and (2) (columns (3) and (4)) are capital gains (or capital gains plus dividends) from the previous month, *Top Performer*, defined as the share of gains generated by the top-performing fund in $t-1$, and *After*, an indicator for July 2020 and later. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × Top Performer × After	0.0394***	0.0377***		
	(0.0090)	(0.0090)		
CG × Top Performer	0.0043	0.0010		
	(0.0056)	(0.0056)		
CG × After	0.0084**	0.0048		
	(0.0035)	(0.0036)		
CG	0.0047**	0.0027		
	(0.0022)	(0.0022)		
Top Performer × After	-20.086**	-21.157**		
	(8.4329)	(8.6045)		
Top Performer	-11.016***	-10.694***		
	(3.8916)	(3.8972)		
(CG+Div) × Top Performer × After			0.0349***	0.0339***
			(0.0088)	(0.0087)
(CG+Div) × Top Performer			0.0060	0.0029
			(0.0055)	(0.0055)
(CG+Div) × After			0.0095***	0.0059*
			(0.0035)	(0.0035)
(CG+Div)			0.0042*	0.0019
			(0.0022)	(0.0021)
Top Performer × After			-23.775***	-24.778***
			(7.4832)	(7.6801)
Top Performer			-8.9608***	-8.6959***
			(3.2432)	(3.2850)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.0001	0.0003	0.0001	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table 9: Salience Exposure and Aggregate Consumption Responses

This table examines whether fund-level salience effects survive aggregation to the investor-group level. Investors are sorted into terciles based on their time-series average exposure to recently purchased fund holdings, measured as the share of recent holdings over total portfolio holdings. Panel A uses capital gains as the gain measure, while Panel B uses capital gains plus dividends. Columns (1) to (3) aggregate variables to the monthly level, whereas columns (4) to (6) use quarterly aggregates. Control variables include total fund holdings and the number of funds held, where indicated. All regressions include account fixed effects and year-month/quarter fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	Monthly			Quarterly		
	(1)	(2)	(3)	(4)	(5)	(6)
	Bottom	Middle	Top	Bottom	Middle	Top
Panel A. Capital Gains						
CG	0.0099**	0.0146***	0.0217***	0.0210**	0.0240**	0.0453***
	(0.0046)	(0.0039)	(0.0039)	(0.0105)	(0.0093)	(0.0093)
Holdings	0.0012***	0.0019***	0.0018***	0.0057***	0.0069***	0.0077***
	(0.0004)	(0.0002)	(0.0002)	(0.0016)	(0.0010)	(0.0009)
#Funds	1384.2***	1081.3***	1683.9***	5154.1***	4386.4***	5880.0***
	(467.83)	(349.78)	(291.87)	(1763.4)	(1336.4)	(1123.2)
Account FE	Y	Y	Y	Y	Y	Y
Year-Month/Quarter FE	Y	Y	Y	Y	Y	Y
R-squared	8.87E-05	0.0003	0.0004	0.0003	0.0008	0.0012
N	1,378,720	1,379,398	1,378,850	420,005	420,014	420,009
Panel B. Capital Gains+Dividends						
CG+Div	0.0068***	0.0108***	0.0182***	0.0114**	0.0137***	0.0299***
	(0.0023)	(0.0022)	(0.0025)	(0.0050)	(0.0050)	(0.0055)
Holdings	0.0011***	0.0018***	0.0017***	0.0053***	0.0066***	0.0074***
	(0.0004)	(0.0002)	(0.0002)	(0.0016)	(0.0010)	(0.0009)
# Funds	1376.9***	1071.9***	1661.5***	5143.4***	4364.9***	5808.9***
	(467.84)	(349.78)	(291.89)	(1763.6)	(1336.5)	(1123.2)
Account FE	Y	Y	Y	Y	Y	Y
Year-Month/Quarter FE	Y	Y	Y	Y	Y	Y
R-squared	9.36E-05	0.0003	0.0004	0.0003	0.0008	0.0013
N	1,378,720	1,379,398	1,378,850	420,005	420,014	420,009

Internet Appendix

A Additional Empirical Evidence

A.1 Data and Variable Construction

Transaction-frequency distribution. Figure A1 documents the trading-activity distribution used to motivate the exclusion of the most active investors in the main sample. The key pattern is that the top 10% of users form an excessive-trading tail: as noted in the main data section, they trade about 120 times per month on average, roughly four times as often as investors in the next decile and about eight times as often as investors in the third-highest decile. These hyperactive users are therefore likely to monitor portfolios, process gains, and allocate attention differently from the broader investor population. Their display-salience and limited-attention effects may be economically different from those of ordinary users, so excluding them makes the main sample more appropriate for testing whether platform rankings shape consumption through attention. Panel B shows that this trading-frequency pattern is not simply a wealth pattern, since mutual fund holdings do not rise in proportion to transaction frequency.

Variable definitions. Table A1 collects the investment, salience, identification, and consumption variables that appear in the empirical specifications.

A.2 Alternative Settings for Same-Company Identification

The tests in this section address the alternative hypothesis that the same-company effect proxies for unobserved family-level return shocks or correlated investor beliefs, rather than limited attention.

Top-quartile fund-family specification. Table A2 and A3 restrict the same-company definition to top-half and top-quartile fund families, respectively. This specification addresses the concern that same-company membership may proxy for a narrow family-level return shock or investor belief. Large fund families offer more diversified products across asset classes and investment styles, so same-company membership is less likely to capture a single style shock in this subsample. The estimates remain close to the main same-company results. Table A12 summarizes the distribution of funds across fund families.

