# Divine Catalysts: Religion and Portfolio Choices*

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**Abstract**

Does religion shape individual portfolio choices? To answer this question, we examine whether the *same* individual adjusts their equity portfolio on specific religious days, allowing us to isolate religion-driven investments. Using trading sessions held during a major festival promoting long-term prosperity which act as a cue, we find that individuals who associate with beliefs about the festival invest substantially more on these event days. They buy new stocks, hold them longer, and experience persistent increases in equity account size and diversification post-event. Event-driven purchases represent a larger financial commitment for lower-income individuals and smaller accounts, who subsequently benefit from increased equity exposure. Our findings suggest that religious cues can shape individual long-term investments and wealth accumulation.

*Keywords*: Investment behavior, portfolio choice, household finance, retail trading activity, religion.

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# 1 Introduction

Four out of five people worldwide identify with a religious group (Pew Research, 2012, 2022), and a growing body of evidence suggests that religion is associated with economic behaviors and outcomes (see for instance Guiso, Sapienza, and Zingales, 2003; Kumar, Page, and Spalt, 2011; Renneboog and Spaenjers, 2012; Iyer, 2016; Demiroglu, Ozbas, Silva, and Ulu, 2021). Despite this existing evidence, we know little about whether and how religion shapes individuals' portfolio choices. This is a central question, given that portfolio allocation—how individuals invest, diversify, and hold financial assets—plays a key role in long-term wealth accumulation and, by extension, wealth inequality (Bach, Calvet, and Sodini, 2020; Campbell, 2006; Campbell, Ramadorai, and Ranish, 2019; Parker, Schoar, Cole, and Simester, 2022).

Addressing this question poses two key identification challenges: (i) data linking individuals' religious affiliation with their investments, and (ii) identifying which portfolio choices are religion-driven, as opposed to reflecting other factors correlated with religion.[1] In this paper, we overcome both challenges. First, we leverage unique individual-level data from a large brokerage firm, which allow us to infer religion from last names with high accuracy, and link this to detailed portfolio holdings and trading activity in equity markets. Second, we examine how individuals adjust their portfolios on specific religious days with associated beliefs about long-term prosperity, that hold significance for some groups but not others depending on their religion. This within-individual design enables us to hold fixed all time-invariant individual characteristics and isolate religion-driven trades, allowing us to trace their effects on subsequent portfolio outcomes. Thus, our empirical approach provides a clean identification linking religion to individual portfolio allocation.

We uncover a novel role for religion in shaping portfolio choices and long-term investments. To guide our analysis, we introduce a conceptual framework where we embed cue theory into a simple intertemporal portfolio-choice problem (Laibson, 2001). In this framework a religious cue can amplify the marginal utility from equity investing, generating predictions about trading behavior. To study these, we use trading sessions held during a major festival promoting long-term prosperity as cues.

[1] Potential characteristics include, for example, financial literacy and education (Bernheim and Garrett, 2003; Van Rooij et al., 2011; Cole et al., 2014), cognitive ability (Grinblatt et al., 2011), and political ideology (Kaustia and Torstila, 2011; Kaustia et al., 2016; Meeuwis et al., 2022; Ke, 2024).

Consistent with our framework, we find that individuals who associate with beliefs about the festival —participate more actively and invest substantially larger amounts in the stock market on the event days relative to other days. They buy new stocks rather than increasing existing holdings. Moreover, they hold onto event-purchased stocks longer, leading to a persistent increase in both the size of their equity account and portfolio diversification post-event, with these effects concentrated among low-income investors and those with smaller accounts.

Our empirical analysis leverages detailed data from a major national brokerage firm in India, covering all new account openings and clients' stock transactions linked to checking and savings accounts, between 2012 and 2019. The sample includes clients with above average income in the population and the account sizes are comparable to those studied in Campbell et al. (2019). Unlike prior studies that rely primarily on geographic variation in religious group concentrations, our data allow us to infer religious affiliation at the individual level using last names—a strong predictor of religion (Iyer, 2002; Banerjee et al., 2013; D'Acunto et al., 2024). In our data, over 92% of surname and state combinations can be assigned uniquely to one religion making the classification procedure highly accurate. To the best of our knowledge, we are the first to use such an approach to identify the religious affiliation of individual investors and to track their stock market activity and portfolio composition.

To identify religious-cue-driven investments, we exploit a stock market trading session—"Muhurat trading" (hereafter the *event*) held annually during a major religious festival—widely advertised and predominantly attended by retail investors. Specifically, this session is held during Diwali (the *festival*)—known as the "Festival of Lights" and culturally rooted in beliefs about new beginnings and long-term prosperity—, which is celebrated by over a billion people worldwide and in Hindu tradition seen as an auspicious time for financial investments.[2] The recurring and predictable nature of the session, combined with its association with new beginnings and long-term prosperity, provides an ideal setting to isolate trades driven by religious cues and examine implications for individual portfolios.[3]

[2]Diwali is one of the most widely celebrated religious observances globally (Washington Post; NPR). According to Pew Research, seven in ten Asian Americans celebrate Diwali, and the festival is marked by a reception at the White House.

[3]Aggregate trading data from the National Stock Exchange (NSE) suggests that retail investors dominate the session, accounting for approximately 87% of trades, and resulting in a pronounced retail buy-side imbalance in the market, a pattern not observed during secular and/or other religious events. We compare these results to retail buy-sell imbalance in the market around secular and other religious events, including other Hindu-related festivals, public holidays and earnings announcements. Consistently, no comparable imbalance emerges, highlighting the unique influence of the event (see Da et al., 2015; Edmans et al., 2007; Baker and Wurgler, 2007, for events affecting retail investors' participation).

Our within-individual empirical design compares changes in equity investments for individuals likely influenced by the event (the "treated" group, i.e., Hindu investors) with those of individuals from other religions (the "control" group), who are unlikely to be affected by the religious cue. Since the trading session is accessible to all investors regardless of their religious identity, the presence of a control group helps address the possibility that changes in trading activity could be driven by factors unrelated to religion, such as liquidity effects arising from the market being open on a holiday. To further account for unobserved, time-varying local factors, we incorporate high-dimensional geography $\times$ date fixed effects. The combination of a control group, as well as individual and high-dimensional fixed effects, allows us to cleanly isolate religious-cue-driven trades and their impact on individual portfolios.

In the first part of the paper, we examine trading patterns on the event day, focusing on how investors' trading decisions on this day compare to other days. We find that treated individuals are significantly more active in the stock market on the event day compared to individuals from other religious groups. Specifically, treated individuals are approximately 1.2 percentage points more likely to trade on the event day—a 15% increase relative to the sample mean—compared to other days and relative to control individuals from the same region. Additionally, they trade significantly larger amounts, with transaction amounts increasing by 17% on the event day.

In subsequent analysis, we find that the treated individuals are more likely to buy rather than sell, with a 20% increase in the likelihood of purchasing stocks and no significant change in selling likelihood. In terms of transaction amounts, treated investors spend 17% more on buy trades on the event day, while the amount spent on selling remains unchanged. Importantly, these effects are even larger when restricting the sample to days when individuals trade. In other words, treated investors buy substantially larger amounts on the event day compared to their own buying activity on other trading days, relative to control individuals. This finding further suggests that event-day trades are not merely symbolic or "token" transactions involving negligible amounts for the individual investors in our sample.

We rule out wealth effects as a potential explanation for the findings.[4] Treated investors may experience a temporary rise in disposable income around the festival, driven by cultural traditions

[4]See, for instance, Briggs et al. (2021); Andersen and Nielsen (2011) on the effect of wealth on stock market participation.

such as gift-giving and bonuses, which could influence equity investments. To assess this possibility, we analyze data from individuals' checking and savings accounts and find no significant changes in gross or net wealth around the event.[5]

In the second part of the paper, we then present several tests that validate the interpretation of the observed trading patterns as responses to the religious cue associated with the event. First, we show that treated individuals are *less* likely to trade—buy and sell—on other major religious days that lack association with long-term prosperity, while control group investors exhibit no changes in trading activity around their respective religious events. Second, we examine whether trading patterns align with the festival's emphasis on new beginnings and long-term prosperity. Specifically, we find that the increased buying activity is concentrated in new stocks rather than increasing positions in existing holdings. Treated individuals are 0.8 percentage points—30% relative to the sample mean—more likely to exclusively purchase new stocks that were not previously in their portfolios on the event day, while their likelihood of simply purchasing additional shares of their existing holdings remains unchanged. This pattern suggests that treated investors actively reshape their portfolios by initiating new purchases.

Further, we analyze the characteristics of stocks purchased by treated investors on event days relative to other days, and find that their stock selection does not reflect speculative or gambling behavior. Instead, on event days, treated individuals are *more* likely to buy stocks of well-established firms characterized by high market capitalization, firm age, and past-year performance, while there is no change in their tendency to buy stocks with lottery-like features such as skewness. Notably, treated individuals are *less* likely to buy stocks with high volatility and in addition, if anything, they are more likely to buy higher-share price stocks, as opposed to lower-share price "penny" stocks.

An intuitive implication of the festival's emphasis on long-term prosperity is that treated investors should hold onto stocks purchased on the event day for an extended period, rather than selling them shortly after. Therefore, we examine the likelihood of liquidation and the holding duration of event-purchased stocks. We estimate regression models of selling likelihood on a dummy variable indicating

[5]Additionally, while we observe a slight increase in ATM withdrawals (outflows) prior to the event, there are no meaningful differences in credit card transactions, suggesting that changes in liquidity are unlikely to be driving our results. However, a key limitation of this analysis is that we do not observe off-account physical cash and gold holdings, which are also commonly exchanged during the festival.

whether a stock was purchased on the event day, incorporating individual $\times$ day and stock $\times$ date fixed effects. Our analysis also controls for key determinants of selling behavior, in particular whether the stock is trading at a paper gain relative to its purchase price (see for instance Odean, 1998a; Ben-David and Hirshleifer, 2012).

We find that treated investors are significantly less likely to sell stocks purchased on the event day. On any given day, they are 10% less likely to sell an event-purchased stock, after accounting for time-varying individual and stock characteristics. When restricting the analysis to days when individuals sell at least one stock, treated investors are 30% less likely to sell an event-purchased stock, reinforcing the notion of longer holding horizons. Moreover, treated investors do not exhibit a stronger disposition effect for stocks purchased on the event, suggesting that, if anything, they are less prone to selling event-purchased stocks that are trading at a paper gain. Overall, these results point to a distinct shift in trading behavior on the event day reinforcing the interpretation that the trades are indeed driven by the religious cue.[6]

In the last part of the paper, we assess whether trading on the event day leads to persistent changes in the portfolios of treated individuals. Specifically, we investigate whether those who actively participate by purchasing stocks on the event day experience lasting effects on their equity account size, portfolio diversification, and volatility, compared to non-participants. To capture these dynamics, we construct stacked event windows around each event, tracking portfolio evolution over three months before and three months after each event.

Our results show that, post-event, treated individuals who purchase stocks on the event day experience a 20% increase in the size of their equity account (i.e., increased participation in the equity market), a 10% expansion in the number of stocks held, and a significant decline in portfolio concentration, as measured by the portfolio Hirschman Herfindahl Index (HHI), relative to other treated individuals who do not participate. Importantly, these effects persist beyond the event, with no evi-

[6]We acknowledge that it is inherently difficult to disentangle religion from culture, as religious beliefs are often deeply embedded in local traditions, norms, and social structures (Becker, 1996; Campante and Yanagizawa-Drott, 2015b). Anthropological and sociological research also emphasizes that religious worldviews are shaped within broader cultural contexts, making the separation of religious belief from culture challenging (Ver Beek, 2000; Fuller, 2004). This fusion is particularly evident in economic domains, where festivals and religious events are accompanied by significant financial behaviors—such as spending, gifting, and investing—that are as much cultural obligations as religious acts (Montero and Yang, 2022). As such, while our findings highlight a clear role for religion in shaping portfolio choices, they also underscore that these effects likely operate through a cultural-religious nexus, rather than through religion alone.

dence of reversal in the months that follow, indicating that event-induced trading has lasting effects. Additionally, we observe a gradual post-event decline in portfolio volatility, reinforcing the idea that these investment choices affect portfolio composition and outcomes. Taken together, our findings suggest that the religious cue has lasting effects on individual portfolios well beyond the event itself.

Finally, a growing literature documents substantial heterogeneity in investment returns across individual investors, with important implications for wealth inequality. Campbell et al. (2019), using Indian stock portfolio data, attribute rising return inequality to differences in diversification: larger accounts hold more diversified portfolios and earn higher risk-adjusted returns, while smaller accounts remain concentrated in a few stocks. Building on this insight, we examine whether event-driven stock purchases differ systematically by investor income and wealth. We find that event-driven purchases represent a significantly larger financial commitment for lower-income and smaller account size investors. These investors allocate a higher share of both income and account value to such purchases and end up with a greater portfolio share in event-purchased stocks—with these purchases contributing on average (median) to 25% (10%) increase in account size over the sample period. Taken together, our findings suggest that religious cues serve as a channel through which smaller investors engage in stock markets, increase their equity exposures, and improve diversification, potentially mitigating return inequality for those otherwise most exposed to undiversified risk (Badarinza et al., 2019; Gomes et al., 2021).

Our results have broader implications for financial inclusion and faith-based investing. They highlight that religious cue can act as an economic force with important implications for portfolio choices and wealth accumulation. As financial institutions and policymakers seek to engage individual investors, religious cues—such as that embedded in Sharia-compliant funds, Catholic investment guidelines (e.g., the Vatican's 2023 *Mensuram Bonam*), and other faith-based financial products—could be leveraged to promote long-term investment and responsible financial decision-making.

**Related Literature.** Our first contribution lies in isolating the impact of religion—separate from other correlated characteristics—on individual portfolio choices and outcomes. Prior research shows that the local religious environment is correlated with the trading behavior of both retail and institutional investors (e.g., Kumar, 2009; Shu et al., 2012), corporate decision-making (e.g., Hilary and

Hui, 2009; Schneider and Spalt, 2016; Jiang et al., 2018), and aggregate stock market outcomes (e.g., Kumar et al., 2011).[7] However, few studies directly link an individual's religion to their actual investment behavior and portfolio composition. Hong et al. (2004) shows that individuals who frequently attend religious services are more likely to invest in the stock market but attribute this result to social interactions.[8] At the household level, Renneboog and Spaenjers (2012) find that religiosity is correlated with stock market participation, while Bazley et al. (2025) show that it reduces the likelihood of financial hardship. Bender et al. (2022), using a survey of U.S. individuals with at least $1 million in assets, report that religion plays an important role in respondents' equity allocation decisions. Yet, no existing study isolates religion-driven portfolio choices and quantifies their consequences for long-term outcomes. To the best of our knowledge, our study is the first to establish a clean link between religion and portfolio choices with long-term implications.

Our paper also contributes to the literature examining how religion affects financial decision-making in a broader context, by identifying a novel mechanism of religious cue distinct from prior work. Fisman et al. (2020) show that exposure to religion-based communal violence leads to lending decisions that are more sensitive to a borrower's religion. Fisman et al. (2017) find that religious proximity between lenders and borrowers increases credit access and reduces default rates, likely by mitigating information frictions. Relatedly, D'Acunto et al. (2024) demonstrate that religion can induce cultural biases—potentially driven by discrimination—in peer-to-peer lending, which can be mitigated through algorithmic robo-advising. Demiroglu et al. (2021) find that loans originated during Ramadan—a significant period in the Muslim faith—are more likely to default, and attribute this to the adverse physiological effects of fasting, rather than a messaging-driven behavioral shift. Our paper complements this work by leveraging a unique experiment—Muhurat trading on Diwali in India—to isolate the impact of exposure to religious event cue on individual portfolio decisions and long-term

[7] Prior research has primarily focused on the Abrahamic faiths. On Christianity, see Barro and McCleary (2003), Benjamin et al. (2016), Caicedo (2019), Espín-Sánchez et al. (2023); on Judaism, see Pascali (2016), Johnson and Koyama (2017), Jha and Shayo (2019); on Islam, see Campante and Yanagizawa-Drott (2015a), Bazzi et al. (2020), Demiroglu et al. (2021), Mehmood et al. (2023); and on Confucianism, see Kung and Ma (2014) and Chen et al. (2022). A nascent literature has recently begun to examine the economic implications of traditional African religions and ethnicity (Le Rossignol et al., 2022; Butinda et al., 2023; Hjort, 2021).

[8] On the role of social factors as determinants of investor behavior in financial markets , see Hirshleifer (2020). Studies examining how social interactions and peer effects influence household financial decisions include Ivković and Weisbenner (2007); Brown et al. (2008); Kaustia and Knüpfer (2012); Cannon et al. (2024); Gelman et al. (2024); Müller et al. (2024).

investments.[9]

Finally, our findings also broadly connect to the literature on individual trading behavior and performance (see Barber and Odean, 2000, 2008; Grinblatt and Keloharju, 2000; Kaniel et al., 2008; Odean, 1998a; Seru et al., 2010; Meyer and Pagel, 2022; Cookson et al., 2023).[10] One strand of this extensive literature identifies behavioral biases that shape retail investor activity (e.g., Daniel et al., 1998; Odean, 1998b; Ben-David et al., 2013; Da et al., 2021; Shefrin and Statman, 2000; Barberis and Huang, 2008). Particularly relevant to our setting, Anagol et al. (2021), Balasubramaniam et al. (2023), and Fisman et al. (2023) examine individual investor behavior in India, providing a contextual foundation for our study. Our contribution is to highlight a novel role for religion in fostering non-speculative behavior.

## 2 Institutional Details

In this section, we discuss the background of the religious festival and institutional details of the associated trading session we exploit in our empirical analysis.

### 2.1 Religions in India

India is known for its significant religious diversity. According to the Population Census of 2011, approximately 79.8% of Indians identify as Hindu, making it the most prominent religious group in the country. Islam is the second-largest religion, with around 14.2% of the population, followed by Christianity at 2.3% and Sikhism at 1.7%. Other religious groups, including Buddhism, Jainism, and smaller indigenous faiths, together make up roughly 2% of the population.

Religion is also an important part of daily life in India. In Online Appendix Table IAA1, we examine their importance using the World Value Survey. According to Wave 7 of this survey, conducted between 2017 and 2022, 64% of individuals reported that religion is a "very important" part of their lives,

[9] Prior work also shows that religiosity influences economic choices, including debt repayment, public goods contributions, and risk aversion (Iyer, 2002, 2016, 2018; Benjamin et al., 2016; Bursztyn et al., 2019; Fruehwirth et al., 2019; Sinding Bentzen, 2019).

[10] A related literature in household finance examines stock market participation more broadly (Haliassos and Bertaut, 1995; Campbell, 2006; Guiso and Sodini, 2012; Ke, 2018, 2024; Gomes et al., 2021).

while over 62% attend religious services at least once a month, highlighting the collective importance of religious engagement.

## 2.2 Cultural Significance of Diwali

Religious festivals are prominent features of social life in India, with Diwali being one of the largest and most significant religious observances among Hindus. Diwali marks the beginning of the New Year for many communities in India. Also known as the "Festival of Lights," it symbolizes the triumph of light over darkness and good over evil. Observed by millions of individuals across India, Diwali typically spans five days with families celebrating by illuminating homes with oil lamps, exchanging sweets, and setting off fireworks. The festival carries themes of long-term prosperity and spiritual renewal.[11] Diwali traditions focus on invoking blessings for wealth and fortune, making it a significant event linked to optimism and aspirations for prosperity in the year ahead.

## 2.3 Muhurat Trading

**Tradition.** Since 1957, Indian stock exchanges have been organizing a special trading session known as "Muhurat Trading" to mark an auspicious start to the new financial year.[12] Muhurat trading takes place on the third day of Diwali, considered the most auspicious of the five days of the festival.[13] This session, rooted in cultural and religious beliefs, is open to all investors, allowing them to participate in financial markets on a day that symbolizes prosperity and long-term economic well being.

Muhurat trading is widely advertised by stock exchanges, individual banks, and brokers in India. Alongside providing information on the date and timing of the trading session, the vast majority of advertising heavily features imagery highlighting the auspicious nature of the day.[14] Following Da et al. (2011), we use Google Search Volume Index (SVI) data as a proxy for retail investor attention

[11] Specifically, it commemorates the return of Lord Rama to his kingdom after exile, as described in Hindu epic lore.

[12] The term "Muhurat" signifies an opportune moment to start new projects or make financial decisions, and this special trading session for equities, marks the beginning of the traditional Hindu accounting year known as Samvat.

[13] The dates of Hindu festivals, including Diwali, are determined by the lunar calendar and therefore vary from year to year. Table IAD1 in the Internet Appendix lists the dates and timings of trading sessions at the National Stock Exchange.

[14] See Section B of the Online Appendix for more details on the advertising of Muhurat trading and examples of marketing content by the NSE and brokers for the trading session, as well as examples of newspaper articles referencing and advertising the event.

and plot the online search interest for the term "Muhurat Trading" in India from 2012 to 2019 in Figure IAB4. The data show a pronounced peak in search interest each year precisely during the month of Diwali, indicating that retail interest in Muhurat trading sharply intensifies only around this time.

**Implementation details.** Muhurat trading follows a specific structure on Diwali. The main event is the normal market session, lasting one hour, where continuous trading occurs, allowing investors to buy and sell stocks just like during regular market hours. Before the market opens to retail investors, a 15-minute block deal session takes place where large, pre-arranged trades are executed between two parties at negotiated prices. This is followed by a 15-minute pre-open session, during which traders enter orders without executing trades, helping to establish market opening prices. After the main event, there is a call auction session of 5 to 10 minutes, focused on trading illiquid securities, with prices determined by overall demand and supply. The day concludes with a 15-minute closing session, during which no new orders are accepted, but traders can square off existing positions at the closing price. Internet Appendix Table IAD1 lists the dates the Muhurat trading sessions occurred in our sample covering 2012 to 2019.

**Aggregate retail activity.** We analyze the universe of stock trading data from the National Stock Exchange (NSE) to study aggregate retail trading activity on the event day.[15] This dataset covers the entire universe of trading records from the NSE over the period from 2012 to 2019. It provides detailed information for each transaction, including the client type such as retail, institutional, overseas corporate bodies, statutory bodies, and unknown. We collapse transactions to get a dataset of the total quantity and amount of shares bought and sold of each stock on each day by each client type. Online Appendix Table IAD2 presents summary statistics in the NSE dataset aggregated at the stock-date level for retail investor trades.

We then analyze the share of retail trades as well as the retail buy-side (vs. sell-side) order imbalance at the stock level on event days compared to other significant dates. Specifically, we compare average retail trading activity at the stock level during the five days preceding and following: (i)

[15]NSE is the fifth largest stock exchange in the world by total market capitalization, exceeding $5 trillion, as of May 2024.

Diwali's Muhurat trading, (ii) other national Hindu religious events (excluding Diwali), (iii) non-Hindu religious events, (iv) national holidays, and (v) stock announcement dates. Online Appendix Table IAB1 provides a list of these religious events along with their cultural significance.

Figure 1 presents the results. Panel A plots the average retail buy-side imbalance, calculated following Barber et al. (2008) as $\frac{(buy-sell)}{buy+sell}$ for the universe of retail trades on the NSE, where *buy* and *sell* represent the number of buy and sell trades, respectively. Panel B displays the share of trades accounted by retail investors. Panel A of Figure 1 reveals a significant retail buy-side imbalance on the event day, with no observable pre-trend or post-trend in the days preceding and following the event. In contrast, Figure IAD1 in the Online Appendix shows no comparable spike in retail trading activity around other Hindu religious events, non-Hindu religious events, national holidays, or informative days such as stock announcement dates.

## 3 Conceptual Framework

To guide our empirical analysis, we embed cue theory into a simple intertemporal portfolio-choice model. Cue theory posits that environmental cues elicit temporary changes in preferences and behaviors, hence making cues and consumption complements by raising the marginal utility of consumption (Laibson, 2001; Pennesi, 2021; Apesteguia et al., 2023). Our conceptual framework highlights how an environmental cue—here, a religiously framed trading session that ties beliefs about participation in financial markets to new beginnings and long-term prosperity—can amplify the marginal utility from equity investing with implications for portfolio choices and wealth accumulation. In essence, the Muhurat session serves as a highly salient, attention-grabbing event that draws investors into the market (Barber and Odean, 2008). Even in the absence of new fundamental information, the auspicious framing and publicity surrounding the event focus investors' attention on equity investing, triggering trades that would not occur on a routine day absent the message and the cue.

### 3.1 Baseline Portfolio-Choice Model

Consider an investor $i$ who, in each period $t$, chooses consumption $c_t$ and a portfolio adjustment $\Delta h_t$ of a broadly diversified equity holding $h_t$. Wealth evolves according to:

$$W_{t+1} = (1+r)\big(W_t - c_t - \Delta h_t\big) + h_t \pi_t, \tag{1}$$

where $r$ is the risk-free rate, $\pi_t$ is the stochastic per-unit return (including dividends), and $\Delta h_t = h_t - h_{t-1}$ captures net purchases. The investor maximizes expected lifetime utility (until time $T$):

$$\max_{c_t, \Delta h_t} \ \mathbb{E}\left[\sum_{t=0}^{T} \beta^t u(c_t, h_t)\right], \tag{2}$$

subject to the budget constraint (1) and a discount factor $\beta$. Under usual assumptions (e.g., CRRA over consumption and wealth), this model predicts smooth adjustments in holdings—absent shocks—since each trade incurs fixed costs or adjustment frictions (see Campbell, 2006, and below).

### 3.2 Introducing the Cue

We model the Muhurat trading session as a *cue*—a predictable environmental signal that temporarily raises the perceived marginal utility of investing in equities.[16] Let $\mathcal{D}$ denote the discrete set of dates corresponding to the event. We modify per-period utility to include a cue-driven term on those dates as

$$U_{i,t}(c_t, h_t) = u(c_t, h_t) + \mathbf{1}_{t \in \mathcal{D}} \cdot \delta_i \cdot v(\Delta h_t). \tag{3}$$

Here, $\delta_i > 0$ measures investor $i$'s sensitivity to the cue, and $v(\Delta h_t)$ is an increasing function capturing the immediate utility gain from trading (Bernheim and Rangel, 2004; Loewenstein, 1996). On non-event dates the cue term vanishes, reducing the model to the standard intertemporal choice problem; on event-day, the cue acts like a temporary utility subsidy to expanding equity positions. Importantly, $\delta_i > 0$ only for investors who recognize the event as an auspicious time for wealth (e.g. those of the

[16] Note that much of literature discusses cues in the context of temptation goods. However, one does not need "lottery-type" payoffs to treat a good as a temptation. Even safe, low-volatility stocks can function as temptation goods when a cue temporarily boosts their perceived value, raising short-run utility (Gul and Pesendorfer, 2001; Bernheim and Rangel, 2004).

relevant belief); for others, $\delta_i$ is effectively zero. Thus, only the "treated" investors experience the utility boost on event days, consistent with our empirical design comparing religiously affected vs. unaffected individuals.

**Event-Specific Trading Frictions.** We assume the trading-cost function to depend both on the sign and size of the trade. Specifically, we decompose the net portfolio change as

$$\Delta h_t \;=\; \Delta h_t^{+} - \Delta h_t^{-},$$

where $\Delta h_t^{+} = \max\{\Delta h_t, 0\}$ and $\Delta h_t^{-} = \max\{-\Delta h_t, 0\}$.

The cost function is given by

$$C\big(\Delta h_t\big) \;=\; C^{+}\big(\Delta h_t^{+}\big) \;+\; C^{-}\big(\Delta h_t^{-}\big)\,, \tag{4}$$

where: $C^{+}(\cdot)$ and $C^{-}(\cdot)$ are convex and differentiable functions for purchases and sales, respectively.

**Investor's Objective Function.** The objective then becomes

$$\max_{\{c_t,h_t\}} \sum_{t=0}^{T} \beta^t \Big[u(c_t,h_t) + \mathbf{1}_{t\in\mathcal{D}} \cdot \delta_i \cdot v(\Delta h_t)\Big] \;-\; \sum_{t=1}^{T} \beta^t\, C\big(\Delta h_t\big),$$

subject to the usual budget constraint. Under this specification, on the event date ($t \in \mathcal{D}$), the term $\delta_i\, v(\Delta h_t)$ can outweigh $C^{+}(\Delta h_t^{+})$, inducing new purchases. After the event date, reversing those positions ($\Delta h_t^{-} > 0$) incurs the sale cost $C^{-}(\Delta h_t^{-})$, generating post-event inertia.[17]

[17] We do not take a stance on the specific nature of the cost. For example, event purchases could carry extra psychological value—anchored in the festival's auspicious framing—so giving them up feels especially regretful and could generate "realization disutility," which investors dislike (Loomes and Sugden, 1982; Barberis and Xiong, 2012). It could also be that investors mentally segregate event-purchases shares into a special "Diwali" account. Closing that account feels like "wasting" a cultural ritual, and raises the perceived cost of rebalancing these holdings (Thaler, 1999). At the same time, participating in Muhurat trading session could be a public/social ritual, and hence selling the event-purchased stocks may feel like reneging on a communal norm, imposing a reputational or identity cost (Akerlof and Kranton, 2000).

### 3.3 Implications for Trading Behavior.

#### 3.3.1 Main Predictions.

1. **Trading Activity.** On dates $t \in \mathcal{D}$, the first-order condition equating marginal utility of consumption and investment shifts. The investor's first-order condition (FOC) for $\Delta h_t > 0$ is

$$u_h(c_t, h_t) + \mathbf{1}_{t\in\mathcal{D}} \cdot \delta_i \cdot v'(\Delta h_t) = \lambda_t (1 + r) + C'(\Delta h_t),$$

   where $\lambda_t$ is the marginal utility of wealth. On cue-dates $t \in \mathcal{D}$, the extra $\delta_i \cdot v'(\Delta h_t)$ term raises the marginal benefit of buying, inducing a one-off spike in both the probability of buying and the average trade size (Benartzi and Thaler, 1999). Although the timing of $t \in \mathcal{D}$ is public knowledge, it is important to note that the preference shock is transient—investors derive the extra utility only by trading on the event day.

2. **Persistence in Holdings.** Once established, holdings are adjusted infrequently due to adjustment costs. Once event-purchased holdings are in place, selling them incurs a sale cost $C^-(\Delta h_t^-)$, so it is optimal to leave equity holdings unchanged rather than pay the adjustment costs.

#### 3.3.2 Additional Predictions.

Beyond the main predictions, our stylized model can generate additional predictions about the heterogeneity in the trading response depending on intensity of the religious cue.

3. **Placebo.** First, we exploit non-event religious days as a validation of the cue-specificity built into our model and allow the utility function to respond to multiple potential cues indexed by $k$. Specifically,

$$U_{i,t}(c_t, h_t) = u(c_t, h_t) + \sum_k \mathbf{1}_{t\in\mathcal{D}} \cdot \delta_i^{(k)} \cdot v\big(\Delta h_t\big),$$

   where each $\mathcal{D}_k$ is the date of a different event, and $\delta_i^{(k)}$ measures how potent that cue is for investor $i$. We posit that only events tied to specific beliefs about new beginnings and long-term

prosperity will have

$$\delta_i^{(\text{Event})} > 0,$$

while for all other events— religious festivals, national holidays, public announcements etc.

$$\delta_i^{(k \neq \text{Event})} \approx 0.$$

Empirically, this generates the following prediction: treated investors spike in trading only when $\mathbf{1}\{t \in \mathcal{D}_{\text{Event}}\} = 1$. If we observe a zero-effect on non-prosperity cues, this will rule out broader "holiday" or "religiosity" explanations and confirm that it is the religiously-framed cue—captured by $\delta_i^{(\text{Event})}$—that is driving the transient increase in marginal utility and thus the observed trading patterns.

4. **Religion-driven Trades**. Second, we exploit heterogeneity in the intensity of the religious cue across stocks. If $\delta_i^{(\text{Event})}$ varies across stocks, then we expect the trading activity on the event-days to be concentrated on the stocks that align with festival's emphasis on new beginnings and long-term prosperity. In particular, the cue is likely larger for new stocks rather than existing holdings in the portfolio, in line with the emphasis on new beginnings.

# 4 Data and Summary Statistics

Our main empirical analysis leverages a unique proprietary dataset from a leading national brokerage firm in India, containing individual account-level trading records. Below, we provide details on the dataset.

## 4.1 Brokerage Data

Our main dataset comes from a leading national brokerage firm in India, providing granular account-level information that allows us to examine retail investor trading in detail. This brokerage firm operates through more than 7,000 branches in all Indian states, giving our analysis a broad view of trading patterns in the country.

**Data Overview.** The main dataset is a trade file, which contains detailed transaction information, including a tax identifier unique to each account, the last name and address of the account holder, the account opening date, the transaction date, the security name, and the total transaction value. Our sample covers trades from January 2012 through December 2019. Since we observe each account's opening date, we focus on accounts opened from January 2012 onward, allowing us to track the full evolution of each portfolio based on the trade data. In addition, we restrict the sample to trading accounts for which we also observe the linked checking and savings accounts, totaling 24,112 investors. This enables us to link individual trading activity from the brokerage account to the individual's savings and checking account, ATM transactions, and credit card transactions within the same bank. Further, in the data we observe additional attributes of the underlying investors such as gender, age at account opening, as well as a classification of their income ranges.

Like others before us using Indian data, we focus on direct stockholdings (Campbell et al., 2014, 2019; Balasubramaniam et al., 2023).[18] For our analysis, we focus on transactions involving common stocks included in the Prowess Database, which is maintained by the Centre for Monitoring Indian Economy (CMIE) and is comparable to the CRSP database in the U.S.[19] We extract data from the latest vintage of Prowess, which is free from survivorship bias, as highlighted by Siegel and Choudhury (2012). We manually match stock name strings in the broker dataset to those in the Prowess dataset to extract stock identifiers and merge with stock prices and characteristics. This process allowed us to link over 85% of the observations from the brokerage data with the characteristics of the stocks in Prowess, covering more than 88% of the volume of transactions within our dataset.[20]

**Construction of Holding Sample.** We build a holding sample by following the methodology of Ben-David and Hirshleifer (2012). Specifically, we use the transaction dataset to construct a holding sample at the investor-stock-date level, where each observation represents an individual investor's holding of a particular stock on a given day. Investor-days on which an investor does not trade are included, allowing us to capture both trading and passive holding periods to accurately track portfolio

[18] Campbell et al. (2014) and Campbell et al. (2019) emphasize the very limited share held by mutual funds in India.

[19] Several prior studies on Indian firms have used this dataset, including Bertrand et al. (2002); Gopalan et al. (2007); Lilienfeld-Toal et al. (2012); Gopalan et al. (2016); Naaraayanan and Nielsen (2021); and Naaraayanan and Wolfenzon (2023).

[20] The match rate is effectively unchanged at 85% when we consider name changes of stocks.

composition over time. Purchases and sales are aggregated on a daily basis for each investor-stock combination. For instance, if an investor purchased a given stock on January 5, 2015, and held it until January 26, 2015, there would be 15 observations (15 business days) for that investor-stock holding duration. In some analyses, we also aggregate this holding sample at the investor-date level to examine individual behaviors and portfolio-level characteristics.

**Inferring Investors' Religion.** A unique feature of our brokerage dataset is its inclusion of the account holder's last name, which we use to infer the individual's religion, similar to D'Acunto et al. (2024) and Bhagavatula et al. (2019). Specifically, we create a mapping of last names from our broker dataset into distinct religious groups by leveraging the fact that last names in India are strong indicators of religion, and that marriages in India, are overwhelmingly intra-religious. We utilize data from a major matrimonial website, which provides the first and last names of nearly six million users. This registry dataset includes self-reported demographic information about religion and caste elicited at marriage and includes names and surnames, date of marriage, state of birth, city of residence, height (in centimeters), religion, and caste.

Given that the relationship between last name and religion is not always one-to-one, we employ these data to assign probabilities indicating the likelihood that a particular last name corresponds to each religion within a specific state. The method yields a high degree of precision: on average, each unique state–surname combination is associated with only 1.09 religions, and in over 92% of cases, the assignment is made with 100% certainty. In addition, the uniqueness probability *across* religions is also similar, over 97% for all, so the risk of systematically matching some religions better or worse than others is low. This reflects the strong within-group concentration of religion in naming patterns. We provide details on the methodology, its accuracy and the religion split in our sample in Online Appendix A.

We match approximately 97% of individuals in our broker dataset to a religion, and focus our analysis on the five main religious groups: Hindu, Jain, Muslim, Sikh, and Christian. Individuals we are unable to match are excluded from the final analysis. To the best of our knowledge, we are the first to be able to link the religion of individuals to their stock market transactions.

### 4.2 Summary Statistics

Table 1 provides summary statistics for our brokerage dataset. Panel A details account-level demographics at the time of opening the account, indicating an average age of 43 years, with 73% of account holders being male and 90% being treated individuals. The median annual income is ₹300,000—where the values correspond to the midpoint of the income ranges provided by the brokerage firm. According to Bharti, Chancel, Piketty, and Somanchi (2024), the median (real) income observed in our sample is above the population average, with most of our sample lying between the $50^{th}$ and $90^{th}$ percentiles, and the largest belonging to the top 10% of the income distribution.

Panels B and C present statistics at the account-date level, where Panel B covers the entire sample and Panel C focuses on trading days only. Panel B shows that the average total portfolio value (size of the equity account) is around ₹1,070,000 (approximately $17,000) while the median is ₹185,000 ($3,000).[21] Panel B shows that 8% of account-day observations correspond to trading days, with 6% for buy and 3% for sell transactions. The trade-conditioned sample (Panel C) shows a larger likelihood of buying (76%) compared to selling (36%) on active trading days, and an average buy amount (₹123,000, i.e., approximately $1,900) larger than the average sell amount (₹85,000, i.e., approximately $1,300).

Panels D and E provide account-stock-date level statistics for treated individuals, with Panel D showing unconditional statistics (entire sample) and Panel E focusing on sale-conditioned days (days with at least one sale in the individual portfolio). Panel D reveals that the frequency of trades at the account-stock-date level is 3% and that the average stock holding observation corresponds to 147 days. The sale-conditioned sample (Panel E) shows that individuals trade 15% of their holdings on these days.

## 5 Trading around the Event

We examine changes in the trading activity among treated and control individuals around the event, to test whether individuals change their investment behaviors when faced with the religious cue. To do so, we estimate panel regressions at the individual-date level including both trading and non-trading

[21] Over our sample window from 2012 to 2019, the average exchange rate is ₹64 to 1 USD.

observations. Our regression specification is as follows:

$$Y_{i,t} = \beta \cdot Event_t \times Treated_i + \gamma_i + \delta_t + \epsilon_{i,t}, \tag{5}$$

where the observations are at the account ($i$) and date ($t$) levels. The variable $Event_t$ is a dummy equal to 1 if date $t$ corresponds to the event day, and $Treated_i$ is a dummy indicating whether individual $i$ is inferred to be Hindu. $\gamma_i$ and $\delta_t$ are individual and date fixed effects respectively. Standard errors are double-clustered at the individual and date levels.

The dependent variable $Y_{i,t}$ is either a dummy variable indicating whether the individual trades, buys or sells on date $t$, or a continuous variable defined as the inverse hyperbolic sine (arcsinh) of the amount spent on trading, buying or selling on date $t$. We use the arcsinh transform to account for zeros, i.e., days when individuals do not trade.

To study the dynamics of trading behaviors around the event day, we estimate the following event-study specification:

$$Y_{i,t} = \sum_{k=-5}^{5} \beta_k \cdot \{Day(k)_t \times Treated_i\} + \alpha_i + \delta_t + \epsilon_{i,t}, \tag{6}$$

where $Day(k)_t$ are dummy variables equal to one if date $t$ correspond to $k$ days before/after the event day (with $k \in \{-5, -4, ..., 0, ..., 4, 5\}$). Standard errors are double-clustered at the individual and date levels. The coefficients $\beta_k$ in Equation (6) capture the differential effect for treated individuals on the outcome variable $Y_{i,t}$ on day $k$ before/after the event relative to the baseline period outside the [-5, +5] window, compared to control individuals.

## 5.1 Trading

**Likelihood to trade.** Panel A of Table 2 presents estimation results of regression Equation (5), when the dependent variable is a variable equal to 100 if the individual trades on that date, and 0 otherwise. Column (1) includes only religion fixed effects. Column (2) and remaining columns include individual fixed effects. Column (3) further include date fixed effects. In Columns (4) and (5), we include state $\times$ date fixed effects and district $\times$ date respectively, where state and district refers to the individual's

registered address in India.[22]

The coefficient on $Event\ Day$, which can be estimated in specifications without date fixed effects (Columns (1) to (2)) is statistically insignificant, suggesting no change in trading likelihood for control individuals on the event compared to other days. However, the coefficient on the interaction term $Event\ Day \times Treated$ is positive and statistically significant across all specifications, indicating that treated individuals are significantly more likely to trade on event days compared to other dates, relative to control individuals.[23] The coefficient ranges from 1.1 to 1.28. In the most stringent specification, i.e., Column (5), we find that treated investors are 1.21 percentage point (p.p.) more likely to trade on event days— 15% relative to the dependent variable's sample mean.[24]

**Amount traded.** Panel B of Table 2 presents the estimation results of regression Equation (5), when the dependent variable is the inverse hyperbolic sine (arcsinh) of the amount traded. The results are consistent with the previous findings on trading likelihood. The coefficient on $Event\ Day$ is insignificant (Columns (1) and (2)), while the coefficient on the interaction term $Event\ Day \times Treated$ is positive and statistically significant across all specifications. The coefficients ranges from 0.15 to 0.16, with the most stringent specification (Column (5)) indicating that treated individuals trade about 17% larger amounts on event days. Taken together, these results suggest that the event fosters increased trading activity among treated individuals.

Panel A of Figure 2 presents the estimated coefficients ($\beta_k$) and their corresponding 95% confidence intervals from Equation (6) where the dependent variable is the arcsinh of the amount traded, showing the dynamics of changes in traded amount around the event. We do not observe differences in the evolution of traded amounts between treated and control in the days leading up to the event (Day -5 to Day -1). Strikingly, on the event day we observe a clear spike in the amount traded for treated individuals relative to controls, while post-event (Day +1 to Day +5), the evolution of traded amounts

[22] A district, also known as revenue district, is an administrative division of an Indian state or territory. It is based on a PIN code, or Postal Index Number, which is a six-digit code used by India Post to uniquely identify and facilitate the sorting of mail in different geographic regions.

[23] In Appendix Section C, we show that treated individuals are more likely to open a brokerage account around the festival and tend to opening an account with the intention of trading on the festival for the first time.

[24] We also investigate the characteristics of treated individuals who trade on the event day in Internet Appendix Table IAD3. Investor characteristics such as gender, age and income are uncorrelated with the likelihood to trade on the event among treated individuals, and whether they buy or sell.

does not exhibit any difference between treated and control. These patterns provide confidence that the differential increase in trading activity among treated individuals is driven by the event's religious cue, especially given that all event days are known in advance and participation in the trading session is open to all investors, regardless of religion.

## 5.2 Buying and Selling

**Likelihood to buy and sell.** Panel A of Table 3 presents the estimation results of regression Equation (5), where the dependent variable is equal to 100 if the individual buys (Columns (1)-(3)) or sells (Columns (4)-(6)) on that day, and 0 otherwise. All columns include individual fixed effects. Columns (1) and (3) include date fixed effects, Columns (2) and (5) further include state $\times$ date fixed effects, and Columns (3) and (6) include district $\times$ date fixed effects.