Timing split among older same-company holdings. Table A5 separates relatively recent and much older same-company holdings. This specification asks whether the same-company response is concentrated among older holdings that remain relatively close to the top of the default display. If the result were driven by a broad fund-family shock, the response should appear more symmetrically across same-company older holdings. Instead, the elevated response is concentrated among relatively recent same-company holdings, supporting the display-rank interpretation.

A.3 Corroborating Interface-Change Evidence

Alternative top-performer definition. Table A6 defines the top-performing fund using cumulative return. The main performance-salience specification defines the top-performing fund using cumulative gains. This alternative uses cumulative return instead, which separates the ranking concept from the level of investment in the fund. The positive and significant triple interaction remains, indicating that the corroborating interface-change result is not sensitive to this alternative ranking definition.

A.4 Alternative Samples and Clustering

Robustness to two-way clustering. Table A7 repeats the same-company specifications with standard errors two-way clustered by account and year-month. This specification accounts for correlated shocks at both levels. The coefficients on $CG \times (1 - Recent) \times Same\,Company$ remain statistically significant in these specifications.

Omitting standalone share terms. The main same-company grouping specification includes two standalone ratio controls: the recent-gain share and the co-grouped older-gain share. These controls are included following the standard practice of including constituent terms in interaction models. Because they are constructed as ratios, one may worry that the standalone share controls are sensitive to months in which the relevant gain denominator is small. Table A8 therefore re-estimates the same-company grouping specification after omitting these standalone share terms, while retaining the RMB gain measure and the two interaction terms. The coefficient on the co-grouped older-gain interaction remains almost unchanged relative to the main specification in Table 4. This confirms that the same-company grouping result is not driven by the standalone ratio controls.

Full-sample same-company specification. The main analysis excludes the top 10% most active investors, who may monitor their portfolios differently from the investors most relevant for limited-attention mechanisms. Table A9 includes those investors back in the sample. The results remain qualitatively similar, showing that the same-company pattern is not driven by the sample restriction.

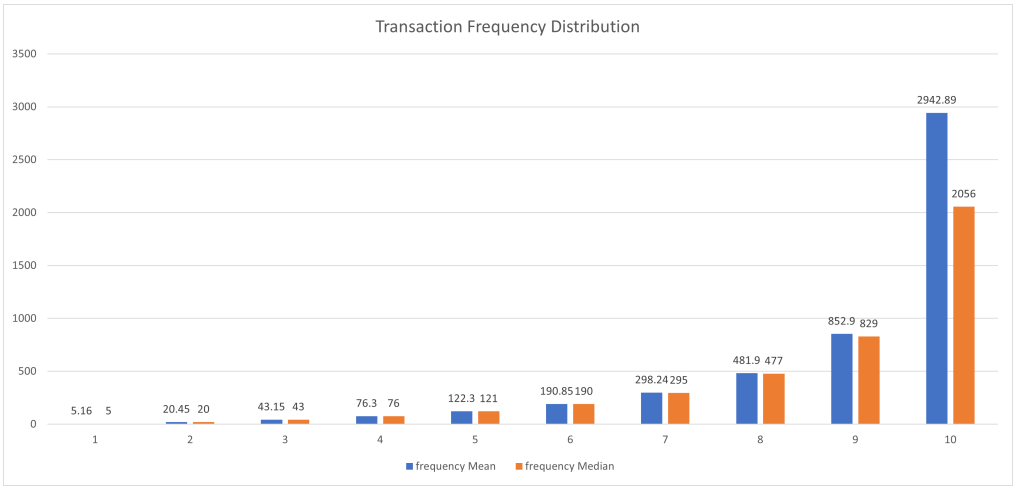
Table A10 repeats the performance-salience specification in the full investor sample. This specification extends the post-July 2020 interface-change evidence from Table 8 to the sample that includes the top 10% most active investors. We include it to show that the corroborating performance-ranking evidence is not specific to the main sample restriction. The estimates continue to support the interpretation that easier access to

performance ranking changes the pass-through from salient gains to spending.

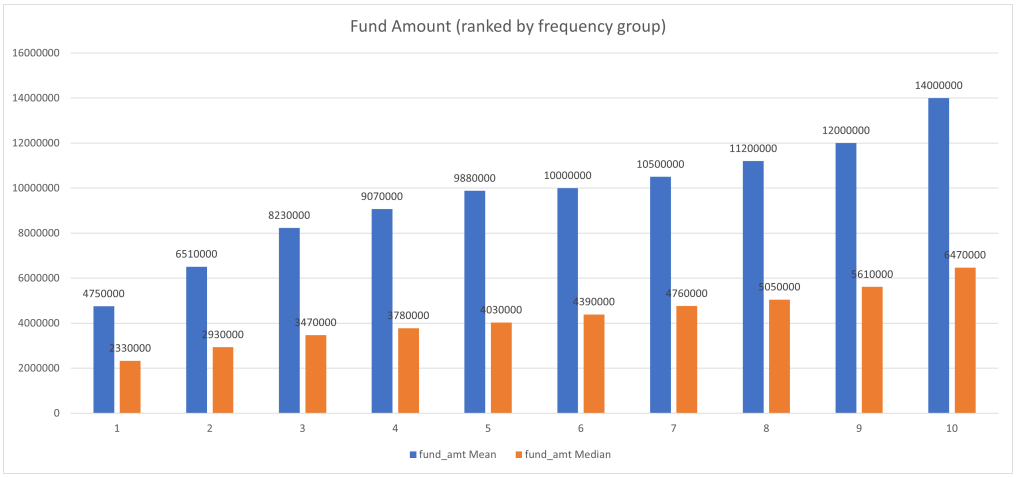
Online retail versus broader consumption. Table A11 repeats the same-company grouping specification separately for purchases on Taobao, Alibaba's main online retail marketplace, and non-Taobao consumption, which includes offline and other non-marketplace purchases. This analysis asks whether the same-company salience effect is limited to online retail purchases or also appears in broader consumption categories. The estimates show that the response is concentrated in non-Taobao consumption, making it less likely that the main result is driven only by online retail impulse purchases.