The coefficient on $Event\ Day \times Treated$ is positive and statistically significant in Columns (1), (2) and (3), indicating that treated individuals are significantly more likely to buy stocks on event days compared to control individuals. The coefficient ranges from 1.18 to 1.29, suggesting an increase in buying activity of about 20% relative to the sample mean of 6.22. By contrast, the coefficients on $Event\ Day \times Treated$ in the sell specifications (Columns (4), (5) and (6)) are not statistically significant, implying that treated individuals are not more likely to sell stocks on the festival compared to controls. Overall, these results suggest that the baseline effect is concentrated on buying behavior rather than selling.

**Amount spent on buy and sell trades.** Panel B of Table 3 presents the results of regressions where the dependent variable is the arcsinh of the amount spent on buy and sell trades. Consistent with the results in Panel A, the coefficient on $Event\ Day \times Treated$ is positive and statistically significant in the buy specifications (Columns (1), (2) and (3)), indicating that treated individuals spend significantly more on buy trades on the event day relative to other days, compared to control individuals. The coefficients are around 0.16, suggesting an increase of about 17% in the amount spent on buying relative to other days. In contrast, coefficients on $Event\ Day \times Treated$ in the sell specifications (Columns (4), (5) and (6)) are not statistically significant, suggesting no meaningful difference in changes in the amount spent on sell trades.

Importantly, these results hold even when restricting the sample to days on which individuals actively trade. In Online Appendix Table IAD4, we show that when considering only observations with non-zero trading activity, treated individuals spend at least 40% more on buy trades on the event day compared to other days on which they trade, relative to control individuals. In other words, treated investors engage in significantly larger trades on the event than on their other trading days, distinguishing their behavior from that of control individuals. The large magnitude of the trades suggest that buying behavior on the event days are not merely symbolic or "token" transactions involving negligible amounts.

Panel B of Figure 2 presents the estimated coefficients $\beta_k$ in Equation (6), where the dependent variable is the arcsinh of the amount spent on buy trades (green) and sell trades (orange). The coefficient on the interaction term $Event\ Day \times Treated$ is positive and statistically significant for buy trades, indicating a clear spike in buying activity for treated individuals on the event day. In contrast, coefficients for sell trades are not statistically significant, confirming no notable change in selling behavior, consistent with the results in Table 3. As before, we find consistent patterns of a clear spike in buying but not selling on event days with no differential changes pre- and post-event, providing further evidence that these patterns are indeed attributable to religious motives.

### 5.3 Ruling out Wealth Effects

An alternative channel for our results is that treated investors may experience a temporary increase in wealth around the event, which could influence their investment decisions. Specifically, the festival is often associated with gifts and bonuses and perhaps such a change in liquidity and/or disposable income might lead them to be more willing to invest in equities.[25] Additionally, with greater perceived or actual wealth, they may be more inclined to hold onto investments for the long term. We attempt to directly mitigate concerns about wealth effects by leveraging our unique data linked to individual activity within the bank across their savings and checking accounts, and credit cards.

Specifically, we examine changes in daily balance across different accounts for individuals around

[25]Note that such argument(s) apply to religious festivals in general and should result in similar patterns of equity investments around religious events of similar cultural significance, unless the behavior is influenced by the messaging conveyed by the specific event. As we document in Section 6, we do not find evidence of changes in investment decisions around other religious events, thereby making general wealth effects an unlikely explanation for our results.

the events. We estimate Equation (6) using dependent variables from the respective accounts. Online Appendix Figure IAD2 plots the coefficients ($\beta_k$) and their corresponding 95% confidence intervals on each day around the event. In Panel A, the dependent variable is the arcsinh of the individual's checking account balance. We see that prior to the event, the average checking account balances are slightly higher while after the event they become close to zero, with both sets of coefficients statistically indistinguishable from zero. In Panel B, the dependent variable is the arcsinh of the difference between credit and debit amounts, further breaking down the amounts received or transferred (net credit-debit). We again see that there is no change in the amount of cash received or transferred to other accounts.

Next, in Online Appendix Figure IAD3, we examine ATM transactions. In Panel A, the dependent variable is a dummy equal to one if we observe an ATM withdrawal on the individual's account on that day. It shows that the likelihood to withdraw money from ATM jumps by 0.4% the day before the event day for treated individuals. Moreover, in Panel B, where the dependent variable is the arcsinh of the withdrawn amount, we find that the amount withdrawn jumps by less than 5%, which is substantially smaller than the 30% in the amount traded. In terms of economic magnitude, conditional on withdrawing, the median withdrawn amount is ₹3,500 with the average being ₹7,141. In contrast, conditional on trading, the median trading amount is ₹56,000 with the average being ₹207,000 (cf. Table 1).

Lastly, in Online Appendix Figure IAD4, we examine credit card transactions. Approximately 1.2% of individual-days observations correspond to day with credit card transaction. Conditional on a day with transaction, the median daily amount is ₹1,231 with the average being ₹50,007. In Panel A, the dependent variable is a dummy variable equal to one if we observe a credit card transaction on the individual's account on that day. In Panel B, the dependent variable is the arcsinh of the transaction amount. Across both panels, we do not see a change in credit card transaction activities.

An important caveat of this analysis is that we do not have data on individuals' physical off-account cash and commodity holdings. It is common for people to purchase gold, silver, and other metals around this time, as it is considered auspicious and the metals are associated with prosperity and good fortune. At the same time, investors may perceive holding large quantities of gold (a traditional store of value) as having a higher opportunity cost, or have different return expectations on gold,

compared to stocks. Consequently, they may reallocate their wealth into equities during the festival, driven by the perception of better returns in stocks over gold. In theory, this shift could contribute to the observed increase in equity investment. While our empirical tests alleviate general concerns about wealth effects driving the results, our data do not permit a direct test of this specific channel. However, the tests in Section 6 help rule out this and other broad alternative explanations, particularly by examining trading behaviors on other religious event days as well as the types of stocks purchased by treated individuals on event days.

# 6 Isolating Religious Motives

In this section, present several tests that validate the interpretation of the observed trading patterns as responses to the religious cue associated with the event. First, we test whether individuals trading behaviors differ on other religious event days that are not associated with similar beliefs about wealth and long-term prosperity, for both the treated and control groups. Second, we characterize whether the trading activity on the event-days is aligned with the festival's emphasis on new beginnings and long-term prosperity.

## 6.1 Trading on Other Religious Events

We examine trading by investors on (i) other religious events of similar significance that lack the associated beliefs and (ii) religious events of similar significance for the control religious groups. We follow Iyer (2018) to generate a list of religious events for the treated and control groups. They conducted a survey of 568 religious organizations in India and classify their largest religious gatherings which are festivals. These gatherings range from fewer than 1,000 to more than 500,000 devotees. We then hand-collect information on these events. Online Appendix Section A presents the list of events and their cultural significance. We estimate the following regression specification:

$$\begin{aligned} Y_{i,t} = \beta \cdot \ & Treated_i \times \{Other\ Hindu\ Event\}_t \\ & + \kappa \cdot \ Affected\ Control_i \times \{Non-Hindu\ Event\}_t + \gamma_i + \delta_t + \epsilon_{i,t}, \end{aligned} \tag{7}$$

where the observations are at the account ($i$) and date ($t$) levels. The variable $\{Other\ Hindu\ Event\}_t$ is a dummy equal to 1 if date $t$ corresponds to other Hindu religious events of similar cultural significance (excluding the Diwali festival) and $\{Non-Hindu\ Event\}_t$ is a dummy equal to 1 if date $t$ corresponds to non-Hindu religious events of similar cultural significance. $Treated_i$ is a dummy indicating whether individual $i$ is inferred to be Hindu while $Affected\ Control_i$ is a dummy variable equal to one if individual $i$ is affected by the non-Hindu religious event according to her inferred religion. $\gamma_i$ and $\delta_t$ are individual and date fixed effects respectively. Standard errors are double-clustered at the individual and date levels.

The dependent variables $Y_{i,t}$ are either a dummy variable equal to 1 if the individual trades, buys or sells on date $t$, or a continuous variable defined as the inverse hyperbolic sine (arcsinh) of the amount spent on trading, buying or selling on date $t$. Importantly, for both types of dependent variable we include non-trading days in our sample.[26]

Online Appendix Table IAD5 presents the results from this exercise. Compared to our baseline results, in Columns (1), (3), and (5), if anything, we see that individuals from the treated groups are less likely to trade—buy or sell, on other days of similar religious significance. In the second set of tests, in Columns (2), (4), and (6), we identify religious events of similar significance for the control group and find no effect. The benefit of this empirical specification is that it allows us to contrast the effects for individuals across religious groups, holding fixed the religion-specific cue of the events.

To examine the dynamics of trading activity around other religious events, we estimate event-study specification similar to Equation (6), replacing the Muhurat trading event with other religious events and where treated refers to individuals affected by their respective religious events. Figure 3 shows that, in contrast to our main findings, both treated and control investors are no more likely to trade—buy or sell—on their respective religious event-days. These results are most consistent with the explanation that the effects we document stem from the religious cue associated with the event, which we test in the subsequent analyses.

[26]Note that we exclude the festival itself from the set of events in the analyses. Furthermore, for events where the day of the event coincides with the closing of the stock market, we redefine the day of the event as the first day after the event the stock markets are open.

### 6.2 Buying Behaviors: New vs. Existing Holdings

Next, we proceed to cleanly link buying behaviors to religious-cue-driven motives. Given the festival's emphasis on new beginnings and long-term prosperity, we examine buying behaviors with a focus on whether investors are more inclined to purchase new stocks—holdings not already in their portfolios—or whether they add additional shares to their existing holdings.

Panel A of Table 4 presents the estimation results of regression Equation (5), where the dependent variable is equal to 100 if the individual buys only new stocks (Columns (1)-(3)), only existing holdings (Columns (4)-(6)), or both (Columns (7)-(9)) on that day, and 0 otherwise. We find that treated investors tend to exclusively purchase new stocks, while they do not exclusively increase their holdings of existing stocks in their portfolio.

The estimates indicate that the interaction term *Event Day* $\times$ *Treated* is positive and statistically significant across Columns (1) to (3) for new holdings. These coefficients range from 0.76 to 0.84, representing more than 30% of the dependent variable's sample mean (2.38). Conversely, the coefficients for existing holdings in Columns (4) to (6) are statistically insignificant, indicating no significant change in the likelihood of simply purchasing additional shares of stocks already held. For individuals buying both new and existing holdings, in Columns (7) to (9), the interaction term is also positive and significant, although the effect size is smaller than for purely new holdings, suggesting that they predominantly focus on acquiring new stocks. Panel B examines the amount spent on buying trades and reinforces the findings in Panel A, suggesting that the increased spending by treated investors on the event day is primarily directed toward new acquisitions rather than augmenting existing positions.

Overall, these patterns align with the religious cue around new beginnings and long-term prosperity influencing treated investors to expand their portfolios with new stocks rather than simply reinforcing existing investments.

### 6.3 Characteristics of Stocks Purchased on the Event

We then analyze the characteristics of stocks purchased by treated individuals on the event day. The goal of this exercise is two-fold. First, we aim to investigate whether the characteristics of the purchased stocks align with the cue's message associated with the festival, which emphasizes long-term

prosperity. Second, it aims to shed light on whether treated individuals perceive the event as an opportunity for gambling and speculation. Therefore, in our tests, we examine two groups of stock characteristics: (i) firm-level fundamentals and (ii) lottery-like features.

**Stock Characteristics.** We construct an individual-date level dataset, restricted to days when an individual buys at least one stock ("buy-days"). For each treated investor on a buy-day, we compute the average percentile rank of the purchased stocks across a set of characteristics. Specifically, for each stock characteristic, we rank all listed stocks cross-sectionally on that day and compute the average percentile rank of the stocks purchased by individual $i$ on date $t$. We estimate the following regression:

$$CharacteristicPercentile_{i,t} = \beta \cdot Event_t + \gamma_{i \times Year(t)} + \epsilon_{i,t}, \tag{8}$$

where $CharacteristicPercentile_{i,t}$ is the average percentile rank of the stocks purchased by individual $i$ on date $t$, based on a given characteristic. The independent variable, $Event_t$, is a dummy equal to 1 if date $t$ is an event day. The regression includes individual-year fixed effects ($\gamma_{i \times Year(t)}$) to control for time-varying individual-level preferences, allowing us to isolate changes in stock selection specific to the event day. Therefore, $\beta$ in equation (8) captures whether treated individuals are more or less likely to buy stocks with certain characteristics on the event day, relative to the characteristics of the stocks they purchase on other days within the same year.[27] Standard errors are double-clustered at the individual and stock levels.

Figure 4 presents the estimated coefficients $\beta$ from equation (8), along with 95% confidence intervals, across a range of stock characteristics. Panel A reports estimates for the following firm-level attributes: market capitalization, book-to-market ratio, firm age, past-year return, and past-year volatility. Market capitalization is measured as of the day prior to the transaction ($t-1$). Book-to-market ratios are based on the most recently available book value from the previous fiscal year. Firm age is defined as the number of years since the stock's initial listing on either the NSE or BSE. Return and volatility are computed using daily returns over the year preceding day $t$. Summary statistics for stock-date level characteristics are provided in Online Appendix Table IAD6.

[27] In Online Appendix C.3, we examine the characteristics of the stocks purchased by treated individuals on event days, without comparing them to purchases made on non-event days.

The results indicate that treated individuals are significantly more likely to purchase stocks with higher market capitalization, with the estimated coefficient corresponding to approximately a 2.5 higher percentile rank. The second coefficient reveals a preference for growth-oriented stocks, as treated investors are more inclined to buy stocks with lower book-to-market ratios (coefficient of $-1.4$). Panel A also shows a clear tendency to purchase "older" firms, with a coefficient of 2.2, and a preference for stocks with stronger recent performance, reflected in a past-year return coefficient of 3.0. Finally, treated investors are significantly less likely to purchase stocks with high past-year volatility (coefficient of $-4.6$).

In Online Appendix Figure IAD5, we extend the analysis to include additional stock characteristics motivated by Balasubramaniam et al. (2023), who document their influence on stock holding behavior in India. Specifically, we examine whether the stocks purchased on event days: (i) paid dividends in the past year, (ii) had higher average turnover over the past year, (iii) reported higher earnings-per-share (EPS) based on the most recent year-end financials, and (iv) exhibited higher market beta, computed using daily returns and the Indian Fama-French factors over the preceding year. The results indicate that treated individuals are not significantly more likely to purchase stocks with these characteristics on event days relative to other buy-days.

Taken together, our results suggest that on event days, treated individuals primarily invest in well-established companies—characterized by larger market capitalization, longer listing history, higher past returns, and lower volatility. This pattern is consistent with the event's cue that emphasizes new beginnings and long-term prosperity.

**Lottery-like Characteristics.** Next, we investigate whether treated individuals perceive the event as an opportunity for gambling-like behavior by examining their preferences for stocks with lottery-like characteristics. These characteristics, which appeal to speculative investors, include attributes such as high return skewness. Our hypothesis is that if treated individuals exhibit strong preference for these speculative features on event days, this would suggest that the event likely serves as an opportunity to gamble, inconsistent with the theme of long-term wealth associated with the festival.

We estimate the same regression specification as in Equation (8), focusing on the following stock attributes: share price on the day before the event and three measures of skewness, following Gao

and Lin (2015), computed using daily data over the year before the event. The first measure, conventional skewness, is the third central moment of the return distribution divided by the cube of standard deviation, which provides a measure of the asymmetry in returns. The second measure, Pearson's skewness coefficient, is calculated as $3 \times (\text{Mean} - \text{Median})/\text{Standard Deviation}$ and captures the degree of asymmetry relative to the center of the distribution. The third measure, up-to-down volatility, reflects the relative frequency and magnitude of positive versus negative daily returns and is computed as:

$$-\log\left(\frac{(n_u - 1)\sum_{\text{DOWN}} r_{it}^2}{(n_d - 1)\sum_{\text{UP}} r_{it}^2}\right), \tag{9}$$

where $r_{it}$ represents the daily return for stock $i$, $n_u$ ($n_d$) represents the number of days when the daily return is higher (lower) relative to the period mean, and $\sum_{\text{DOWN}} r_{it}^2$ ($\sum_{\text{UP}} r_{it}^2$) represents the sum of squared returns for days below (above) the period mean.[28]

Panel B of Figure 4 presents the estimated coefficients $\beta$ from equation (8). The first coefficient shows that, if anything, treated individuals are more likely to purchase stocks with higher share price on event days. The other coefficients show that they exhibit no significant preference for stocks with higher past-year return skewness, Pearson skewness, or high up-to-down volatility.

In summary, we find that treated individuals do not favor lottery-like stocks on event days, inconsistent with speculative and gambling behavior, a key point of departure from the extant literature. Prior work has often used religion as a proxy for gambling propensity (see, for instance Kumar, 2009; Kumar, Page, and Spalt, 2011). In our setting, the ability to control for differences in individual characteristics (correlated with religion) combined with the event's cue uncovers the novel role of religion in fostering non-speculative trading behavior.

**Future Returns.** Finally, we assess whether the stocks purchased by treated individuals on the event day tend to perform better or worse than those they buy on other days. To do so, we estimate the same regression specification as in Equation (8), using as the dependent variable the average percentile rank of the purchased stocks' returns over various future horizons: the next day, week, month, six months, and one year.

[28] This measure is derived from Chen et al. (2001) and is the negative of their $DUVOL$ metric, where higher values indicate greater relative volatility in negative returns compared to positive returns.

Panel C of Figure 4 presents the estimated coefficients $\beta$ from Equation (8). The results indicate that event-day purchases tend to outperform other purchases over the medium to long run—specifically over the following six months and one year. This is consistent with the types of stocks treated individuals tend to buy on event days: large-cap, low-volatility stocks with strong recent performance (cf., Panel A). These characteristics align with factors such as market, momentum, and low-volatility, which have been shown in the literature to earn positive risk premia.

From a wealth accumulation perspective, our findings suggest that treated individuals do not make poorer stock selection decisions on the event day; if anything, their selection is associated with better future performance.

### 6.4 Likelihood to Sell Stocks Purchased on the Event

In this section, we conduct additional tests to tie the findings on trading patterns to the religious cue. An intuitive implication of the festival's emphasis on long-term prosperity is that treated investors should hold onto stocks purchased on the event day for an extended period, rather than selling them shortly after. Therefore, we examine the likelihood of liquidation and the holding duration of event-purchased stocks.

**Empirical Specification.** We use our holding sample at the investor-stock-date level to analyze differences in holding behavior between stocks purchased on the event and those bought on other days, while controlling for stock-level characteristics. We include all treated investors and the full set of trading days in our analysis, estimating the following specification:

$$Sell_{i,j,t} = \beta_1 \cdot \{Purchased\ on\ Event\}_{i,j,t} + \phi X_{i,j,t} + \gamma_{i,t} + \delta_{j,t} + \epsilon_{i,j,t} \tag{10}$$

where $i$, $j$, and $t$ denote individual, stock, and date, respectively. The dependent variable $Sell_{i,j,t}$ equals 100 if individual $i$ sells stock $j$ on date $t$, fully or partially, conditional on it being in their portfolio the previous day, and 0 otherwise. This variable is thus expressed in percentage points. The variable $Purchased\ on\ Event$ is a dummy equal to 1 if some shares of stock $j$ were purchased by individual $i$ for the first time on event day. If the stock is fully sold and later repurchased, it is treated

as a new position, resetting the dummy to zero.

The time-varying controls ($X_{i,j,t}$) include several variables known to influence selling behavior, as outlined in Ben-David and Hirshleifer (2012). First, we include a dummy indicating whether the stock is trading at a paper gain relative to its weighted-average purchase price, controlling for the well-documented disposition effect among individual investors (e.g. Odean, 1998a). Second, the square root of the number of days the stock has been held is included to account for the time structure of selling likelihood. We also include the return since purchase for stocks in paper loss (or gain) and zero otherwise, along with interactions between these returns and the square root of holding duration. Finally, the logarithm of the weighted-average purchase price is included. Individual $\times$ date fixed effects ($\gamma_{i,t}$) account for unobservable individual-specific factors that vary over time, such as personal liquidity shocks. Stock $\times$ date fixed effects ($\delta_{j,t}$) absorb time-varying stock-level factors, including news or changes in fundamentals. Standard errors are double-clustered at the individual and date levels.

**Results.** Table 5 presents the regression results. In Panel A, the sample is unconditional, i.e., it includes investor-days on which no trades occur, while in Panel B it consists only of days when the individual sells at least one stock. All columns include stock $\times$ date fixed effects. Columns (1) and (2) include individual fixed effects, while columns (3) and (4) incorporate individual $\times$ date fixed effects. Control variables are included in Columns (2) and (4).

In Panel A, the coefficient on *Purchased on Event* is negative and highly significant ($t$-stat $\approx 4$ across all columns), ranging from -0.13 to -0.25. The effect size represents 7% to 13% of the dependent variable's mean (2). In Panel B, we restrict the sample to sell days, with the coefficients on *Purchased on Event* being larger in magnitude, ranging from -1.5 to -1.7, and remain highly statistically significant ($t$-stat around 3 in all columns). The effect size is notable and approximately 30% of the dependent variable's mean in this sample (5). These results show that treated individuals exhibit a strong aversion to selling event-purchased stocks.

Note that the empirical specifications control for granular time-varying individual and stock characteristics allowing us to cleanly isolate *changes* in trading horizon driven by religion. The tendency to retain stocks rather than engage in short-term trading aligns with individuals' beliefs about long-term

wealth creation associated with the festival.

**Disposition Effect.** The lower likelihood of selling event-purchased stocks raises the natural question of whether treated individuals are reluctant to realize their losses—the disposition effect—on these stocks (see, for instance, Odean, 1998a). To test this, we estimate regression Equation (10), adding an interaction term between a dummy variable ($Gain$), which equals one if the stock's return since purchase is positive, and $Purchased\ on\ Event$ to assess whether the disposition effect differs for these stocks.

The results in Online Appendix Table IAD7 confirm a strong disposition effect for stocks purchased on non-event days, as evidenced by the significant coefficients on $Gain$, which range from 0.64 to 0.75 in Panel A (unconditional sample) and are approximately an order of magnitude larger in Panel B (sale-conditioned sample). This indicates that investors are substantially more likely to sell stocks when they are trading at a gain. In contrast, the interaction term $Purchased\ on\ Event \times Gain$ is consistently negative across all specifications, although its statistical significance varies between panels A and B. We find that, if anything, the disposition effect appears to be weaker for event-purchased stocks. Overall, these findings confirm that treated individuals indeed distinguish event-purchased stocks from other stocks in their portfolios.

# 7 Portfolio Implications and Account Size Inequality

In last section, we examine whether the trading patterns observed on the event, along with the tendency of treated individuals to hold onto event-purchased stocks for longer, lead to persistent changes in their portfolios. While attributing long-term portfolio outcomes solely to trading decisions made on the event is inherently challenging, we can analyze individual portfolios over windows of several months around each event. By focusing on these periods, we capture meaningful shifts in portfolio composition and whether these changes persist over time, providing insight into the broader implications of religious cues on individuals' portfolios.

### 7.1 Portfolio Implications

**Empirical Strategy.** To trace the effects on individual portfolios, we construct six-month windows around each event, spanning three months before and three months after. Specifically, for each event in our sample (a "cohort"), we define a fixed-length window centered on the event date and track individual portfolio characteristics within this period. We then stack these event windows across all events, effectively creating a cohort-account-date level dataset that captures individual portfolio dynamics relative to the event. This approach is similar to a stacked difference-in-differences (as in Gormley and Matsa, 2011; Cengiz et al., 2019).

We focus on treated investors and examine how their portfolios evolve before and after each event, differentiating between those who actively participate by purchasing stocks on the event day and those who do not. We estimate the following regression:

$$Y_{i,c,t} = \beta \cdot \{Post_{c,t} \times EventBuyer_{i,c}\} + \gamma_{i,c} + \delta_{t,c} + \epsilon_{i,c,t}, \tag{11}$$

where $c$, $i$, and $t$ denote cohort, individual and date respectively. The variable $Post_{c,t}$ is a dummy equal to 1 if date $t$ falls on or after the event for cohort $c$. $EventBuyer_{i,c}$ is a dummy equal to 1 if individual $i$ purchases stocks on the event day of cohort $c$. $\gamma_{i,c}$ and $\delta_{t,c}$ are individual-cohort and date-cohort fixed effects respectively. In some estimations, we further saturate the specification by adding trading intensity-date-cohort fixed effects. Trading intensity is defined at the individual-cohort level, classifying individuals into quartiles based on the number of trades they make over the cohort window. These fixed effects ensure that the estimated effects are not merely driven by individuals who trade more frequently, irrespective of whether it is an event day or not. In all specifications, standard errors are double-clustered at the individual and date levels.

We consider several dependent variables to characterize portfolio changes. First, to assess whether the increased buying behavior observed on the event translates into a larger equity account size, we use the logarithm of the individual's total stock portfolio value. Second, to examine whether the purchase of new stocks increases diversification, we consider two measures: (i) the logarithm of the number of stocks in the portfolio and (ii) the portfolio's HHI, defined as the sum of squared portfolio weights, ranging between 0 and 1. Lastly, to test whether this potential diversification leads to lower

portfolio volatility, we compute portfolio volatility as the rolling (annualized) standard deviation of portfolio returns over the past 21 trading days (approximately one month).

**Results.** The estimation results are presented in Table 6. The key coefficient of interest, $Post \times EventBuyer$, measures the change in portfolio outcomes after the event for treated individuals who participated by purchasing stocks on the event day, relative to treated individuals who did not. In Columns (1) and (2), the dependent variable is the logarithm of the individual's total stock portfolio value. The coefficient on $Post \times EventBuyer$ is positive and statistically significant: $0.24$ in Column (1) and $0.20$ in Column (2), both significant at the 1% level. The post-event large and sustained increase of more than $20\%$ in equity account size among participating treated individuals suggests that event-driven stock purchases lead to larger overall stock holdings.

Columns (3) and (4) report the impact on portfolio diversification measured by the logarithm of the number of stocks held. The coefficients are positive and statistically significant (between 0.10 and 0.11, and significant at the 1% level), indicating that event-day buyers hold over 10% more stocks in their portfolios post-event compared to pre-event levels, relative to non-buyers. This suggests that event buyers expand their portfolios and maintain this diversification several months after the event. Consistent with the increase in the number of stocks, Columns (5) and (6) show that the HHI decreases significantly post-event for event buyers (between $-0.026$ and $-0.028$, significant at the 1% level).

The impact of event-day stock purchases on portfolio volatility is negative, but its statistical significance varies. In Column (7), where date-cohort fixed effects are included, the coefficient is negative and significant ($-0.735$, significant at the 5% level), suggesting that portfolio volatility decreases by nearly one percentage point for event buyers relative to non-buyers. However, in Column (8), when controlling for trading intensity, the coefficient remains negative but is no longer statistically significant.

**Dynamics of the Effects.** To better understand the evolution of portfolio characteristics around the event, we estimate an event-study specification similar to Equation $(11)$, but replace the $Post$ indicator with a set of time-specific coefficients for each month before and after the event. This approach allows us to track the dynamics of the effect over time, identifying whether portfolio characteristics change

immediately in the event month and whether these changes persist in the long run. Specifically, we estimate:

$$Y_{i,c,t} = \sum_{\tau=-3,\tau\neq-1}^{+3} \beta_\tau \left\{ Month(\tau)_{c,t} \times EventBuyer_{i,c} \right\} + \gamma_{i,c} + \delta_{q,t,c} + \epsilon_{i,c,t}, \tag{12}$$

where $Month(\tau)_{c,t}$ is an indicator for month $\tau$ relative to the event, with $\tau = 0$ corresponding to the event month. The month immediately preceding the event ($\tau = -1$) serves as the baseline category and is omitted from the estimation. $\gamma_{i,c}$ and $\delta_{q,t,c}$ represent individual-cohort and trading intensity-date-cohort fixed effects, respectively. Standard errors are double-clustered at the individual and date levels.

Figure 5 presents the estimated coefficients $\beta_\tau$ from Equation (12), along with 95% confidence intervals. In Panel A, the dependent variable is the logarithm of the individual's total stock portfolio value. Consistent with evidence from the previous section, we observe a clear jump in the value of stock holdings for event buyers in the event month, relative to other treated individuals. The coefficients remain positive and significant in the month following the event, suggesting a persistent increase in equity account size. In Panel B, we see a similar pattern, where the dependent variable is the logarithm of the number of stocks held. Importantly, across the figures, we do not find a reversal in the months post-event, indicating that individuals maintain their broader portfolios over time.

Consistent with the increase in the number of stocks, Panel C shows that portfolio HHI significantly decreases in the event month, reflecting a more diversified portfolio. This effect does not revert post-event, suggesting a lasting impact on portfolio concentration. Finally, Panel D shows that portfolio volatility declines slowly in the months following the event for individuals who purchased stocks on the event day, relative to non-buyers. This delayed effect is expected, given that volatility is measured using a rolling 21-day window, requiring time for recent trading to influence observed portfolio volatility.

Overall, treated individuals who actively participate in the stock market on the event-day experience lasting effects on their portfolios. Event-driven purchases lead to a larger equity account size, greater portfolio diversification, and lower portfolio volatility. In doing so, we provide novel evidence on the role played by religion in shaping individual portfolios that have implications for long-term wealth accumulation.

### 7.2 Aggregate Effects: Impact on Account Size Inequality

Finally, we examine how event-driven purchases shape patterns of wealth accumulation and account size inequality. A growing literature has documented substantial heterogeneity in returns across individual investors, with important implications for the distribution of wealth. Using data on Indian stock portfolios, Campbell, Ramadorai, and Ranish (2019) show that return heterogeneity is a key driver of rising inequality in risky asset ownership. They attribute this to differences in diversification: larger accounts tend to hold more diversified portfolios and earn higher risk-adjusted returns, while smaller accounts are more concentrated in a few stocks. This dynamic reinforces wealth inequality over time. Building on our previous findings, we ask whether event-driven stock purchases vary systematically across investors' account size, and if so, whether the associated improvements in portfolio diversification may help reduce disparities in long-term wealth accumulation.

To investigate whether event-driven stock purchases vary systematically by investor characteristics, we condition on investors who purchase at least one stock on the event day and examine heterogeneity across the income and wealth distribution in Figure 6. Panel (a) shows that the value of event-driven purchases, relative to reported income at account opening, declines monotonically across income buckets, indicating that lower-income investors commit a larger share of their income to stock purchases on event days. Panel (b) confirms a similar pattern when scaling the event-driven purchase amount by beginning-of-year account size, which controls for differences in investment scale within each income bucket.[29]

We then turn to account size as a proxy for wealth. Panel (c) shows that the ratio of event-driven purchases to total account value measured at year-end declines monotonically across account size quartiles (defined at the start of the year). Likewise, Panel (d) shows that the share of the portfolio held in event-purchased stocks by the end of the sample period is highest among the smallest accounts and declines across the distribution. These patterns show that event-driven purchases represent a relatively larger financial commitment for less affluent investors, suggesting that religion may play a more prominent role in shaping investment behavior and subsequent returns for this group.

Together, these findings indicate that smaller investors respond more intensively to event-driven

[29]Throughout this analysis, "year" refers to the Indian accounting year, which runs from April $1^{st}$ to March $31^{st}$ of the following calendar year.

opportunities, both in terms of new investment flows and resulting portfolio composition. Combined with our earlier results on diversification, these results suggest that event-driven purchases have the potential to help mitigating return inequality—particularly among smaller accounts that are otherwise less exposed to the equity market and less diversified.

## Conclusion

This paper examines whether and to what extent religion influences individual investments and portfolio choices. Addressing this question is challenging absent data linking individuals' religious affiliation with their investments and identifying which portfolio choices are religion-driven, as opposed to reflecting other factors correlated with religion. In this paper, we combine individual trading account data allowing us to infer religious affiliation with a special trading session organized during a major religious festival by stock exchanges in India. We exploit a within-individual design, comparing treated investors to others less likely to be influenced by the religious messaging of the festival, on event-days relative to other days. This isolates religion-driven trades, allowing us to trace their effects on subsequent portfolio outcomes. Thus, our empirical approach provides a clean identification linking religion to individual portfolio allocation.

We document a direct and novel role for religion in shaping portfolio choices and long-term investments. Individuals who associate with beliefs about the specific religious event—promoting long-term prosperity—participate more actively and invest substantially larger amounts in the stock market on the event day. They buy new stocks rather than increasing existing holdings, avoiding lottery-like stocks. Moreover, they hold onto event-purchased stocks longer, leading to a persistent increase in both the size of their equity account and portfolio diversification post-event.

We find that event-driven purchases represent a significantly larger financial commitment for lower-income and smaller-wealth investors. These investors allocate a higher share of both income and account value to such purchases and end up with a greater portfolio share in event-purchased stocks. Taken together, our findings suggest that religion serves as a channel through which smaller investors engage with markets, increase equity exposures, and improve diversification, potentially mitigating return inequality for those otherwise most exposed to undiversified risk.

Our results have broader implications for financial inclusion and faith-based investing. First, our findings highlight religion as an economic force that may have important implications for wealth accumulation and inequality. Specifically, the results on stock selection, size of the equity accounts, and portfolio diversification, suggest that religion can benefit small investors and reduce the growth of inequality, especially in emerging markets. Second, as financial institutions and policymakers seek to engage individual investors, culturally resonant messaging—such as that embedded in Sharia-compliant funds, Catholic investment guidelines (e.g., the Vatican's 2023 *Mensuram Bonam*), and other faith-based financial products—could be leveraged to promote long-term investment and responsible financial decision-making.

# Figures

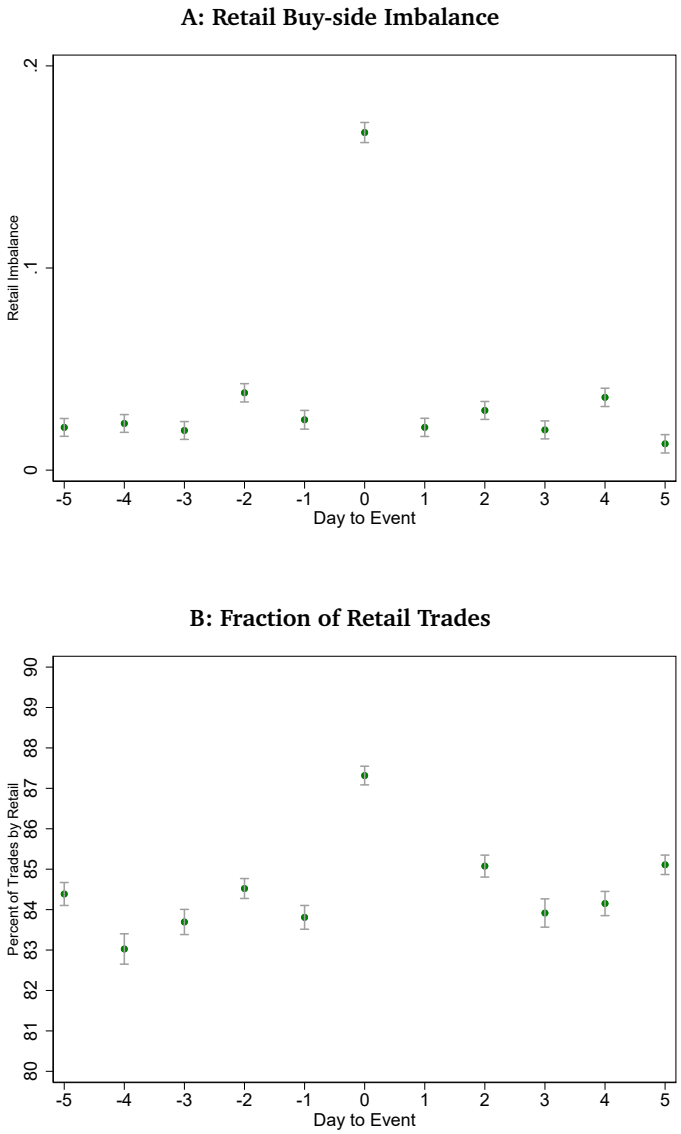
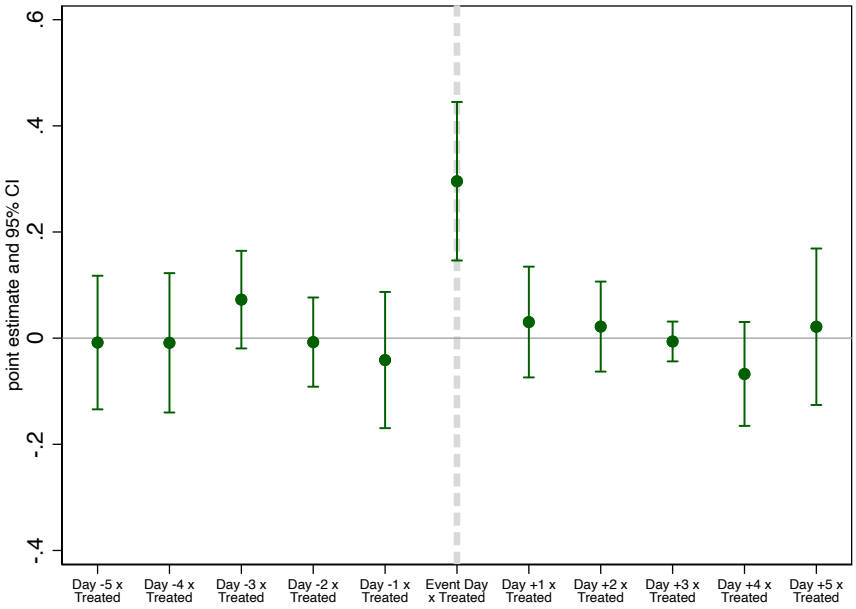



**Figure 1: Aggregate retail imbalance and share of retail trades around Diwali.** This figure plots the retail imbalance and share of retail trades means with 95% confidence intervals around the 5 days before and after Diwali for stocks trading on the National Stock Exchange (NSE). Retail imbalance is computed as $\frac{(buy+sell)}{buy-sell}$, where *buy* and *sell* are the number of buy and sell trades, respectively.

**Panel A: Total amount traded**




**Panel B: Amount spent on buy and sell trades**

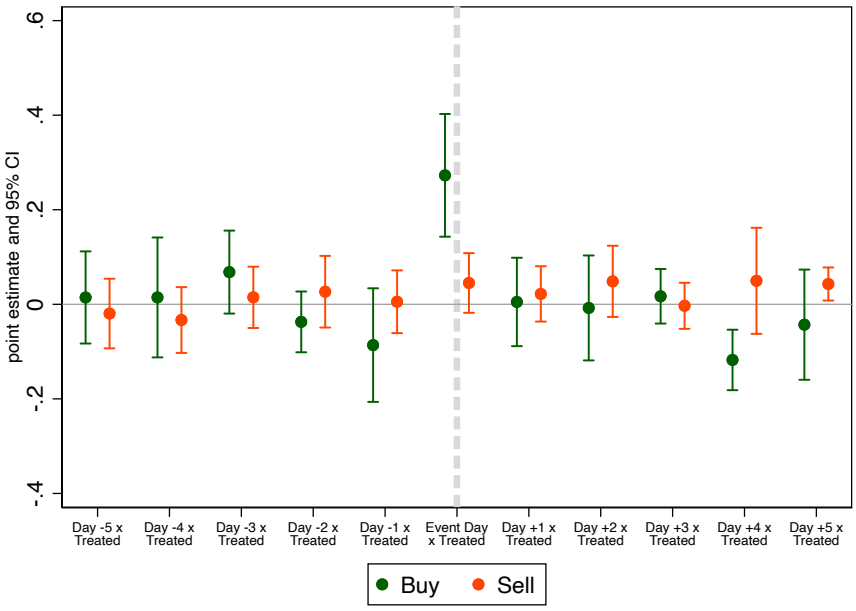



**Figure 2: Dynamics of the traded amount around the events.** This figure plots the coefficients $\beta_k$ on each day in equation: $Y_{i,t} = \sum_{k=-5}^{5} \beta_k \{Treated_i \times Day(k)_t\} + \alpha_i + \gamma_t + \epsilon_{i,t}$, where $i$ and $t$ denote the individual and date, and $Day(k)_t$ is a dummy equal to one if date $t$ corresponds to $k$ days before/after a Diwali day. $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. $\alpha_i$ and $\gamma_t$ denote individual and date fixed effects respectively. The dependent variable is the arcsinh of the amount traded in Panel A, and the arcsinh of the amount spent on buy and sell trades in panel B. Horizontal bars correspond to 95% confidence intervals. Standard errors are double-clustered at the investor and date levels.

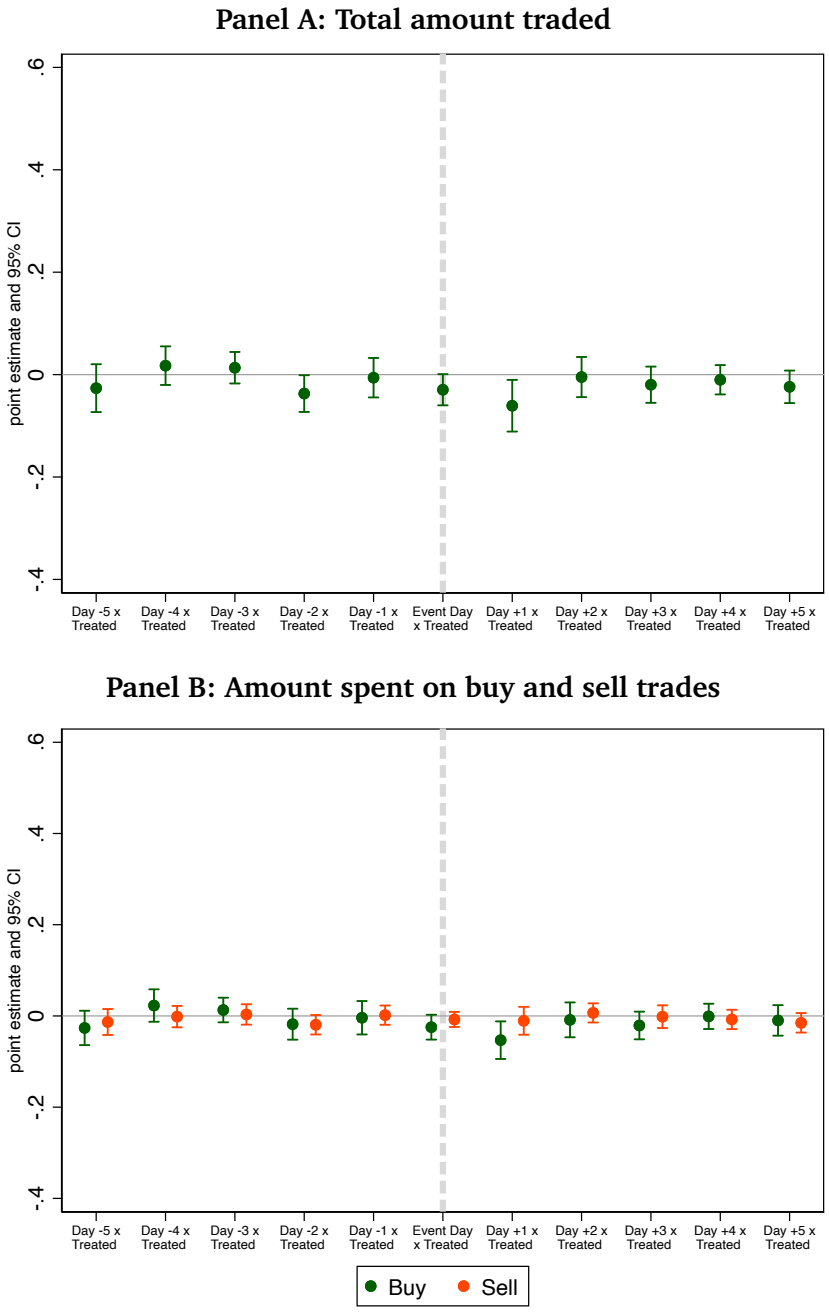



**Figure 3: Dynamics of the traded amount around other religious events.** This figure plots the coefficients $\beta_k$ on each day in equation: $Y_{i,t} = \sum_{k=-5}^{5} \beta_k \{Affected_i \times Day(k)_t\} + \alpha_i + \gamma_t + \epsilon_{i,t}$, where $i$ and $t$ denote the individual and date, and $Day(k)_t$ is a dummy equal to one if date $t$ corresponds to $k$ days before/after a religious event day (which is not Diwali). $Affected_i$ is a dummy variable equal to one if individual $i$ is affected by the religious event according to her inferred religion. $\alpha_i$ and $\gamma_t$ denote individual and date fixed effects respectively. The dependent variable is the arcsinh of the amount traded in Panel A, and the arcsinh of the amount spent on buy and sell trades in panel B. Horizontal bars correspond to 95% confidence intervals. Standard errors are clustered at the investor and date levels.