A.5 Figures and Tables for Appendix A

Figure A1: **Transaction Frequency**



A. Transaction Frequency Distribution



B. Fund Amount (Ranked by Transaction Frequency Deciles)

Notes: Panel A shows the distribution of transaction frequency in the overall sample by decile. Panel B shows mutual fund holdings by transaction-frequency decile. The blue bars denote means, and the orange bars denote medians.

Table A1: Variable Definitions

This table defines the main variables used in the paper.

Variable	Definition
Investment and Gain Variables	
Capital Gains$_{i,t}$	Monthly capital gains or losses from fund investments.
Capital Gains+Dividend$_{i,t}$	Monthly capital gains plus dividends from fund investments.
Holdings$_{i,t}$	Total mutual fund holdings of investor i at the end of month t.
# Funds$_{i,t}$	Number of mutual funds held by investor i at the end of month t.
Redemption$_{i,t}$	Amount of mutual fund shares redeemed by investor i in month t.
Salience and Identification Variables	
Recent$_{i,t}$	Share of month-t gains generated by funds purchased in the previous month under the default display.
Same Company$_{i,t}$	Share of gains from older holdings that comes from funds belonging to the same fund company as the investor's most recent purchase, defined as same-company older-holding gains divided by total older-holding gains.
Top Performer$_{i,t}$	Share of month-t gains generated by the fund with the highest cumulative gains in investor i's portfolio. In Internet Appendix Table A6, the top-performing fund is alternatively defined using cumulative return.
After$_t$	Indicator equal to one for July 2020 and later months, when the platform allowed investors to sort holdings by performance.
Gain/Loss Split$_{i,t}$	Indicator for whether capital gains from older same-company holdings are positive or negative in the gain-loss subsample analysis. Zero-gain observations are excluded from the primary comparison.
Recency Exposure$_i$	Time-series average share of recent holdings over total portfolio holdings for investor i, used to sort investors into terciles in Table 9.
Consumption Variables	
Total Consumption$_{i,t}$	Total monthly spending by investor i recorded through the mobile payment platform.
Taobao$_{i,t}$	Monthly spending on Alibaba's Taobao platform.
Non-Taobao$_{i,t}$	Monthly spending outside Taobao, including in-person transactions such as restaurants and supermarkets.

Table A2: Same-Company Grouping among Top-Half Fund Families

This table repeats the same-company grouping specification using an alternative definition of same-company funds. An older fund is classified as same-company only if it belongs to the same fund company as the investor's most recent purchase and that fund company is in the top 50% fund companies by the number of funds in our sample. The dependent variable is total consumption. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Standard errors are clustered at the account level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0528***	0.0232**		
	(0.0113)	(0.0112)		
CG × Recent	0.0150***	0.0119***		
	(0.0028)	(0.0028)		
CG	0.0035***	0.0026**		
	(0.0011)	(0.0010)		
(1-Recent) × Same Company	-34.390***	-36.015***		
	(13.6200)	(13.9260)		
Recent	-21.140***	-21.562***		
	(6.4512)	(6.6044)		
(CG+Div) × (1-Recent) × Same Company			0.0520***	0.0227**
			(0.0111)	(0.0110)
(CG+Div) × Recent			0.0154***	0.0121***
			(0.0027)	(0.0027)
(CG+Div)			0.0036***	0.0026**
			(0.0010)	(0.0010)
(1-Recent) × Same Company			-36.347***	-38.144***
			(11.6760)	(11.8410)
Recent			-23.917***	-24.430***
			(5.4224)	(5.4926)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	6.97E-05	0.0003	7.30E-05	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A3: Same-Company Grouping among Top-Quartile Fund Families

This table repeats the same-company grouping specification using an alternative definition of same-company funds. An older fund is classified as same-company only if it belongs to the same fund company as the investor's most recent purchase and that fund company is in the top 25% fund companies by the number of funds in our sample. The dependent variable is total consumption. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Standard errors are clustered at the account level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0521***	0.0222*		
	(0.0116)	(0.0115)		
CG × Recent	0.0151***	0.0119***		
	(0.0028)	(0.0028)		
CG	0.0036***	0.0026**		
	(0.0011)	(0.0010)		
(1-Recent) × Same Company	−34.683**	−36.320**		
	(13.9200)	(14.2380)		
Recent	−21.310***	−21.739***		
	(6.5955)	(6.7542)		
(CG+Div) × (1-Recent) × Same Company			0.0516***	0.0219*
			(0.0114)	(0.0113)
(CG+Div) × Recent			0.0155***	0.0121***
			(0.0027)	(0.0027)
(CG+Div)			0.0036***	0.0026***
			(0.0010)	(0.0010)
(1-Recent) × Same Company			−36.813***	−38.628***
			(11.9060)	(12.0800)
Recent			−24.127***	−24.649***
			(5.5205)	(5.5947)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.0002	0.0009	0.0002	0.0009
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A4: Same-Company Grouping among Top-Decile Fund Families by Investor-Holding AUM