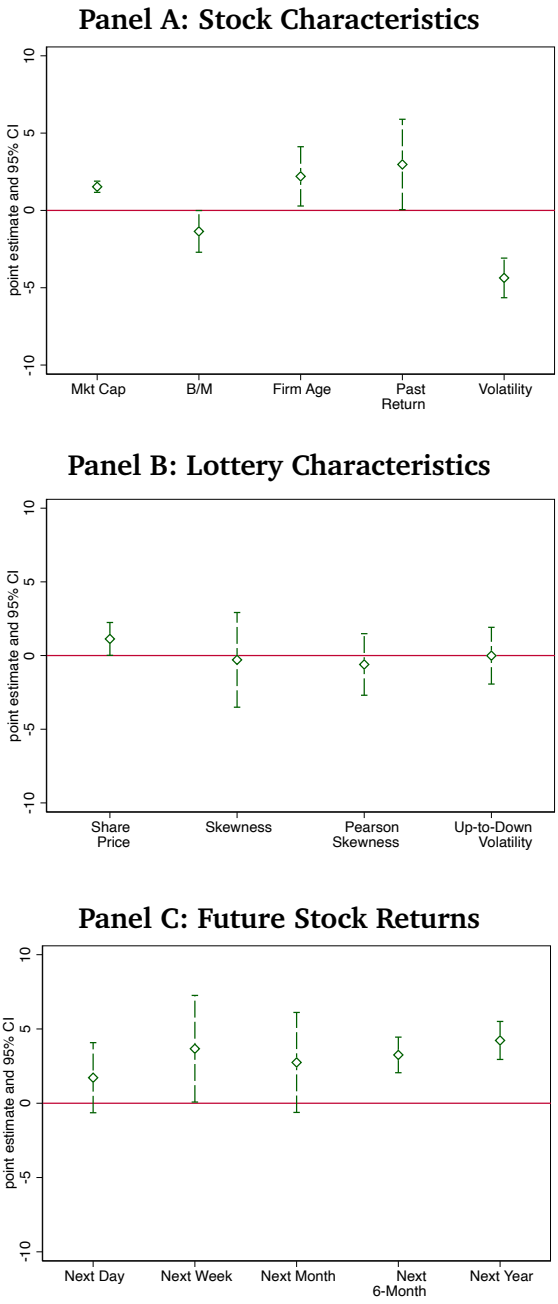



**Figure 4: Characteristics of stocks purchased on event days vs. other days.** This figure plots the estimated coefficients $\beta$ from equation (8), which measures the change in the average percentile rank of stock characteristics on event days relative to other buy-days for treated individuals (Hindus). The dependent variable is the average percentile rank of the stocks purchased by individual $i$ on day $t$, where the percentile is calculated daily based on the cross-sectional distribution of a given stock characteristic. The regression includes individual $\times$ year fixed effects. Standard errors are double-clustered at the individual and stock levels. Vertical lines represent 95% confidence intervals. Panel A presents results for firm-level characteristics: market capitalization, book-to-market ratio, firm age, past-year return, and past-year volatility. Panel B presents results for lottery-like characteristics: share price, skewness, Pearson skewness, and up-to-down volatility. Panel C presents results for stocks' future returns over the next day, week, month, six months and year.

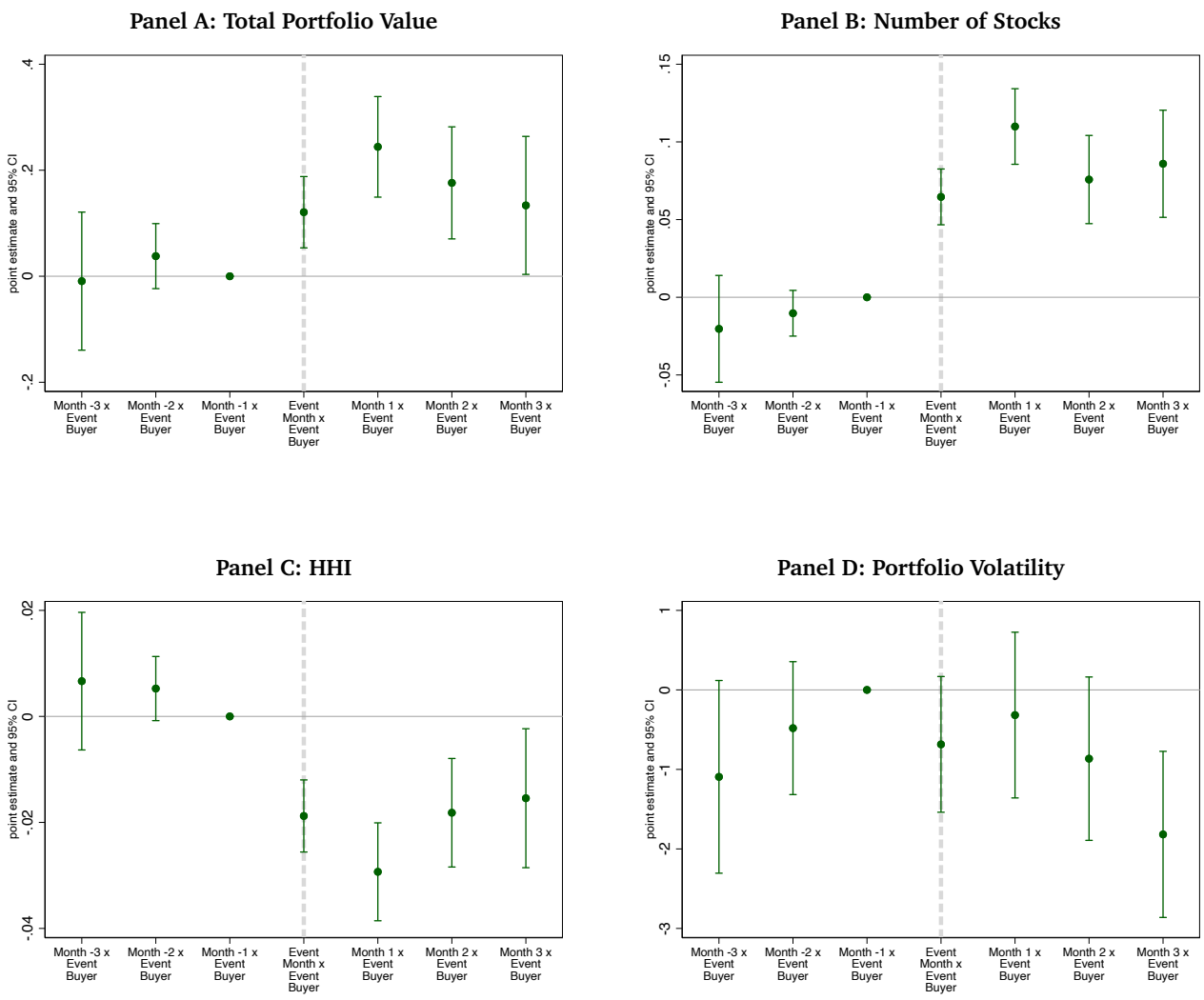
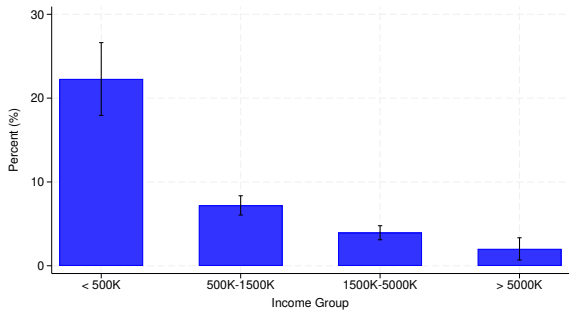
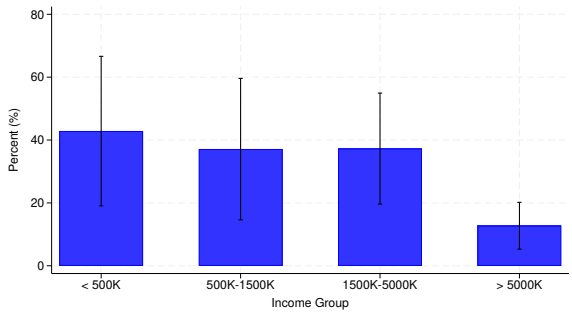


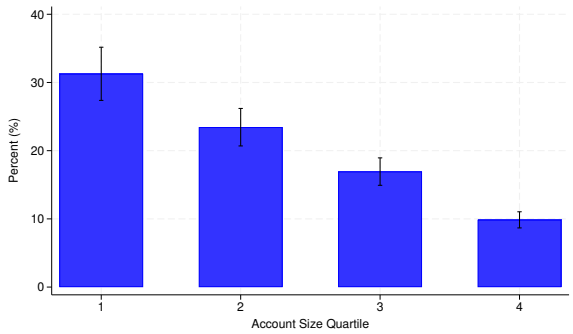

**Figure 5: Dynamics of portfolio characteristics in the months before and after the events.** This figure plots the estimated coefficients $\beta_\tau$ from Equation (12), capturing the evolution of portfolio characteristics before and after the event for treated individuals who purchase stocks on the event day, relative to other treated individuals. Regressions are estimated at the individual-date level for treated investors using stacked event windows around each Diwali event, where each cohort represents a separate event, and windows span three months before and three months after the event. The coefficients $\beta_\tau$ correspond to the interaction between a dummy indicating whether the individual purchases stocks on the event day of that cohort and a set of time-specific indicators for each of the three months before and after the event, with the month immediately preceding the event ($\tau = -1$) serving as the baseline category. The regression includes individual-cohort and trading intensity-date-cohort fixed effects. Panel A shows results for the logarithm of the individual's total stock portfolio value. Panel B examines the logarithm of the number of stocks held. Panel C uses the portfolio Herfindahl-Hirschman Index (HHI) as the dependent variable. Finally, Panel D studies portfolio volatility, measured as the standard deviation of portfolio returns over the past 21 days. Horizontal bars correspond to 95% confidence intervals. Standard errors are double-clustered at the investor and date levels.



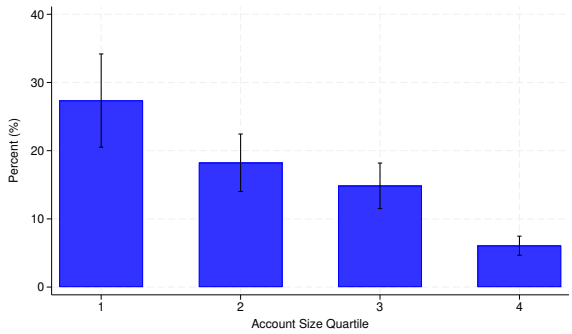

**(a)** Mean event buy amount relative to income




**(b)** Mean event buy amount relative to account size




**(c)** Fraction of event buy amount relative to account size




**(d)** Fraction of portfolio value in event-purchased stocks

**Figure 6: Aggregate Effects on Account Size Inequality.** The figures presents sample means with standard errors across measures of income and wealth, both in nominal '000 ₹ values. Panel (a) presents the average across individuals of the event-purchased amount relative to the income reported at the time of opening the account by income buckets, while panel (b) presents the average across individuals of the event-purchased amount relative to the size of the equity account at the end of year by income buckets. Panel (c) presents the average across individuals of the event-purchased amount relative to the size of the equity account by quartiles of account size defined based on the beginning of the year values. Panel (d) presents the fraction of the portfolio value in event-purchased stocks by quartiles of account size defined based on the beginning of the year values.

# Tables

**Table 1: Broker Dataset Summary Statistics** This table lists the account level (Panel A), account-date level (Panels B and C), and account-stock-date level (Panels D and E) summary statistics from our broker dataset. In addition, In Panel A, Age refers to age of the account holder as of June 2021, and income refers to the numeric midpoint in the income range given by the data provider. Panel C restricts the account-day sample to observations on days when individuals trade at least one stock. Panels D and E only include the holdings of treated individuals (Hindus). Panel E restricts the holdings sample to observations on days when individuals sell at least one stock. Over our sample window from 2012 to 2019, the average exchange rate is ₹64 to 1 USD.

| Variable | Obs | Mean | Sd | 5% | 25% | 50% | 75% | 95% |
|---|---|---|---|---|---|---|---|---|
| **Panel A: Account level** | | | | | | | | |
| Age | 24,112 | 42.77 | 13.75 | 27.00 | 32.00 | 38.00 | 51.00 | 70.00 |
| Male | 24,112 | 0.73 | 0.44 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Income (₹100,000s) | 24,112 | 8.12 | 10.84 | 3.00 | 3.00 | 3.00 | 7.00 | 23.00 |
| Treated | 24,112 | 0.90 | 0.30 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **Panel B: Account-date level (unconditional sample)** | | | | | | | | |
| Total Portfolio Value (₹1000s) | 6,090,768 | 1,067.19 | 4,106.18 | 1.43 | 41.86 | 185.15 | 700.45 | 4,279.75 |
| Nb. Stocks | 6,090,768 | 5.22 | 7.96 | 1.00 | 1.00 | 3.00 | 6.00 | 18.00 |
| Trade | 6,090,768 | 0.08 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Buy | 6,090,768 | 0.06 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Sell | 6,090,768 | 0.03 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Amount Traded (₹1000s) | 6,090,768 | 16.52 | 223.12 | 0.00 | 0.00 | 0.00 | 0.00 | 33.76 |
| Amount Buy Trades (₹1000s) | 6,090,768 | 9.79 | 151.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.93 |
| Amount Sell Trades (₹1000s) | 6,090,768 | 6.73 | 136.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Panel C: Account-date level (trade-conditioned sample)** | | | | | | | | |
| Total Portfolio Value (₹1000s) | 484,500 | 2,296.89 | 6,469.26 | 13.52 | 149.87 | 560.83 | 1,911.40 | 9,430.40 |
| Nb. Stocks | 484,500 | 11.45 | 15.71 | 1.00 | 3.00 | 7.00 | 14.00 | 37.00 |
| Buy | 484,500 | 0.76 | 0.43 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Sell | 484,500 | 0.36 | 0.48 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Amount Traded (₹1000s) | 484,500 | 207.64 | 765.61 | 1.92 | 19.51 | 55.91 | 158.88 | 772.01 |
| Amount Buy Trades (₹1000s) | 484,500 | 123.05 | 522.21 | 0.00 | 0.30 | 24.16 | 88.35 | 486.02 |
| Amount Sell Trades (₹1000s) | 484,500 | 84.59 | 477.42 | 0.00 | 0.00 | 0.00 | 37.27 | 358.34 |

*Continued next page*

*Summary statistics (continued)*

| Variable | Obs | Mean | Sd | 5% | 25% | 50% | 75% | 95% |
|---|---|---|---|---|---|---|---|---|
| **Panel D: Account-Stock-date level (unconditional sample)** | | | | | | | | |
| Trade | 28587808 | 0.03 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sell | 28587808 | 0.02 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Buy | 28587808 | 0.01 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Amount Traded (₹1000s) | 28,587,808 | 3.10 | 69.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Amount Buy (₹1000s) | 28,587,808 | 1.84 | 52.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Amount Sell (₹1000s) | 28,587,808 | 1.26 | 44.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Time Owned (Days) | 28587808 | 146.70 | 158.61 | 5.00 | 34.00 | 93.00 | 204.00 | 481.00 |
| **Panel E: Account-Stock-date level (sale-conditioned sample)** | | | | | | | | |
| Trade | 2,122,229 | 0.15 | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Sell | 2,122,229 | 0.05 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Buy | 2,122,229 | 0.11 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Amount Traded (₹1000s) | 2,122,229 | 23.16 | 187.37 | 0.00 | 0.00 | 0.00 | 0.00 | 92.04 |
| Amount Buy (₹1000s) | 2,122,229 | 6.12 | 93.83 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Amount Sell (₹1000s) | 2,122,229 | 17.04 | 162.83 | 0.00 | 0.00 | 0.00 | 0.00 | 59.09 |
| Time Owned (Days) | 2,122,229 | 111.33 | 144.72 | 2.00 | 17.00 | 57.00 | 148.00 | 411.00 |

**Table 2: Trading behavior on Diwali day**

Regressions are estimated at the individual-date level. In Panel A, the dependent variable is a variable equal to 100 if the individual trades on that day, 0 otherwise. In Panel B, the dependent variable is the arcsinh of the amount traded by the individual on that day. $Event$ is a dummy equal to 1 if the day corresponds to the Diwali's Muhurat trading day, and $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Likelihood to trade**

| | Trade × 100 | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Event Day × Treated | 1.185*** | 1.111*** | 1.099*** | 1.284*** | 1.211*** |
| | (0.340) | (0.374) | (0.383) | (0.318) | (0.323) |
| Event Day | -0.711 | -0.931 | | | |
| | (1.285) | (0.951) | | | |
| Religion FE | Yes | No | No | No | No |
| Individual FE | No | Yes | Yes | Yes | Yes |
| Date FE | No | No | Yes | No | No |
| State × Date FE | No | No | No | Yes | No |
| District × Date FE | No | No | No | No | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.00 | 0.11 | 0.12 | 0.13 | 0.16 |

**Panel B: Amount traded**

| | Amount Traded | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Event Day × Treated | 0.158*** | 0.148*** | 0.147*** | 0.163*** | 0.154*** |
| | (0.034) | (0.039) | (0.040) | (0.035) | (0.034) |
| Event Day | -0.142 | -0.166 | | | |
| | (0.141) | (0.106) | | | |
| Religion FE | Yes | No | No | No | No |
| Individual FE | No | Yes | Yes | Yes | Yes |
| Date FE | No | No | Yes | No | No |
| State × Date FE | No | No | No | Yes | No |
| District × Date FE | No | No | No | No | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.00 | 0.11 | 0.12 | 0.13 | 0.16 |

**Table 3: Buying and selling behaviors on Diwali day**

Regressions are estimated at the individual-date level. In Panel A, in Columns (1) and (2) (resp. (3) and (4)), the dependent variable is a variable equal to 100 if the individual buys (resp. sells) on that day, 0 otherwise. In Panel B, in Columns (1) and (2) (resp. (3) and (4)), the dependent variable is the arcsinh of the amount spent on buy (resp. sell) trades by the individual on that day. $Event$ is a dummy equal to 1 if the day corresponds to the Diwali's Muhurat trading day, and $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Likelihood to buy and sell**

| | Buy × 100 | | | Sell × 100 | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Event Day × Treated | 1.183*** | 1.286*** | 1.229*** | -0.226 | 0.007 | -0.005 |
| | (0.330) | (0.271) | (0.301) | (0.158) | (0.168) | (0.142) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | No | No | Yes | No | No |
| State × Date FE | No | Yes | No | No | Yes | No |
| District × Date FE | No | No | Yes | No | No | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.10 | 0.11 | 0.14 | 0.08 | 0.08 | 0.12 |

**Panel B: Amount spent on buy and sell trades**

| | Amount Buy Trades | | | Amount Sell Trades | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Event Day × Treated | 0.158*** | 0.162*** | 0.157*** | -0.019 | 0.006 | 0.004 |
| | (0.034) | (0.030) | (0.031) | (0.017) | (0.019) | (0.016) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | No | No | Yes | No | No |
| State × Date FE | No | Yes | No | No | Yes | No |
| District × Date FE | No | No | Yes | No | No | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.10 | 0.11 | 0.14 | 0.08 | 0.08 | 0.12 |

**Table 4: Buying new versus existing holdings**

Regressions are estimated at the individual-date level. In Panel A, in Columns (1) to (3) (resp. (4) to (6)), the dependent variable is a variable equal to 100 if the individual buys exclusively new stocks (resp. existing holdings) on that day, 0 otherwise. In Columns (7) to (9), the dependent variable is equal to 100 if the individual buys both new stocks and existing holdings on that day, 0 otherwise. In Panel B, in Columns (1) to (3) (resp. (4) to (6)), the dependent variable is the arcsinh of the amount spent by the individual when buying exclusively new stocks (resp. existing holdings). In Columns (7) to (9), the dependent variable is the amount spent by the individual when buying both new stocks and existing holdings. $Event$ is a dummy equal to 1 if the day corresponds to the Diwali's Muhurat trading day, and $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Likelihood to buy**

| | Buy × 100 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | New Holdings | | | Existing Holdings | | | Both New and Existing | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Event Day × Treated | 0.844*** | 0.756*** | 0.758*** | -0.023 | 0.168 | 0.114 | 0.362** | 0.362** | 0.357** |
| | (0.203) | (0.229) | (0.243) | (0.292) | (0.192) | (0.184) | (0.156) | (0.157) | (0.163) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | No | No | Yes | No | No | Yes | No | No |
| State × Date FE | No | Yes | No | No | Yes | No | No | Yes | No |
| District × Date FE | No | No | Yes | No | No | Yes | No | No | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.04 | 0.05 | 0.09 | 0.10 | 0.10 | 0.13 | 0.03 | 0.04 | 0.07 |

**Panel B: Amount spent on buy**

| | Amount Buy Trades | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | New Holdings | | | Existing Holdings | | | Both New and Existing | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Event Day × Treated | 0.096*** | 0.085*** | 0.084*** | 0.017 | 0.032 | 0.028 | 0.045** | 0.046** | 0.045** |
| | (0.023) | (0.027) | (0.027) | (0.027) | (0.021) | (0.020) | (0.018) | (0.018) | (0.019) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | No | No | Yes | No | No | Yes | No | No |
| State × Date FE | No | Yes | No | No | Yes | No | No | Yes | No |
| District × Date FE | No | No | Yes | No | No | Yes | No | No | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.04 | 0.05 | 0.08 | 0.09 | 0.09 | 0.12 | 0.03 | 0.04 | 0.07 |

**Table 5: Likelihood to sell stocks purchased on Diwali day**

Regressions are estimated at the individual-stock-date level. For each trading day in our sample period, we include the holdings of treated investors (Hindus). In both panels, the dependent variable is a variable equal to 100 if the individual sells (fully or partially) the stock on that day. Panel A uses the unconditional sample, i.e., including days when no trading occurs. Panel B restricts the sample to observations where the individual sells on that day. $Purchased\ on\ Event$ is a dummy equal to 1 if some shares of the stock were purchased for the first time on Muhurat trading day. If the stock is sold off and repurchased later, it is considered a new position and the dummy is reset to zero. Control variables include a dummy indicating whether the stock is trading at a paper gain relative to its weighted-average purchase price, the logarithm of the weighted-average purchase price, the squared root of the number days the stock has been held, the return since purchase if the asset is in paper loss (gain) and zero otherwise, as well as their interactions with the squared root of the number days the stock has been held. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Unconditional sample**

| | Sell × 100 | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Purchased on Event | -0.207*** | -0.250*** | -0.133*** | -0.164*** |
| | (0.049) | (0.057) | (0.037) | (0.041) |
| Control Variables | No | Yes | No | Yes |
| Individual FE | Yes | Yes | No | No |
| Individual × Date FE | No | No | Yes | Yes |
| Stock × Date FE | Yes | Yes | Yes | Yes |
| Observations | 28,587,808 | 28,587,808 | 28,587,808 | 28,587,808 |
| $R^2$ | 0.072 | 0.074 | 0.295 | 0.296 |

**Panel B: Sale-conditioned sample**

| | Sell × 100 | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Purchased on Event | -1.593*** | -1.696*** | -1.463*** | -1.631*** |
| | (0.525) | (0.530) | (0.525) | (0.537) |
| Control Variables | No | Yes | No | Yes |
| Individual FE | Yes | Yes | No | No |
| Individual × Date FE | No | No | Yes | Yes |
| Stock × Date FE | Yes | Yes | Yes | Yes |
| Observations | 2,122,229 | 2,122,229 | 2,122,229 | 2,122,229 |
| $R^2$ | 0.322 | 0.327 | 0.396 | 0.401 |

**Table 6: Individual Portfolio Implications**

Regressions are estimated at the individual-date level for treated investors using stacked event windows constructed around each Diwali event, where each cohort represents a separate event, and windows span three months before and three months after the event. The dependent variables capture portfolio size, diversification, concentration, and volatility. Columns (1)–(2) examine the logarithm of the individual's total stock portfolio value, Columns (3)–(4) consider portfolio diversification, measured by the logarithm of the number of stocks held, and Columns (5)–(6) analyze portfolio concentration, proxied by the Herfindahl-Hirschman Index (HHI). Columns (7)–(8) estimate the impact on portfolio volatility, defined as the rolling (annualized) standard deviation of portfolio returns over the past 21 days. The key independent variable is $Post \times EventBuyer$, where $Post$ is a dummy equal to 1 if the day falls on or after the event for that cohort and $EventBuyer$ is a dummy equal to 1 if the individual purchases stocks on the event day of that cohort. Columns (1), (3), (5) and (7) include individual-cohort and date-cohort fixed effects, while Columns (2), (4), (6) and (8) further include trading intensity-date-cohort fixed effects, where trading intensity is measured at the individual-cohort level and classifies investors into quartiles based on their trading frequency within the cohort window. Standard errors (in parentheses) are double-clustered at the individual and date levels. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

| | Total Portfolio Value | | Nb. Stocks | | HHI | | Volatility (%) | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Post × Event Buyer | 0.240*** | 0.204*** | 0.107*** | 0.098*** | -0.028*** | -0.026*** | -0.735** | -0.348 |
| | (0.041) | (0.042) | (0.012) | (0.011) | (0.004) | (0.004) | (0.332) | (0.322) |
| Individual × Cohort FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Date × Cohort FE | Yes | No | Yes | No | Yes | No | Yes | No |
| Trading Intensity × Date × Cohort FE | No | Yes | No | Yes | No | Yes | No | Yes |
| Observations | 3,154,360 | 3,154,360 | 3,154,360 | 3,154,360 | 3,154,360 | 3,154,360 | 2,956,799 | 2,956,799 |
| $R^2$ | 0.86 | 0.86 | 0.93 | 0.93 | 0.88 | 0.89 | 0.50 | 0.50 |

# References


Abadie, A., S. Athey, G. W. Imbens, and J. M. Wooldridge (2023). When should you adjust standard errors for clustering? *Quarterly Journal of Economics 138*(1), 1–35.

Akerlof, G. A. and R. E. Kranton (2000). Economics and identity. *Quarterly Journal of Economics 115*(3), 715–753.

Anagol, S., V. Balasubramaniam, and T. Ramadorai (2021). Learning from noise: Evidence from india's ipo lotteries. *Journal of Financial Economics 140*(3), 965–986.

Andersen, S. and K. M. Nielsen (2011). Participation constraints in the stock market: Evidence from unexpected inheritance due to sudden death. *Review of Financial Studies 24*(5), 1667–1697.

Apesteguia, J., M. A. Ballester, and T. Cuhadaroglu (2023). A behavioral model of adaptation. *Journal of Economic Behavior & Organization 207*, 146–156.

Bach, L., L. E. Calvet, and P. Sodini (2020). Rich pickings? risk, return, and skill in household wealth. *American Economic Review 110*(9), 2703–2747.

Badarinza, C., V. Balasubramaniam, and T. Ramadorai (2019). The household finance landscape in emerging economies. *Annual Review of Financial Economics 11*(1), 109–129.

Baker, M. and J. Wurgler (2007). Investor sentiment in the stock market. *Journal of economic perspectives 21*(2), 129–151.

Balasubramaniam, V., J. Y. Campbell, T. Ramadorai, and B. Ranish (2023). Who owns what? a factor model for direct stockholding. *Journal of Finance 78*(3), 1545–1591.

Banerjee, A., E. Duflo, M. Ghatak, and J. Lafortune (2013). Marry for what? caste and mate selection in modern india. *American Economic Journal: Microeconomics 5*(2), 33–72.

Barber, B. M. and T. Odean (2000). Trading is hazardous to your wealth: The common stock investment performance of individual investors. *Journal of Finance 55*(2), 773–806.

Barber, B. M. and T. Odean (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies 21*(2), 785–818.

Barber, B. M., T. Odean, and N. Zhu (2008). Do retail trades move markets? *Review of Financial Studies 22*(1), 151–186.

Barberis, N. and M. Huang (2008). Stocks as lotteries: The implications of probability weighting for security prices. *American Economic Review 98*(5), 2066 – 2100.

Barberis, N. and W. Xiong (2012). Realization utility. *Journal of Financial Economics 104*(2), 251–271.

Barro, R. J. and R. M. McCleary (2003). Religion and economic growth across countries. *American sociological review 68*(5), 760–781.

Bazley, W., C. Cuculiza, and D. Ke (2025). Religion and financial hardship. *Working Paper*.

Bazzi, S., G. Koehler-Derrick, and B. Marx (2020). The institutional foundations of religious politics: Evidence from indonesia. *Quarterly Journal of Economics 135*(2), 845–911.

Becker, G. S. (1996). Accounting for tastes. *Harvard University Press*.

Ben-David, I., J. R. Graham, and C. R. Harvey (2013). Managerial miscalibration. *Quarterly Journal of Economics 128*(4), 1547 – 1584.

Ben-David, I. and D. Hirshleifer (2012). Are investors really reluctant to realize their losses? trading responses to past returns and the disposition effect. *Review of Financial Studies 25*(8), 2485–2532.

Benartzi, S. and R. H. Thaler (1999). Risk aversion or myopia? choices in repeated gambles and retirement investments. *Management science 45*(3), 364–381.

Bender, S., J. J. Choi, D. Dyson, and A. Z. Robertson (2022). Millionaires speak: What drives their personal investment decisions? *Journal of Financial Economics 146*(1), 305–330.

Benjamin, D. J., J. J. Choi, and G. Fisher (2016). Religious identity and economic behavior. *Review of Economics and Statistics 98*(4), 617–637.

Bernheim, B. D. and D. M. Garrett (2003). The effects of financial education in the workplace: Evidence from a survey of households. *Journal of Public Economics 87*(7-8), 1487–1519.

Bernheim, B. D. and A. Rangel (2004). Addiction and cue-triggered decision processes. *American Economic Review 94*(5), 1558–1590.

Bertrand, M., E. Duflo, and S. Mullainathan (2004). How much should we trust differences-in-differences estimates? *Quarterly Journal of Economics 119*(1), 249–275.

Bertrand, M., P. Mehta, and S. Mullainathan (2002). Ferreting out Tunneling: An Application to Indian Business Groups. *Quarterly Journal of Economics 117*(1), 121–148.

Bhagavatula, S., M. Bhalla, M. Goel, and B. Vissa (2019). Cultural diversity on corporate boards and firm outcomes. Technical report, Working paper.

Bharti, N. K., L. Chancel, T. Piketty, and A. Somanchi (2024). Income and wealth inequality in india, 1922-2023: The rise of the billionaire raj. *Working Paper*.

Briggs, J., D. Cesarini, E. Lindqvist, and R. Östling (2021). Windfall gains and stock market participation. *Journal of Financial Economics 139*(1), 57–83.

Brown, J. R., Z. Ivković, P. A. Smith, and S. Weisbenner (2008). Neighbors matter: Causal community effects and stock market participation. *Journal of Finance 63*(3), 1509–1531.

Bursztyn, L., S. Fiorin, D. Gottlieb, and M. Kanz (2019). Moral incentives in credit card debt repayment: Evidence from a field experiment. *Journal of Political Economy 127*(4), 1641–1683.

Butinda, L. D., A. A. Lameke, N. Nunn, M. Posch, and R. S. de la Sierra (2023). On the importance of african traditional religion for economic behavior. Technical report, National Bureau of Economic Research.

Caicedo, F. V. (2019). The mission: Human capital transmission, economic persistence, and culture in south america. *Quarterly Journal of Economics 134*(1), 507–556.

Campante, F. and D. Yanagizawa-Drott (2015a). Does religion affect economic growth and happiness? evidence from ramadan. *Quarterly Journal of Economics 130*(2), 615–658.

Campante, F. R. and D. H. Yanagizawa-Drott (2015b). The origins of religious festivals: Evidence from ramadan. *Econometrica 83*(5), 2085–2121.

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

Campbell, J. Y., T. Ramadorai, and B. Ranish (2014). Getting better or feeling better? how equity investors respond to investment experience. Technical report, National Bureau of Economic Research.

Campbell, J. Y., T. Ramadorai, and B. Ranish (2019). Do the rich get richer in the stock market? evidence from india. *American Economic Review: Insights 1*(2), 225–240.

Cannon, B., D. Hirshleifer, and J. Thornton (2024). Friends with benefits: Social capital and household financial behavior. Technical report, National Bureau of Economic Research.

Cengiz, D., A. Dube, A. Lindner, and B. Zipperer (2019). The effect of minimum wages on low-wage jobs. *Quarterly Journal of Economics 134*(3), 1405–1454.

Chen, J., H. Hong, and J. C. Stein (2001). Forecasting crashes: Trading volume, past returns, and conditional skewness in stock prices. *Journal of financial Economics 61*(3), 345–381.

Chen, Z., C. Ma, and A. J. Sinclair (2022). Banking on the confucian clan: why china developed financial markets so late. *Economic Journal 132*(644), 1378–1413.

Cole, S., A. Paulson, and G. K. Shastry (2014). Smart money? the effect of education on financial outcomes. *Review of Financial Studies 27*(7), 2022–2051.

Cookson, J. A., J. E. Engelberg, and W. Mullins (2023). Echo chambers. *Review of Financial Studies 36*(2), 450–500.

Da, Z., J. Engelberg, and P. Gao (2011). In search of attention. *Journal of Finance 66*(5), 1461–1499.

Da, Z., J. Engelberg, and P. Gao (2015). The sum of all fears investor sentiment and asset prices. *Review of Financial Studies 28*(1), 1–32.

Da, Z., X. Huang, and L. J. Jin (2021). Extrapolative beliefs in the cross-section: What can we learn from the crowds? *Journal of Financial Economics 140*(1), 175 – 196.

D'Acunto, F., P. Ghosh, and A. G. Rossi (2024). How costly are cultural biases? evidence from fintech. *Journal of Financial Economics*, Forthcoming.

Daniel, K., D. Hirshleifer, and A. Subrahmanyam (1998). Investor psychology and security market under- and overreactions. *Journal of Finance 53*(6), 1839 – 1885.

Demiroglu, C., O. Ozbas, R. C. Silva, and M. F. Ulu (2021). Do physiological and spiritual factors affect economic decisions? *Journal of Finance 76*(5), 2481–2523.

Edmans, A., D. Garcia, and Ø. Norli (2007). Sports sentiment and stock returns. *Journal of finance 62*(4), 1967–1998.

Espín-Sánchez, J.-A., S. Gil-Guirado, and N. Ryan (2023). Praying for rain. *Working Paper*.

Fisman, R., P. Ghosh, A. Sarkar, and J. Zhang (2023). Dirty air and green investments: The impact of pollution information on portfolio allocations. Technical report, National Bureau of Economic Research.

Fisman, R., D. Paravisini, and V. Vig (2017). Cultural proximity and loan outcomes. *American Economic Review 107*(2), 457–492.

Fisman, R., A. Sarkar, J. Skrastins, and V. Vig (2020). Experience of communal conflicts and intergroup lending. *Journal of Political Economy 128*(9), 3346–3375.

Fruehwirth, J. C., S. Iyer, and A. Zhang (2019). Religion and depression in adolescence. *Journal of Political Economy 127*(3), 1178–1209.

Fuller, C. (2004). *The Camphor Flame: Popular Hinduism and Society in India*. Princeton University Press.

Gao, X. and T.-C. Lin (2015). Do individual investors treat trading as a fun and exciting gambling activity? evidence from repeated natural experiments. *Review of Financial Studies 28*(7), 2128–2166.

Gelman, M., D. Hirshleifer, Y. Levi, and L. Reiter-Gavish (2024). Social interaction intensity and investor behavior. Technical report, National Bureau of Economic Research.

Gomes, F., M. Haliassos, and T. Ramadorai (2021). Household finance. *Journal of Economic Literature 59*(3), 919–1000.

Gopalan, R., A. Mukherjee, and M. Singh (2016). Do debt contract enforcement costs affect financing and asset structure? *Review of Financial Studies 29*(10), 2774–2813.

Gopalan, R., V. Nanda, and A. Seru (2007). Affiliated firms and financial support: Evidence from Indian business groups. *Journal of Financial Economics 86*(3), 759–795.

Gormley, T. A. and D. A. Matsa (2011). Growing out of trouble? corporate responses to liability risk. *Review of Financial Studies 24*(8), 2781–2821.

Grinblatt, M. and M. Keloharju (2000). The investment behavior and performance of various investor types: a study of finland's unique data set. *Journal of Financial Economics 55*(1), 43–67.

Grinblatt, M., M. Keloharju, and J. Linnainmaa (2011). Iq and stock market participation. *Journal of Finance 66*(6), 2121–2164.

Guiso, L., P. Sapienza, and L. Zingales (2003). People's opium? religion and economic attitudes. *Journal of Monetary Economics 50*(1), 225–282.

Guiso, L. and P. Sodini (2012). Household nance: An emerging eld. *Handbook of the Economics of Finance. Vol*.

Gul, F. and W. Pesendorfer (2001). Temptation and self-control. *Econometrica 69*(6), 1403–1435.

Haliassos, M. and C. C. Bertaut (1995). Why do so few hold stocks? *Economic Journal 105*(432), 1110–1129.

Hilary, G. and K. W. Hui (2009). Does religion matter in corporate decision making in america? *Journal of financial economics 93*(3), 455–473.

Hirshleifer, D. (2020). Presidential address: Social transmission bias in economics and finance. *Journal of Finance 75*(4), 1779–1831.

Hjort, J. (2021). Ethnic investing and the value of firms. *CEPR Discussion Paper No. DP16316*.

Hong, H., J. D. Kubik, and J. C. Stein (2004). Social interaction and stock-market participation. *Journal of Finance 59*(1), 137–163.

Ivković, Z. and S. Weisbenner (2007). Information diffusion effects in individual investors' common stock purchases: Covet thy neighbors' investment choices. *Review of Financial Studies 20*(4), 1327–1357.

Iyer, S. (2002). *Demography and religion in India*. Oxford University Press.

Iyer, S. (2016). The new economics of religion. *Journal of Economic Literature 54*(2), 395–441.

Iyer, S. (2018, 12). The economics of religion in india.

Jha, S. and M. Shayo (2019). Valuing peace: the effects of financial market exposure on votes and political attitudes. *Econometrica 87*(5), 1561–1588.

Jiang, F., K. John, C. W. Li, and Y. Qian (2018). Earthly reward to the religious: religiosity and the costs of public and private debt. *Journal of Financial and Quantitative Analysis 53*(5), 2131–2160.

Johnson, N. D. and M. Koyama (2017). Jewish communities and city growth in preindustrial europe. *Journal of Development Economics 127*, 339–354.

Kaniel, R., G. Saar, and S. Titman (2008). Individual investor trading and stock returns. *Journal of Finance 63*(1), 273–310.

Kaustia, M. and S. Knüpfer (2012). Peer performance and stock market entry. *Journal of Financial Economics 104*(2), 321–338.

Kaustia, M., S. Knüpfer, and S. Torstila (2016). Stock ownership and political behavior: evidence from demutualizations. *Management Science 62*(4), 945–963.

Kaustia, M. and S. Torstila (2011). Stock market aversion? political preferences and stock market participation. *Journal of Financial Economics 100*(1), 98–112.

Ke, D. (2018). Cross-country differences in household stock market participation: The role of gender norms. In *AEA Papers and Proceedings*, Volume 108, pp. 159–162. American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203.

Ke, D. (2024). Left behind: Partisan identity, stock market participation, and wealth inequality. *Journal of Banking & Finance 164*, 107201.

Kumar, A. (2009). Who gambles in the stock market? *Journal of finance 64*(4), 1889–1933.

Kumar, A., J. K. Page, and O. G. Spalt (2011). Religious beliefs, gambling attitudes, and financial market outcomes. *Journal of financial economics 102*(3), 671–708.

Kung, J. K.-s. and C. Ma (2014). Can cultural norms reduce conflicts? confucianism and peasant rebellions in qing china. *Journal of Development Economics 111*, 132–149.

Laibson, D. (2001). A cue-theory of consumption. *Quarterly Journal of Economics 116*(1), 81–119.

Le Rossignol, E., S. Lowes, and N. Nunn (2022). The social consequences of traditional religion in contemporary africa. Technical report, National Bureau of Economic Research.

Lilienfeld-Toal, U. v., D. Mookherjee, and S. Visaria (2012). The distributive impact of reforms in credit enforcement: Evidence from Indian debt recovery tribunals. *Econometrica 80*(2), 497–558.

Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational behavior and human decision processes 65*(3), 272–292.

Loomes, G. and R. Sugden (1982). Regret theory: An alternative theory of rational choice under uncertainty. *Economic Journal 92*(368), 805–824.

Meeuwis, M., J. A. Parker, A. Schoar, and D. Simester (2022). Belief disagreement and portfolio choice. *Journal of Finance 77*(6), 3191–3247.

Mehmood, S., A. Seror, and D. L. Chen (2023). Ramadan fasting increases leniency in judges from pakistan and india. *Nature human behaviour 7*(6), 874–880.

Meyer, S. and M. Pagel (2022). Fully closed: Individual responses to realized gains and losses. *Journal of Finance 77*(3), 1529–1585.

Montero, E. and D. Yang (2022). Religious festivals and economic development: Evidence from the timing of mexican saint day festivals. *American Economic Review 112*(10), 3176–3214.

Müller, K., Y. Pan, and C. Schwarz (2024). Social media and stock market participation. *Working Paper*.

Naaraayanan, S. L. and K. M. Nielsen (2021). Does personal liability deter individuals from serving as independent directors? *Journal of Financial Economics 140*(2), 621–643.

Naaraayanan, S. L. and D. Wolfenzon (2023). Business group spillovers. *Review of Financial Studies Forthcoming*.