This table repeats the same-company grouping specification using an alternative definition of same-company funds. An older fund is classified as same-company only if it belongs to the same fund company as the investor's most recent purchase and that fund company is among the top 10% fund companies by AUM based on in-sample investor holdings, corresponding to 13 top fund families. The dependent variable is total consumption. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Standard errors are clustered at the account level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0647***	0.0319**		
	(0.0137)	(0.0136)		
CG × Recent	0.0151***	0.0118***		
	(0.0028)	(0.0028)		
CG	0.0036***	0.0026**		
	(0.0011)	(0.0010)		
(1-Recent) × Same Company	12.971	12.937		
	(26.411)	(26.768)		
Recent	−15.807	−15.926		
	(11.102)	(11.5290)		
(CG+Div) × (1-Recent) × Same Company			0.0619***	0.0295***
			(0.0134)	(0.0134)
(CG+Div) × Recent			0.0156***	0.0121***
			(0.0027)	(0.0027)
(CG+Div)			0.0037***	0.0026***
			(0.0010)	(0.0010)
(1-Recent) × Same Company			17.159	16.797
			(22.641)	(22.845)
Recent			−17.721	−17.878
			(11.809)	(12.256)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	6.84E-05	0.0003	7.12E-05	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A5: Same-Company Grouping by Timing of Older Holdings

This table repeats the same-company grouping specification after splitting older same-company holdings into two groups: relatively recent older holdings purchased between $t-2$ and $t-4$, and much older holdings purchased in $t-5$ or before. The dependent variable is total consumption. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG of last-month investment	0.0147***	0.0117***		
	(0.0028)	(0.0028)		
CG of older fund: same company, $t-2$ to $t-4$	0.1128***	0.0683***		
	(0.0187)	(0.0186)		
CG of older fund: same company, $t-5$ or before	0.0158	-0.0204		
	(0.0200)	(0.0200)		
CG of all fund	0.0036***	0.0026		
	(0.0011)	(0.0010)		
CG last/CG all	-5.0134	-5.2066		
	(8.8969)	(9.0380)		
CG older: same company, $t-2$ to $t-4$/CG all	-122.77***	-126.02***		
	(40.9210)	(41.5980)		
CG older: same company, $t-5$ or before/CG all	3.2673	2.2620		
	(18.0880)	(18.3750)		
CG+Div of last-month investment			0.0151***	0.0120***
			(0.0027)	(0.0027)
CG+Div of older fund: same company, $t-2$ to $t-4$			0.1100***	0.0656***
			(0.0183)	(0.0182)
CG+Div of older fund: same company, $t-5$ or before			0.0139	-0.0218
			(0.0196)	(0.0195)
CG+Div of all fund			0.0036***	0.0026***
			(0.0010)	(0.0010)
CG+Div last/CG+Div all			-19.052***	-19.461***
			(7.2030)	(7.3041)
CG+Div older: same company, $t-2$ to $t-4$/CG+Div all			-77.521***	-80.701***
			(22.9350)	(23.3170)
CG+Div older: same company, $t-5$ or before/CG+Div all			-23.675	-25.148
			(15.7510)	(15.9970)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.00007648	0.0003119	0.00007920	0.0003128
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A6: Performance-Salience Evidence with Top Performer Defined by Cumulative Return

This table reports the corroborating post-July 2020 performance-salience specification when the top-performing fund is defined by cumulative return rather than cumulative gains. The sample excludes the top 10% most active investors. The dependent variable is total consumption. The independent variables of interest in Columns (1) and (2) (Columns (3) and (4)) are capital gains (+*dividends*) in the previous month, *Top Performer*, *After*, and the corresponding interaction terms. *Top Performer* is defined using cumulative return. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Dep. Var.: Total Consumption	Capital gain		Capital gain + dividend	
CG (or CG+Div) × Top performer × After	0.0316**	0.0304**	0.0276**	0.0270**
	(0.01)	(0.01)	(0.0097)	(0.0097)
CG (or CG+Div) × Top performer	0.0031	0.0013	0.0043	0.0028
	(0.0062)	(0.0062)	(0.0061)	(0.0061)
CG (or CG+Div)× After	0.0152***	0.0109***	0.0157***	0.0115***
	(0.003)	(0.003)	(0.003)	(0.003)
CG (or CG+Div)	0.0046*	0.0018	0.0043*	0.0012
	(0.002)	(0.002)	(0.002)	(0.002)
Top performer	-0.9156	-0.4571	-10.102	-9.6074
	(7.9071)	(7.9467)	(7.5311)	(7.5169)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.0001	0.0003	0.0001	0.0003
N	4,135,923	4,135,923	4,135,923	4,135,923

Table A7: Same-Company Results with Two-Way Clustering

This table reports robustness results using standard errors two-way clustered by account and year-month. The table repeats the same-company grouping identification specification. The dependent variable is total consumption. *Recent* is the share of gains from funds purchased in the previous month $t-1$. *Same Company* is the share of gains from holdings that were purchased earlier than $t-1$ and belong to the same fund company as the investor's most recent purchase in $t-1$. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0504***	0.0215**		
	(0.0128)	(0.0091)		
CG × Recent	0.0150***	0.0119***		
	(0.0077)	(0.0062)		
CG	0.0035***	0.0026**		
	(0.0013)	(0.0012)		
(1-Recent) × Same Company	−34.552***	−36.145***		
	(10.3060)	(10.5550)		
Recent	−21.048***	−21.460***		
	(5.1303)	(5.2647)		
(CG+Div) × (1-Recent) × Same Company			0.0497***	0.0211**
			(0.0124)	(0.0085)
(CG+Div) × Recent			0.0154***	0.0121***
			(0.0073)	(0.0059)
(CG+Div)			0.0036***	0.0026**
			(0.0013)	(0.0012)
(1-Recent) × Same Company			−36.416***	−38.171***
			(8.3520)	(8.4354)
Recent			−23.815***	−24.316***
			(5.3411)	(5.4042)
Controls	N	Y	N	Y
Account & Year-Month FE	Y	Y	Y	Y
R-squared	6.96E-05	0.0003	7.31E-05	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A8: Same-Company Grouping: Omitting the Standalone Share Terms

This table repeats the same-company grouping specification omitting the standalone *Recent* and $(1 - Recent) \times$ *Same Company* share terms while retaining CG and other interaction terms with CG. The dependent variable is total consumption. *Recent* is the share of gains from funds purchased in the previous month $t-1$. *Same Company* is the share of gains from holdings that were purchased earlier than $t-1$ and belong to the same fund company as the investor's most recent purchase in $t-1$. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0504***	0.0215**		
	(0.0108)	(0.0108)		
CG × Recent	0.0150***	0.0119***		
	(0.0028)	(0.0028)		
CG	0.0035***	0.0026**		
	(0.0011)	(0.0010)		
(CG+Div) × (1-Recent) × Same Company			0.0498***	0.0211**
			(0.0106)	(0.0106)
(CG+Div) × Recent			0.0154***	0.0121***
			(0.0027)	(0.0027)
(CG+Div)			0.0036***	0.0026**
			(0.0010)	(0.0010)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	6.66E-05	0.0003	6.95E-05	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A9: Same-Company Grouping with the Full Investor Sample

This table repeats the same-company grouping specification for the full investor sample, including the top 10% most active investors. The dependent variable is total consumption. *Recent* is the share of gains from funds purchased in the previous month $t-1$. *Same Company* is the share of gains from holdings that were purchased earlier than $t-1$ and belong to the same fund company as the investor's most recent purchase in $t-1$. Columns (1) and (2) use capital gains, while columns (3) and (4) use capital gains plus dividends. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × (1-Recent) × Same Company	0.0475***	0.0171*		
	(0.0094)	(0.0094)		
CG × Recent	0.0133***	0.0101***		
	(0.0024)	(0.0024)		
CG	0.0037***	0.0029***		
	(0.0010)	(0.0010)		
(1- Recent) × Same Company	-8.3408	-9.0161		
	(13.636)	(14.116)		
Recent	-13.707*	-13.867		
	(8.2053)	(8.4756)		
(CG+Div) × (1-Recent) × Same Company			0.0473***	0.0170*
			(0.0093)	(0.0092)
(CG+Div) × Recent			0.0135***	0.0101***
			(0.0024)	(0.0024)
(CG+Div)			0.0037***	0.0029***
			(0.0009)	(0.0009)
(1-Recent) × Same Company			-34.458***	-36.197***
			(9.8645)	(10.005)
Recent			-23.442***	-23.976***
			(4.8255)	(4.8875)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	7.64E-05	0.0004	8.099E-05	0.0004
N	4,596,797	4,596,797	4,596,797	4,596,797

Table A10: Performance-Salience Evidence with the Full Investor Sample

This table presents full-sample performance-salience evidence after the July 2020 display-setting change, including the top 10% most active investors. The dependent variable is total consumption. The independent variables of interest in Columns (1) and (2) (Columns (3) and (4)) are capital gains (+*dividends*) in the previous month, *Top Performer*, *After*, and the corresponding interaction terms. *Top Performer* is the share of gains generated by the top-performing fund, and *After* is an indicator for July 2020 and later. Columns (2) and (4) include controls for total fund holdings and the number of funds held. All specifications include account fixed effects and year-month fixed effects. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Total Consumption	(1)	(2)	(3)	(4)
CG × Top performer × After	0.0351***	0.0355***		
	(0.0085)	(0.0085)		
CG × Top performer	0.0058	0.0021		
	(0.0053)	(0.0053)		
CG × After	0.0111***	0.0065**		
	(0.0032)	(0.0032)		
CG	0.0040**	0.0022		
	(0.0020)	(0.0020)		
Top performer ×After	-26.309***	-27.234***		
	(8.5893)	(8.7814)		
Top performer	-5.3131*	-5.1616*		
	(3.0577)	(2.9799)		
(CG+Div) × Top performer × After			0.0302***	0.0312***
			(0.0083)	(0.0083)
(CG+Div) × Top performer			0.0074	0.0039
			(0.0052)	(0.0052)
(CG+Div) × After			0.0122***	0.0075**
			(0.0031)	(0.0031)
(CG+Div)			0.0036*	0.0016
			(0.0019)	(0.0019)
Top performer × After			-24.295***	-25.312***
			(7.9477)	(8.1825)
Top performer			-9.0234***	-8.7750***
			(3.2661)	(3.3102)
Controls	N	Y	N	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	0.0001	0.0004	0.0001	0.0004
N	4,596,797	4,596,797	4,596,797	4,596,797