Odean, T. (1998a). Are investors reluctant to realize their losses? *Journal of Finance 53*(5), 1775–1798.

Odean, T. (1998b). Volume, volatility, price, and profit when all traders are above average. *Journal of Finance 53*(6), 1887 – 1934.

Parker, J. A., A. Schoar, A. T. Cole, and D. Simester (2022). Household portfolios and retirement saving over the life cycle. Technical report, National Bureau of Economic Research.

Pascali, L. (2016). Banks and development: Jewish communities in the italian renaissance and current economic performance. *Review of Economics and Statistics 98*(1), 140–158.

Pennesi, D. (2021). A foundation for cue-triggered behavior. *Management Science 67*(4), 2403–2419.

Renneboog, L. and C. Spaenjers (2012). Religion, economic attitudes, and household finance. *Oxford economic papers 64*(1), 103–127.

Roberts, M. R. and T. M. Whited (2013). Endogeneity in empirical corporate finance1. In *Handbook of the Economics of Finance*, Volume 2, pp. 493–572. Elsevier.

Schneider, C. and O. Spalt (2016). Conglomerate investment, skewness, and the ceo long-shot bias. *Journal of Finance 71*(2), 635–672.

Seru, A., T. Shumway, and N. Stoffman (2010). Learning by trading. *Review of Financial Studies 23*(2), 705–739.

Shefrin, H. and M. Statman (2000). Behavioral portfolio theory. *Journal of Financial and Quantitative Analysis 35*(2), 127 – 151.

Shu, T., J. Sulaeman, and P. E. Yeung (2012). Local religious beliefs and mutual fund risk-taking behaviors. *Management Science 58*(10), 1779–1796.

Siegel, J. and P. Choudhury (2012). A reexamination of tunneling and business groups: New data and new methods. *Review of Financial Studies 25*(6), 1763–1798.

Sinding Bentzen, J. (2019). Acts of god? religiosity and natural disasters across subnational world districts. *Economic Journal 129*(622), 2295–2321.

Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral decision making 12*(3), 183–206.

Van Rooij, M., A. Lusardi, and R. Alessie (2011). Financial literacy and stock market participation. *Journal of Financial Economics 101*(2), 449–472.

Ver Beek, K. A. (2000). Spirituality: A development taboo. *Development in Practice 10*(1), 31–43.

# Internet Appendix
# FOR ONLINE PUBLICATION

# A Religion in India

**Table IAA1: World Values Survey - Religious Life in India** This table presents (weighted) tabulations of two questions related to religion asked in Wave 7 of the World Values Survey in India, for which data was collected over 2017 to 2022. Panel A presents tabulations of a question asking survey respondents how important religion is in their lives, while Panel B presents a tabulation of a question asking the frequency with which respondents attend religious service.

| | Frequency (1) | Percent (2) |
|---|---|---|
| | **Panel A: Question 6 - "Important in life: Religion"** | |
| Don't know | 12.22 | 0.72 |
| Very important | 1,086.11 | 64.19 |
| Rather important | 363.58 | 21.49 |
| Not very important | 150.75 | 8.91 |
| Not at all important | 79.35 | 4.69 |
| | **Panel B: Question 171 - "How often do you attend religious service?"** | |
| Don't know | 11.25 | 0.66 |
| More than once a week | 391.50 | 23.14 |
| Once a week | 410.81 | 24.28 |
| Once a month | 258.20 | 15.26 |
| Only on special holy days | 357.89 | 21.15 |
| Once a year | 43.89 | 2.59 |
| Less often | 152.82 | 9.03 |
| Never, practically never | 65.64 | 3.88 |

**Inferring Religion from Last Names.** We follow Bhagavatula, Bhalla, Goel, and Vissa (2019); D'Acunto, Ghosh, and Rossi (2024) and create a data-driven mapping of last names into distinct cultural groups. To identify religion, we leverage the fact that last names in India are strong indicators of both religion and caste, and that marriages in India are overwhelmingly intra-religious.

We utilize data from three major matrimonial websites, which provide the first and last names of approximately 26,700,000 users, along with their self-reported religions. Given that the relationship between last name and religion is not always one-to-one, we employ these data to assign probabilities indicating the likelihood that a particular last name corresponds to each religion within a specific region. The matrimonial dataset decomposes religion into the following seven categories: Hindu, Jain, Muslin, Sikh, Christian, Buddhist and Parsi.

Our last name to religion mapping strategy proceeds in three steps. First, we for each last name in the matrimonial database, we compute the count of the last name by state and religion, and calculate the probability of religion by last name and religion within state. We then select the most likely religion for each last name and state combination and assign that last name and state combination this most likely religion. If multiple religions are equally likely for a particular last name and state combination, we do not assign a religion. Within this dataset, we can assign a religion for approximately 98% of last name and state combinations. Finally, we match the most likely religion for each last name and state combination with the accounts in the broker dataset.

The strength of our surname- and state-based matching strategy to assign religious affiliation probabilities to individuals lies in the high degree of uniqueness and certainty it yields in assigning religion. Across all unique combinations of state

and surname in our data, the average number of distinct religions observed is only 1.09, indicating that the vast majority of combinations are associated with a single religious group. This narrow distribution is visually summarized in Figure IAA1, which shows that most state–surname pairs are linked to just one religion, and very few have more than two. Further confirming the precision of our matching, we find that the average probability of the most likely religion assigned to a state–surname pair is 98.3%. This implies that in nearly all cases, one religion overwhelmingly dominates within a given state–surname group. As shown in Table IAA2, over 92.9% of all combinations are assigned to a single religion with 100% certainty, while 96.4% exceed an 80% confidence threshold, and virtually all cases (99.9%) exceed 50%. Finally, in IAA4, we tabulate the average probability that a given surname-state combination is assigned to the the ultimate religion it is categorized as. This table indicates that across all religions, the probability of the surname-state combination belonging to the ultimate assignment religion is greater than 97%.

Among the 27,250 account holders in the broker dataset, we can match around 97% with a last name and state in the matrimonial database with an assigned religion. Given the low sample size of Buddhist and Parsi populations in our broker dataset, we focus on the following five main religious groups for our analysis: Hindu, Jain, Muslim, Sikh and Christian. Finally, we drop any account holders which we cannot match to a religion, arriving at a database of accounts of 26,353 individuals. The distribution of religion in our final sample of account holders is indicated in Table IAA3.

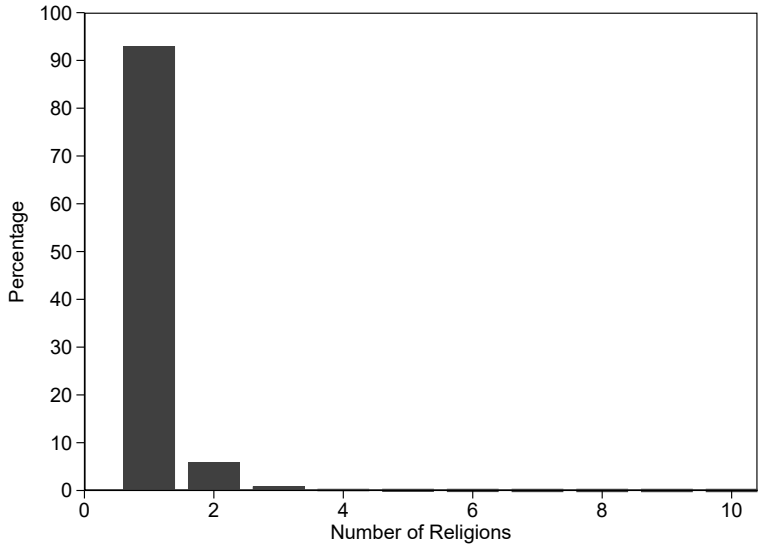



**Figure IAA1: Share of State-Surname Combinations Assigned to a Religion** This figure plots a histogram of the number of religions a given state-surname pair is assigned to in our matrimonial dataset.

**Table IAA2: Percent of State–Surname Combinations by Religion Assignment Certainty**
This table presents the proportion of state-surname combinations that are assigned to a single religion with 100% probability, with $\geq 80\%$ probability, and with $\geq 50\%$ probability in our matrimonial dataset.

| Assignment Certainty | Percent |
|---|---|
| 100% assigned | 92.97 |
| $\geq 80\%$ assigned | 96.42 |
| $\geq 50\%$ assigned | 99.88 |

**Table IAA3: Distribution of religion in broker dataset**
This table presents the distribution of religion for each account holder in the broker dataset.

| Religion | Count | Percent |
|---|---|---|
| Hindu | 21,705 | 90.02 |
| Jain | 1,056 | 4.38 |
| Muslim | 617 | 2.56 |
| Sikh | 491 | 2.04 |
| Christian | 243 | 1.01 |

**Table IAA4: Average Probability by Ultimate Assignment**
This table presents the average of the probability of a surname and state assigned to the religion that it is categorized as.

| Religion | Percent |
|---|---|
| Hindu | 99.41 |
| Jain | 97.00 |
| Muslim | 99.41 |
| Sikh | 97.87 |
| Christian | 99.10 |

# B Religious Events and Messaging

The Muhurat trading session, organized by the Bombay Stock Exchange and the National Stock Exchange, is advertised widely by both exchanges and individual brokers. The largest newspapers in India, including *The Times of India* and *Hindustan Times*, publish announcements of the date and time of the Muhurat trading session each year.[30] Figure IAB2 also presents examples of newspaper articles over our sample period referencing Muhurat trading, with references to the "auspicious" nature of the event, as well as "wealth and prosperity." The salience of the event and religious messaging are featured prominently in both the announcements and advertising. For example, many articles indicate this is an "auspicious" trading session, and including other religious messaging and imagery to accompany the announcements. Advertisements by the National Stock Exchange also reflects this sentiment, as Figure IAB1 demonstrates. In particular, these advertisements reference the auspicious nature of the trading session in addition to wealth and prosperity, with religious imagery.

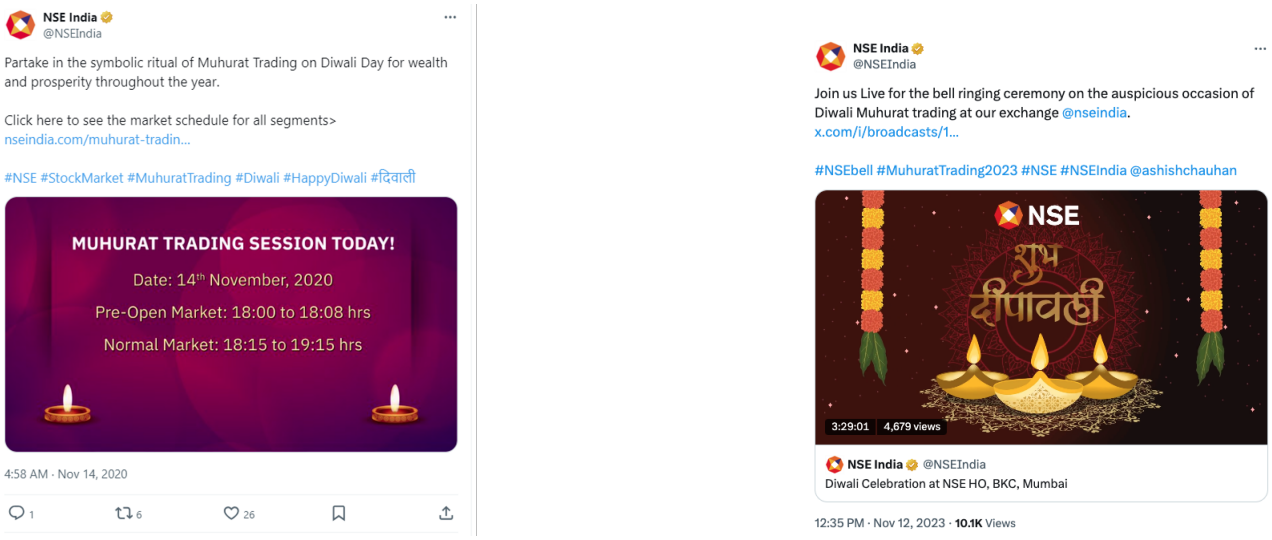



**Figure IAB1: National Stock Exchange Muhurat Trading Advertising.** This figure presents examples of Muhurat trading advertising on Twitter by the National Stock Exchange. The Tweets are available at https://x.com/NSEIndia/status/1327476084028260352 and https://x.com/NSEIndia/status/1723680845830168685.

[30] See, for example, https://timesofindia.indiatimes.com/business/india-business/muhurat-trading-2019-all-you-need-to-know/articleshow/71775284.cms and https://economictimes.indiatimes.com/markets/stocks/news/nse-bse-to-conduct-60-minute-muhurat-trading-on-diwali/articleshow/49616210.cms?from=mdr.

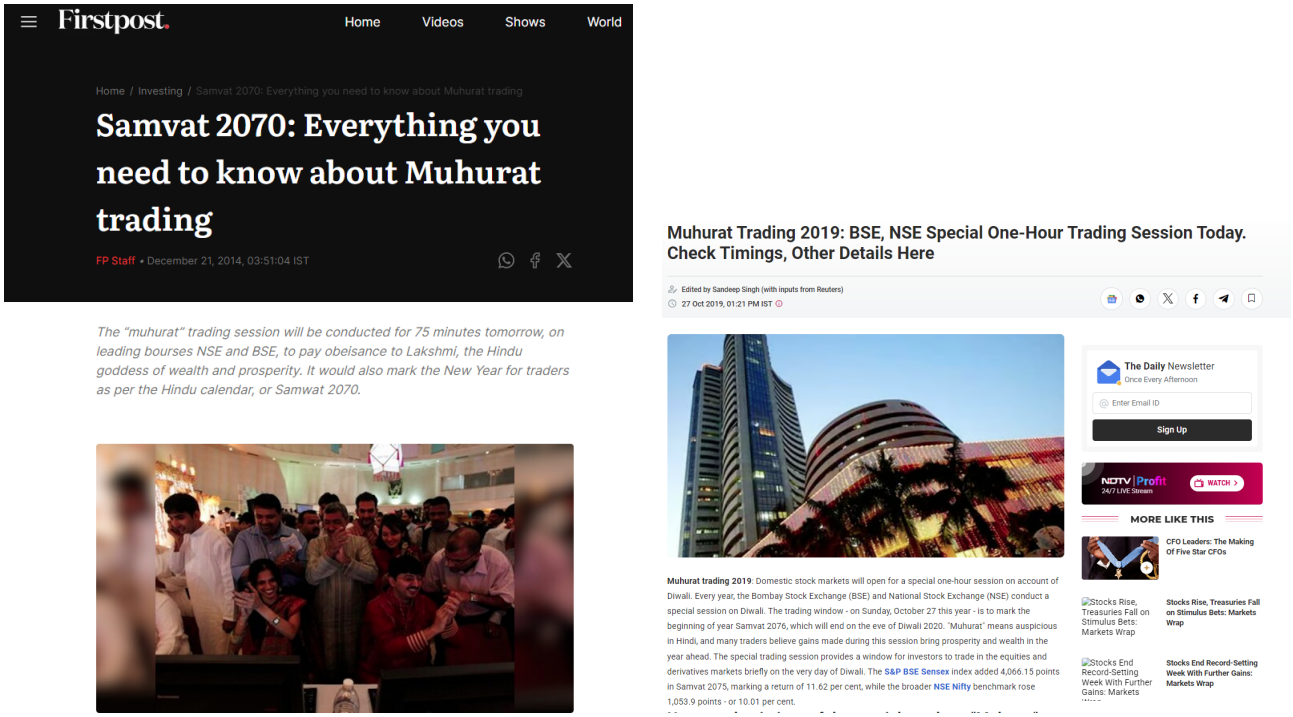



**Figure IAB2: Newspaper References to Muhurat Trading.** This figure presents examples of newspapers articles announcing Muhurat Trading. These articles are available at https://www.firstpost.com/investing/samvat-2070-everything-you-need-to-know-about-muhurat-trading-1207861.html and https://www.ndtvprofit.com/business/muhurat-trading-timings-2019-diwali-bse-nse-to-conduct-special-muhurat-trading-today-diwali-2019-2123294.

The particular broker for which we have data for also sends emails to clients indicating the date and time of Muhurat trading, while referencing the religious significance of the event. Figure IAB3 is an example of an email sent by the broker to advertise the 2024 Muhurat trading session.

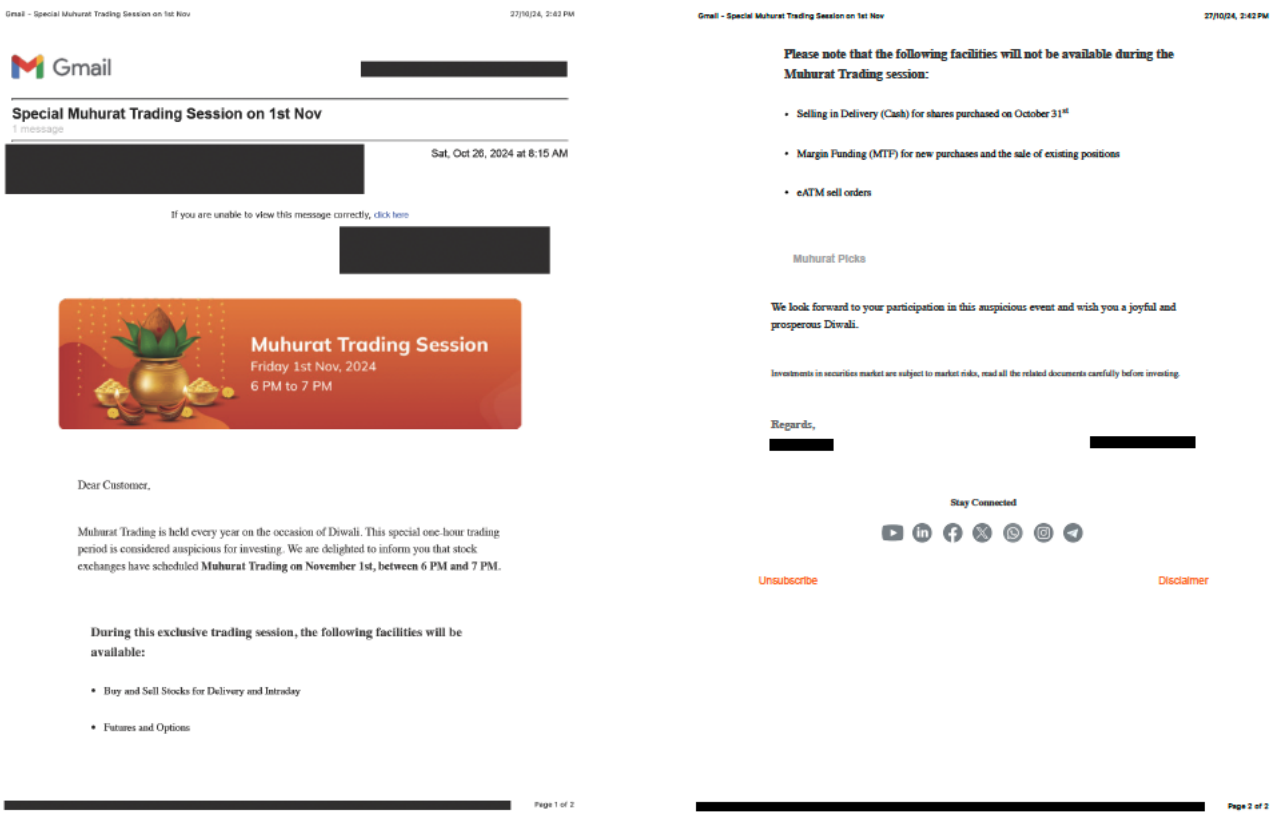



**Figure IAB3: Muhurat Trading Announcement Email.** This figure presents an example of an email sent out by the broker for which we have individual retail trading data to clients for the 2024 Muhurat trading session.

Interest in the term "Muhurat Trading" in online searches also peaks during the month of Diwali when the special trading session takes place. Figure IAB4 plots the search interest in "Muhurat Trading" over our sample period, with the vertical dashed lines representing the month of Diwali and the trading sessions.

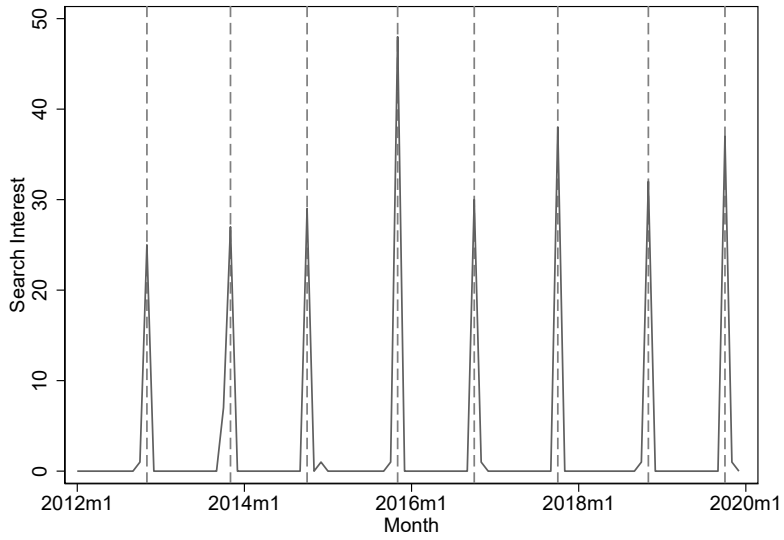



**Figure IAB4: Google Trends Search Interest for "Muhurat Trading."** This figure plots the time series of Google Trends search interest for the term "Muhurat Trading" from 2012 to 2019 in India nationally. The vertical dashed lines represent the month of the Muhurat trading session each year.