Table A11: Same-Company Grouping: Online and Non-Online Consumption

This table reports same-company grouping specification separately for online spending on Taobao and broader non-online consumption. The dependent variable is Taobao consumption in Columns (1) and (2), and non-Taobao consumption in Columns (3) and (4). *Recent* is the share of gains from funds purchased in the previous month $t-1$. *Same Company* is the share of gains from holdings that were purchased earlier than $t-1$ and belong to the same fund company as the investor's most recent purchase in $t-1$. Columns (1) and (3) use capital gains, while Columns (2) and (4) use capital gains plus dividends. All regressions control for total fund holdings and the number of funds held. Account fixed effects and year-month fixed effects are included in all specifications. The reported R-squared is the within R-squared, which measures explanatory power after removing variation absorbed by account and year-month fixed effects. Robust standard errors are clustered at the account level. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.: Consumption	(1)	(2)	(3)	(4)
	Taobao Consumption		Non-Taobao Consumption	
CG × (1-Recent) × Same Company	0.0006		0.0221**	
	(0.0026)		(0.0097)	
CG × Recent	0.0010		0.0104***	
	(0.0006)		(0.0025)	
CG	0.0005***		0.0021**	
	(0.0002)		(0.0010)	
(1-Recent) × Same Company	2.0781		-36.667***	
	(1.7423)		(12.6230)	
Recent	-1.8162***		-18.958***	
	(0.5610)		(5.9714)	
(CG+Div) × (1-Recent) × Same Company		0.0006		0.0218**
		(0.0026)		(0.0096)
(CG+Div) × Recent		0.0011*		0.0104***
		(0.0006)		(0.0025)
(CG+Div)		0.0005**		0.0021**
		(0.0002)		(0.0009)
(1-Recent) × Same Company		2.9232***		-39.059***
		(0.8489)		(10.9470)
Recent		-2.1658***		-21.056***
		(0.3992)		(5.0443)
Controls	Y	Y	Y	Y
Account FE	Y	Y	Y	Y
Year-Month FE	Y	Y	Y	Y
R-squared	2.51E-05	2.57E-05	3.00E-04	0.0003
N	4,136,968	4,136,968	4,136,968	4,136,968

Table A12: Summary Statistics of Fund Family Size

This table reports summary statistics for the number of funds within each fund family. The corresponding statistics represent all fund families in the Chinese mutual fund market at the beginning of 2019. Top 50% and Top 25% fund companies are defined by the number of funds within the family.

Sample	Count	Mean	Std	Min	1%	25%	50%	75%	99%	Max
All fund companies	136.00	43.62	47.74	1.00	1.00	8.75	24.00	63.50	196.40	219.00
Top 50% fund companies	68.00	77.22	47.43	24.00	26.01	44.00	64.00	89.50	207.61	219.00
Top 25% fund companies	34.00	112.29	43.69	65.00	65.33	79.00	91.00	139.50	213.39	219.00

B Standard Portfolio Choice Model

In the following, we first lay out the backward induction solution procedure starting in period T for the finite-horizon setting and then move on to the infinite horizon.

B.1 Finite horizon

Consider a model as in Merton (1969), assume that returns are iid log-normally distributed $R_t = e^{r_t} \sim log - N(\mu_r, \sigma_r^2)$. The agent lives for $t = \{1, 2, ..., T\}$ periods. The maximization problem in period $T - i$ is

$$\max\{E_{T-i}[u(C_{T-i}) + \beta V_{T-i+1}(W_{T-i+1})]\} \text{ subject to } W_{T-i+1} = (W_{T-i} - C_{T-i})R_{T-i+1}$$

and characterized by the following first-order condition:

$$\Rightarrow C^*_{T-i} = \frac{W_{T-i}}{1 + (\beta E_{T-i}[R^{1-\theta}_{T-i+1} Q^0_{T-i+1}])^{-\frac{1}{\theta}}} = W_{T-i}\rho_{T-i}$$

$$\text{with } Q^\tau_{T-i} = R^{1-\theta}_{T-i+\tau}\rho^{1-\theta}_{T-i+\tau} \prod_{j=1}^{\tau-1} R^{1-\theta}_{T-i+j}(1 - \rho_{T-i+j})^{1-\theta}$$

The value function is given by:

$$V_{T-i}(W_{T-i}) = u(W_{T-i})Q^0_{T-i}$$

$$Q^0_{T-i} = \rho^{1-\theta}_{T-i} + (1 - \rho_{T-i})^{1-\theta}\beta E_{T-i}[R^{1-\theta}_{T-i+1} Q^0_{T-i+1}])$$

Now with iid returns $\rho_{T-i} = \frac{1}{1+(\beta E_t[R^{1-\theta}_{t+1}])^{\frac{1}{\theta}} + ... + (\beta E_t[R^{1-\theta}_{t+1}])^{\frac{i}{\theta}}}$. Therefore, each period the agent consumes a constant fraction out of his wealth.

B.2 Infinite horizon

Let's move on to the $T \to \infty$ case which can be derived by taking the $T - i$ case to the limit or alternatively directly via the Bellman equation

$$V_t(W_t, C_t^{t-1}, C_{t+1}^{t-1}, ...) = max\{u(C_t) + \beta E_t[V_{t+1}(W_{t+1}, C_{t+1}^t, C_{t+2}^t ...)]\}$$

subject to the agent's budget constraint:

$$W_{t+1} = (W_t - C_t)R_{t+1}$$

Under CRRA utility, the first-order condition is then given by:

$$C_t^{-\theta} = (W_t - C_t)^{-\theta}\psi$$

The solution procedure follows a guess and verify approach. Guess that the solution has the following structure:

$$C_t^* = W_t\rho_t \text{ and } V_t(W_t) = u(W_t)Q_t^0$$

With ρ_t and Q_t^0 being iid, dependent on the realization of R_t only and independent of calendar time or contemporaneous wealth W_t. The first-order condition can be derived under the guessed solution which then remains to be verified. Let's start with the left hand side, the derivative of the first part of the value function, consumption utility and gain-loss utility over contemporaneous consumption is given by:

$$\frac{\partial(u(C_t))}{\partial C_t} = C_t^{-\theta}$$

Under the guessed solution each future consumption level can be iterated to today's

consumption-savings decision:

$$C_{t+\tau} = W_{t+\tau}\rho_{t+\tau} = (W_t - C_t)R_{t+\tau}\rho_{t+\tau}\prod_{j=1}^{\tau-1} R_{t+j}(1-\rho_{t+j})$$

Moreover, note that for iid returns $E_t[R_{t+1}^{1-\theta}\rho_{t+1}^{1-\theta}] = E_t[R_{t+\tau}^{1-\theta}\rho_{t+\tau}^{1-\theta}]$ for any $\tau \geq 1$ thus the infinite sum in the value function simplifies considerably:

$$= E_t[R_{t+1}^{1-\theta}\rho_{t+1}^{1-\theta}]\sum_{\tau=1}^{\infty}\beta^{\tau}(E_t[R_{t+1}^{1-\theta}(1-\rho_{t+1})^{1-\theta}])^{\tau-1} = \frac{\beta E_t[R_{t+1}^{1-\theta}\rho_{t+1}^{1-\theta}]}{1-\beta E_t[R_{t+1}^{1-\theta}(1-\rho_{t+1})^{1-\theta}]} = Q$$

The second part in the first-order condition refers to the first derivative of the continuation value with respect to C_t. The marginal value of savings is given by:

$$\frac{d\beta V_{t+1}(W_{t+1})}{dC_t} = \frac{\partial u((W_t - C_t)R_{t+1})Q_{t+1}^0}{dC_t} = -(W_t - C_t)^{-\theta}\beta E_t[R_{t+1}^{1-\theta}Q_{t+1}^0]$$

Note that again for iid returns $\beta E_t[R_{t+1}^{1-\theta}Q_{t+1}^0] = \beta E_{t+\tau-1}[R_{t+\tau}^{1-\theta}Q_{t+\tau}^0] = \psi$ thus:

$$\psi = \beta E_t[R_{t+1}^{1-\theta}Q_{t+1}^0] = \beta E_t[R_{t+1}^{1-\theta}\rho_{t+1}^{1-\theta} + R_{t+1}^{1-\theta}(1-\rho_{t+1})^{1-\theta}\psi]$$

The expression left over in the first-order condition is given by:

$$(W_t - C_t)^{-\theta}\beta E_t[R_{t+1}^{1-\theta}Q_{t+1}^0] = (W_t - C_t)^{-\theta}\psi$$

Accordingly, ρ_t varies solely with the realization of R_t and is thus iid which verifies the guess about ρ_t:

$$C_t^* = \frac{W_t}{1+\psi^{\frac{1}{\theta}}} = W_t\rho_t$$

And the value function can be easily used to verify the guess about Q_t^0 being iid and

varying with the realization of R_t:

$$V_t(W_t) = u(W_t)Q_t^0 = u(W_t)(\rho_t^{1-\theta} + (1-\rho_t)^{1-\theta}\psi)$$

The three nonlinear equations for Q, ψ and ρ_t can be solved numerically: For any parameter combination the fixed point of Q, ψ and $\rho(Q,\psi)$, which gives out $\rho_t = \rho(R_t)$ for any R_t, can be found. The guess and verify procedure revealed a legal equilibrium.

Now, one may consider a return $R_t = R^f + (\tilde{R}_t - R^f)\alpha_{t-1}$ with $log(\tilde{R}_t) = r_t \sim N(r - \frac{\sigma_r^2}{2}, \sigma_r^2)$ and $R^f = e^{r^f}$, Campbell and Viceira (2002) show that a good approximation to the rate of return is

$$log(R_t) = r_t = r^f + \alpha_{T-1}\phi_t + \alpha_{t-1}\frac{\sigma_r^2}{2} - \alpha_{t-1}^2\frac{\sigma_r^2}{2} \text{ with } \phi_t \sim N(0,1).$$

As shown in Campbell and Viceira (2002), the optimal portfolio share for CRRA utility is then given by

$$\alpha_t = \frac{E_t[r_{t+1} - r^f]}{\theta\sigma_r^2}.$$

And in a model with many risky assets we have the vector

$$\boldsymbol{\alpha_t} = \frac{1}{\theta}\Sigma_t^{-1}E_t[r_{t+1} - r^f]$$

with the matrix Σ_t containing variances and covariances of excess returns.

B.3 Salience-Weighted Consumption: Formal Derivation

This section extends the infinite-horizon CRRA model of Section B.2 to incorporate limited and selective attention following Manzini and Mariotti (2014). We introduce heterogeneous consideration probabilities $\{\pi_j\}_{j=1}^J$ tied to display rank, derive

the salience-weighted MPC expression, and show that the empirical interaction specification of Section 3 arises as a direct implication of the model.

Setup. The investor holds J funds with end-of-period values $W_{j,t}$, so total wealth is $W_t = \sum_{j=1}^{J} W_{j,t}$. Returns are iid log-normally distributed as in Section B.2. In each period, fund j enters the investor's consideration set with probability $\pi_j \in [0,1]$, where $\mathbf{1}_j \sim \text{Bernoulli}(\pi_j)$ independently across funds and periods, and

$$\pi_j \;=\; \pi(\text{rank}_j)\,, \qquad \pi' < 0, \tag{B1}$$

so that π_j is strictly decreasing in display rank following the prominence ordering of Manzini and Mariotti (2014). The investor's perceived wealth is

$$\widetilde{W}_t \;=\; \sum_{j=1}^{J} \mathbf{1}_j\, W_{j,t}. \tag{B2}$$

The investor maximizes the standard infinite-horizon CRRA objective

$$\max_{\{C_t\}} \; \mathbb{E}\left[\sum_{\tau=0}^{\infty} \beta^{\tau} \frac{C_{t+\tau}^{1-\theta}}{1-\theta}\right] \tag{B3}$$

subject to the perceived budget constraint $\widetilde{W}_{t+1} = (\widetilde{W}_t - C_t)\bar{R}_{t+1}$, where $\bar{R}_{t+1}$ is the portfolio gross return. The realized budget constraint remains $W_{t+1} = (W_t - C_t)\bar{R}_{t+1}$.

Guess-and-verify. The Bellman equation conditional on $\widetilde{W}_t$ is

$$V(\widetilde{W}_t) \;=\; \max_{C_t} \left\{ \frac{C_t^{1-\theta}}{1-\theta} \;+\; \beta\, \mathbb{E}_t\Big[V\Big((\widetilde{W}_t - C_t)\bar{R}_{t+1}\Big)\Big] \right\}. \tag{B4}$$

Conjecture $V(\widetilde{W}_t) = \kappa\,\widetilde{W}_t^{1-\theta}/(1-\theta)$ and $C_t^* = \rho\,\widetilde{W}_t$ for constants $\kappa, \rho > 0$. The first-order condition yields

$$\rho^{-\theta} \;=\; \beta\,\mathbb{E}_t\left[\bar{R}_{t+1}^{1-\theta}\right] \cdot (1-\rho)^{-\theta}\kappa, \tag{B5}$$

which is identical to the fixed-point condition in Section B.2. Since this condition depends only on (β, θ) and the return process, the consumption-wealth ratio ρ is the same as in the frictionless case—consideration probabilities affect which wealth the investor acts on, but not the fraction she consumes out of perceived wealth. Substituting back into the Bellman equation verifies the guess: $\kappa = \rho^{1-\theta} + \beta\,\mathbb{E}[\bar{R}_{t+1}^{1-\theta}](1-\rho)^{1-\theta}\kappa$, which has a unique positive solution under the standard condition $\beta\,\mathbb{E}[\bar{R}^{1-\theta}] < 1$.

Expected consumption and fund-level MPC. Since $C_t^* = \rho\,\widetilde{W}_t$, taking expectations over the consideration set gives

$$\mathbb{E}[C_t^* \mid W_t] \;=\; \rho \sum_{j=1}^{J} \pi_j\, W_{j,t}. \tag{B6}$$

The fund-level MPC out of a gain $\Delta W_{j,t}$ on fund j is

$$\text{MPC}_j \;\equiv\; \frac{\partial\,\mathbb{E}[C_t^* \mid W_t]}{\partial W_{j,t}} \;=\; \rho \cdot \pi_j. \tag{B7}$$

The frictionless Merton benchmark is the special case $\pi_j = 1$ for all j, giving $\text{MPC}_j = \rho$ and $\mathbb{E}[C_t^*] = \rho W_t$. The multi-asset portfolio share under the Campbell-Viceira approximation, $\alpha_{j,t} = \theta^{-1}\Sigma_t^{-1}\mathbb{E}_t[r_{j,t+1} - r^f]$, is unaffected by $\{\pi_j\}$ since ρ is unchanged, so salience alters the consumption response to wealth shocks without distorting long-run portfolio weights.

Mapping to the interaction specification. Partition the portfolio into recently purchased funds $\mathcal{R}$ with consideration probability π^R and older holdings $\mathcal{O}$ with $\pi^O < \pi^R$. Let $\text{CG}_{i,t-1} = \text{CG}^R_{i,t-1} + \text{CG}^O_{i,t-1}$ denote total gains and $\text{Recent}_{i,t-1} = \text{CG}^R_{i,t-1}/\text{CG}_{i,t-1}$ the recent gain share. From equation (B6):

$$\mathbb{E}[C^*_{i,t}] \;=\; \underbrace{\rho\pi^O}_{\beta_2}\cdot\text{CG}_{i,t-1} \;+\; \underbrace{\rho(\pi^R-\pi^O)}_{\beta_1}\cdot\text{CG}_{i,t-1}\times\text{Recent}_{i,t-1} \;+\; \text{other terms}, \quad \text{(B8)}$$

where "other terms" collects the contribution of total holdings to consumption, absorbed by controls in the empirical specification. This is precisely the structure of Equation (1). The standard-model null $\pi^R = \pi^O$ implies $\beta_1 = 0$; the estimated $\hat{\beta}_1 > 0$ in Table 2 identifies the attention gap $\hat{\pi}^R - \hat{\pi}^O = \hat{\beta}_1/\rho$.

Extensions. Two extensions of equation (B7) generate the subsidiary predictions of Sections 4.2 and 4.1. First, allowing π_j to depend on the sign of $\Delta W_{j,t}$ as in Karlsson et al. (2009) and Olafsson and Pagel (2025), with $\partial\pi/\partial\,\text{sign} > 0$, implies MPC_j is larger for gains than for losses and that this asymmetry is amplified for high-ranked funds, delivering the prediction tested in Table 7. Second, imposing a fixed total attention budget $\Pi = \sum_{j=1}^{J}\pi_j$, a larger portfolio ($J$ higher) forces lower average π_j; because attention is allocated preferentially to higher-ranked funds, the gap $\pi^R - \pi^O$ widens with J, so $\beta_1 = \rho(\pi^R - \pi^O)$ is increasing in portfolio size. This delivers the prediction tested in Table 6.