**Table IAB1:** Festivals, Religion, and Cultural Significance

| SI No | Festivals | Religion | Cultural Significance |
|---|---|---|---|
| 1 | Diwali | Hindu, Jain | Celebrates the victory of light over darkness and good over evil, associated with the return of Lord Rama to Ayodhya. |
| 2 | Holi | Hindu | Festival of colors, celebrating the arrival of spring and the triumph of good over evil. |
| 3 | Navaratri | Hindu | A nine-day festival honoring the goddess Durga and symbolizing the triumph of good over evil. |
| 4 | Onam | Hindu | Harvest festival celebrated in Kerala, marking the return of the legendary King Mahabali. |
| 5 | Ganesh Chaturthi | Hindu | Celebration of the birth of Lord Ganesha, the remover of obstacles. |
| 6 | Ram Navami | Hindu | Marks the birth of Lord Rama, the seventh avatar of Vishnu. |
| 7 | Janmashtami | Hindu | Celebrates the birth of Lord Krishna, the eighth avatar of Vishnu. |
| 8 | Dussehra | Hindu | Commemorates the victory of Lord Rama over the demon king Ravana. |
| 9 | Mahavir Jayanti | Jain | Celebrates the birth of Lord Mahavira, the 24th Tirthankara in Jainism. |
| 10 | Vaisakhi | Sikh | Harvest festival and also marks the Sikh New Year and the formation of the Khalsa. |
| 11 | Guru Gobind Singh Sahib | Sikh | Observes the birth anniversary of Guru Gobind Singh, the tenth Sikh Guru. |
| 12 | Bandi Chhor Divas | Sikh | Celebrates the release of Guru Hargobind and his followers from imprisonment. |
| 13 | Guru Nanak Gurpurab | Sikh | Celebrates the birth of Guru Nanak, the founder of Sikhism. |
| 14 | Ramadan | Muslim | Holy month of fasting, prayer, and reflection, culminating in Eid al-Fitr. |
| 15 | Eid al-Fitr | Muslim | Festival marking the end of Ramadan, with feasts and celebrations. |
| 16 | Muharram | Muslim | Observance of the Islamic New Year and a period of mourning for the martyrdom of Imam Hussain. |
| 17 | Christmas | Christian | Celebrates the birth of Jesus Christ. |
| 18 | Good Friday | Christian | Observes the crucifixion of Jesus Christ, leading to Easter celebrations. |
| 19 | Republic Day | Holiday | Marks the day India became a republic with the adoption of its constitution on January 26. |
| 20 | Independence Day | Holiday | Celebrates India's independence from British rule on August 15. |
| 21 | Gandhi Jayanti | Holiday | Observes the birth of Mahatma Gandhi, the leader of India's independence movement. |

# C Stock Market Participation

## C.1 Brokerage Account Opening

In this appendix, we extend our analysis by studying decisions of individuals to open a brokerage account. To do so, we aggregate the number of accounts opened by individuals in our brokerage dataset across treated and non-treated groups and region. Specifically, we estimate:

$$naccounts_{imst} = \exp\left\{\beta_0 + \beta_1 Event_t + \beta_2 (Treated_i \times Event_t) + \gamma_{ims} + \varepsilon_{imst}\right\}, \tag{C.1}$$

where $naccounts_{ismt}$ is the number of brokerage accounts opened by individuals of treated group $i$ on date $t$ in state $s$ and month-of-year $m$. Given the count nature of our dependent variable, we estimate a Poisson specification and control for treated $\times$ state $\times$ month-of-year fixed effects, allowing us to rule out concerns about differences in region-specific seasonality in account opening across treated and control groups. We cluster standard errors at the state-level (Bertrand, Duflo, and Mullainathan, 2004; Roberts and Whited, 2013; Abadie, Athey, Imbens, and Wooldridge, 2023).

Figure IAC1 presents the estimated coefficients $\beta_1$ and $\beta_2$, labeled as "Event" and "Event $\times$ Treated", respectively. Note that the base effect on "Treated" is subsumed by the fixed effects, and hence not displayed. The figure shows that individuals in the control group are not significantly more likely to opening an account in the month of Diwali, with $\beta_1$ close to zero and statistically insignificant. The coefficient $\beta_2$, is positive and statistically different from zero, indicating that number of accounts opened are larger for individuals from the treated group relative to control group, controlling for seasonality and trends across groups. The coefficient estimate suggests that treated group opens 1.14 ($e^{0.133}$) accounts more in the month of Diwali compared to control group. Relative to the average of 1.43 new accounts opening on a daily basis, the estimate suggests a doubling in account opening. While the effect size is modest, this finding supports the hypothesis that treated individuals tend to open accounts with the intention of trading on Diwali. We formally test this in the subsequent section.

## C.2 Likelihood to Trade for the First Time on Diwali

To assess whether treated individuals open their accounts with the intention of trading specifically on Muhurat trading day, we examine the likelihood of first-time trading occurring on Diwali. For each individual, we record the account opening date and the first observed trade date. We construct an individual-day dataset including the days between these two events. Using a hazard model, we estimate the probability of trading for the first time on Diwali, conditional on not having traded prior to that day.

The hazard model we estimate takes the form:

$$h_i(t) = h_0(t) \exp\left\{\beta_0 + \beta_1 Event_t + \beta_2 Treated_i + \beta_3 Event_t \times Treated_i + \epsilon_{i,t}\right\}, \tag{C.2}$$

where observations occur at the account ($i$) and date ($t$) levels. The variable $h_i(t)$ represents individual $i$'s probability of trading on date $t$, conditional on not having traded before. $h_0(t)$ is the baseline hazard. The variable $Event_t$ is a dummy

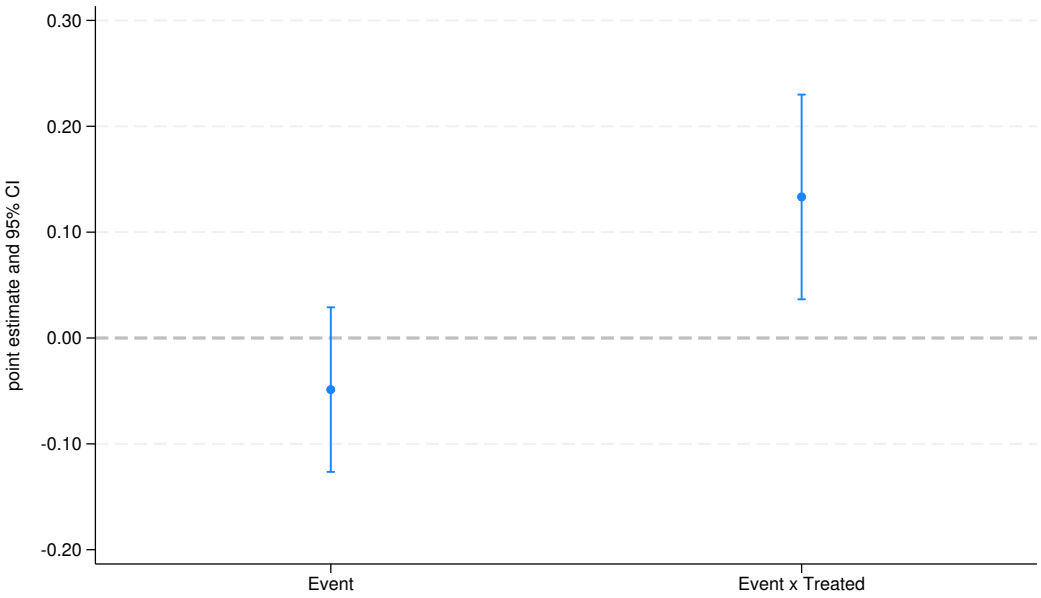



**Figure IAC1: New brokerage account openings around Diwali events.** This figure plots the estimates $\beta_1$ ("Event") and $\beta_2$ ("Event $\times$ Treated") of a $naccounts_{imst} = \exp\{\beta_0 + \beta_1 Event_t + \beta_2(Treated_i \times Event_t) + \gamma_{ims} + \varepsilon_{imst}\}$, where $naccounts_{ismt}$ is the number of brokerage accounts opened by individuals of treated group $i$ on date $t$ in state $s$ and month-of-year $m$. Given the count nature of our dependent variable, we estimate a Poisson specification and control for treated $\times$ state $\times$ month-of-year fixed effects, allowing us to rule out concerns about differences in region-specific seasonality in account opening across treated and control groups.

equal to 1 if date $t$ corresponds to the Diwali' Muhurat trading day, and $Treated_i$ is a dummy indicating whether individual $i$ is inferred to be Hindu.

With this structure, the hazard ratio, $exp(\beta_1)$, measures the ratio of the probability of trading for the first time on Diwali versus the probability of trading for the first time on another day. Our main coefficient of interest in Equation (C.2) is $\beta_3$, the coefficient on the interaction term. This coefficient measures the difference in the (log) hazard ratio between treated and control individuals for trading on Diwali. More specifically, $e^{\beta_3}$ represents the relative change in the hazard (or likelihood) of trading for the first time on Diwali for treated individuals compared to control individuals. Standard errors are clustered at the date level.[31]

Figure IAC2 presents the estimated coefficients $\beta_1$, $\beta_2$ and $\beta_3$, labeled as "Event," "Treated" and "Event $\times$ Treated" respectively. The results show that control individuals are not significantly more likely to trade for the first time on Diwali, with $\beta_1$ close to zero and statistically insignificant. The coefficient $\beta_2$, while small in magnitude, is significantly negative, indicating that treated individuals are 7% less likely to trade for the first time on any given day than controls (the hazard ratio is equal to 0.93 = $e^{-0.07}$). However, our main coefficient of interest $\beta_3$ is positive and statistically significant, with a magnitude of approximately 0.5. This indicates that the hazard (or likelihood) of treated individuals trading for the first time on Diwali is 1.65 (= $e^{0.5}$) higher than for control individuals. This implies that treated individuals are 65% more likely to trade for the first time on Diwali compared to controls. This finding supports the hypothesis that treated individuals tend to open accounts with the intention of trading on Diwali.

[31]The hazard model does not allow to cluster standard errors across multiple dimensions. We choose to cluster by day (rather than by investor) to adopt a conservative approach, as the number of trading days in our sample is smaller than the number of investors.

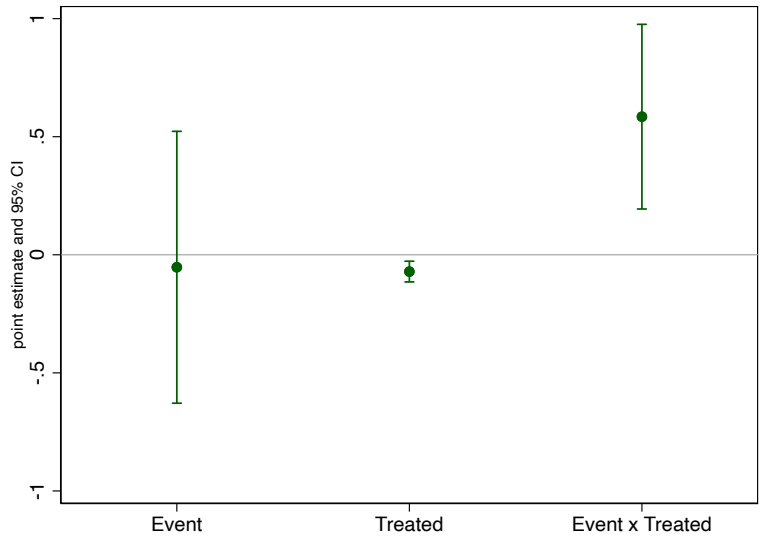



**Figure IAC2: Likelihood to trade for the first time on Diwali event.** This figure plots the estimates $\beta_1$ ("Event"), $\beta_2$ ("Treated") and $\beta_3$ ("Event $\times$ Treated") of a Cox hazard model of the form $h_i(t) = h_0(t) \exp\{\beta_0 + \beta_1 Event_t + \beta_2 Treated_i + \beta_3\{Event_t \times Treated_i\} + \epsilon_{i,t}\}$, where observations are at the account ($i$) and date ($t$) level, between the account opening date and the first trade date. For every account-day, $h_i(t)$ is investor $i$'s probability of trading for the first time on date $t$ conditional on not having traded prior to date $t$, and $h_0(t)$ is the baseline hazard. $Event$ is a dummy equal to 1 if the day corresponds to the Diwali's Muhurat trading day, and $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. Horizontal bars correspond to 95% confidence intervals. Standard errors are clustered at the date level.

## C.3 Characteristics of Stocks Purchased on the Event

In this Appendix, we further analyze the characteristics of stocks purchased by treated individuals (Hindus) on the event day.

**Stock Characteristics.** For each event-day in our sample (eight trading days), we build a dataset at the individual-stock-date level. We include all treated investors and the full set of stocks traded on these days. For a given treated individual on an event-day, the dataset includes both the stocks the individual holds and those they do not. We then estimate the following empirical specification:

$$Buy_{i,j,t} = \beta_h \cdot HighCharacteristic_{j,t-1} + \beta_l \cdot LowCharacteristic_{j,t-1} + \gamma_{i,t} + \epsilon_{i,j,t}, \tag{C.3}$$

where $i$, $j$, and $t$ denote individual, stock, and date, respectively. The dependent variable, $Buy_{i,j,t}$, is a variable equal to 10,000 if individual $i$ buys stock $j$ on date $t$, and 0 otherwise (i.e., it is expressed in basis points). The independent variables, $HighCharacteristic_{j,t-1}$ and $LowCharacteristic_{j,t-1}$, are dummies indicating whether a stock falls in the top or bottom quintile (i.e., top or bottom 20%) of the distribution for a given characteristic on day $t-1$, i.e., the last trading day before the event date $t$. The omitted baseline category comprises of stocks in the middle 60% of the distribution. In our results, we also report the $p$-value of a $t$-test comparing the coefficients on the top ($\beta_h$) and bottom ($\beta_l$) quintile dummies. The regression includes individual $\times$ date fixed effects ($\gamma_{i,t}$) to control for unobservable individual-specific factors that vary over time and focus on the relative attractiveness of stock characteristics for buying within each individual-day.[32] Standard errors are double-clustered at the individual and stock levels.

In Panel A of Table IAC1, we examine the following stock characteristics: market capitalization, book-to-market ratio, firm age, earnings per share (EPS), and past-year returns (all computed as described in Section 6.3 of the main text). The results in column (1) show that treated individuals are significantly more likely to purchase large-cap stocks with the coefficient on the high market capitalization dummy being approximately 2 basis points (b.p.). This represents a more than 300% increase compared to the mean of the dependent variable (0.64 b.p.). Conversely, treated individuals are significantly less likely to buy small-cap stocks with a smaller effect size of -0.13 b.p.

Column (2) indicates a preference for growth-oriented stocks, as treated individuals are more likely to purchase low book-to-market stocks (0.73 b.p.) and are less likely to purchase value stocks (-0.88 b.p.). Column (3) reveals a clear preference for "old firms" (1.2 b.p.) while Columns (4) and (5) reveal a preference for stocks with high earnings per share (0.7 b.p.). In Column (6), when we include all the characteristics simultaneously, we find that large market capitalization is the dominant characteristic favored by treated individuals, with a coefficient of 2 basis points (b.p.). Preference for stocks of older firms and stocks with high (and low) past-year returns, persist but are smaller in magnitude.

Overall, these findings suggest that on event days, treated individuals primarily purchase stocks of well-established companies, characterized by high market capitalization and, to a lesser extent, high earnings per share (EPS). This investment

[32] Stock fixed effects are not included as the stock characteristics analyzed here are relatively persistent and our sample includes only eight trading sessions.

behavior aligns with the event's emphasis on long-term wealth and prosperity.

In Table IAC2, we extend the analysis to include additional stock characteristics motivated by Balasubramaniam et al. (2023), who document their strong influence on stock holding behavior in India. Specifically, we examine whether stocks paid dividends in the past year, have high (vs. low) average turnover over the past year, and exhibit high (vs. low) market beta, computed using the Indian Fama-French factors based on daily returns over the past year. The results indicate that treated individuals are significantly more likely to purchase stocks that pay dividends and are highly liquid (high turnover), confirming the findings above on the preference for large companies with strong fundamentals among treated investors on event days.

**Lottery-like Characteristics.** Next, we investigate whether treated individuals purchase stocks with lottery-like characteristics. We estimate the same regression specification as in Equation (C.3), focusing on the following stock attributes: share price on the day before the event and three measures of skewness: conventional skewness, hte Pearson's skewness coefficient, the up-to-down volatility (all computed as described in Section 6.3 of the main text). Additionally, we include conventional return volatility, computed over the year preceding the event. The variables $HighCharacteristic_{j,t-1}$ and $LowCharacteristic_{j,t-1}$ are defined as in the previous analysis. Standard errors are double-clustered at the individual and stock levels.

Panel B of Table IAC1 presents the results. Column (1) shows that treated individuals are significantly more likely to purchase stocks in the top quintile for share price while they are less likely to buy low-priced stocks. Moreover, Column (2) shows that they exhibit a significant aversion to stocks with high past-year return skewness and Pearson skewness. In contrast, they are more likely to purchase stocks with low skewness. Column (4) also shows a mild aversion to stocks with high up-to-down volatility while Column (5) shows that treated individuals exhibit a clear preference for low-volatility stocks. In Column (6), when we include all independent variables, we find that the preferences for low-skewness and low-volatility stocks persist, together with a significant aversion to stocks with a low share price. Overall, these findings suggest that treated individuals do not favor lottery-like stocks on event days. Instead, their stock selection appears tilted towards low-skewness and low-volatility characteristics, inconsistent with speculative and gambling behavior.

**Table IAC1: Characteristics of stocks purchased on Diwali day**

Regressions are estimated at the individual-stock-date level. For each Muhurat trading day in our sample period, we include treated investors (Hindus) and all stocks in our dataset. The dependent variable is a dummy equal to 10,000 if the individual buys the stock on that day, and 0 otherwise. In Panel A, the independent variables are dummies indicating whether a stock is, on that day, in the top ("High") or bottom ("Low") quintile based on market capitalization (column (1)), book-to-market ratio (column (2)), earnings per share (column (3)), or past-year return (column (4)). Column (5) includes all these variables simultaneously. In Panel B, the independent variables are dummies for whether a stock is in the top or bottom quintile based on share price (column (1)), past-year skewness (column (2)), past-year Pearson skewness coefficient (column (3)), or past-year up-to-down volatility (column (4)). Column (5) includes all these variables simultaneously. For both panels, p-values of t-tests comparing coefficients on "High" vs. "Low" dummies are reported. All regressions include individual-date fixed effects, and standard errors (in parentheses) are double-clustered at the individual and stock levels. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Stock Characteristics**

| | Buy (bps) | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| High Mkt Cap | 2.012*** | | | | | 1.962*** |
| | (0.248) | | | | | (0.270) |
| Low Mkt Cap | -0.128*** | | | | | -0.193* |
| | (0.012) | | | | | (0.099) |
| High B/M | | -0.877*** | | | | -0.210** |
| | | (0.170) | | | | (0.105) |
| Low B/M | | 0.730** | | | | 0.447 |
| | | (0.286) | | | | (0.285) |
| High Firm Age | | | 1.202*** | | | 0.874* |
| | | | (0.453) | | | (0.509) |
| Low Firm Age | | | 0.097 | | | -0.177 |
| | | | (0.177) | | | (0.188) |
| High EPS | | | | 0.704** | | -0.001 |
| | | | | (0.280) | | (0.340) |
| Low EPS | | | | -0.324** | | -0.026 |
| | | | | (0.128) | | (0.147) |
| High Return | | | | | 0.150* | 0.421** |
| | | | | | (0.088) | (0.187) |
| Low Return | | | | | -0.144* | 0.377** |
| | | | | | (0.082) | (0.152) |
| Individual × Date FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 64451478 | 29697371 | 38286959 | 37755688 | 62486079 | 29366207 |
| $R^2$ | 0.002 | 0.003 | 0.002 | 0.002 | 0.001 | 0.003 |
| High = Low (*p*-value) | 0.000 | 0.000 | 0.017 | 0.000 | 0.004 | |

*(Continued from previous page)*

**Panel B: Lottery-like Characteristics**

| | Buy (bps) | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| High Share Price | 0.688*** | | | | | 0.264 |
| | (0.162) | | | | | (0.175) |
| Low Share Price | -0.436*** | | | | | -0.395*** |
| | (0.077) | | | | | (0.081) |
| High Skewness | | -0.221*** | | | | -0.106 |
| | | (0.076) | | | | (0.071) |
| Low Skewness | | 0.716*** | | | | 0.478*** |
| | | (0.164) | | | | (0.118) |
| High Pearson Skewness | | | -0.205*** | | | -0.010 |
| | | | (0.059) | | | (0.048) |
| Low Pearson Skewness | | | 0.643*** | | | 0.468** |
| | | | (0.206) | | | (0.203) |
| High Up-to-Down Volatility | | | | -0.144** | | 0.103 |
| | | | | (0.071) | | (0.068) |
| Low Up-to-Down Volatility | | | | 0.527*** | | 0.133 |
| | | | | (0.155) | | (0.117) |
| High Volatility | | | | | -0.050 | -0.043 |
| | | | | | (0.064) | (0.068) |
| Low Volatility | | | | | 1.203*** | 0.999*** |
| | | | | | (0.235) | (0.242) |
| Individual × Date FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 64500399 | 62431074 | 62431074 | 62331150 | 62486079 | 62331150 |
| $R^2$ | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.002 |
| High = Low ($p$-value) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |

**Table IAC2: Additional characteristics of stocks purchased on Diwali day**

Regressions are estimated at the individual-stock-date level. For each Muhurat trading day in our sample period, we include treated investors (Hindus) and all stocks in our dataset. The dependent variable is a dummy equal to 10,000 if the individual buys the stock on that day, and 0 otherwise. The independent variables are dummies indicating whether a stock is, on that day, in the top ("High") or bottom ("Low") quintile based on firm age, i.e., the number of years since listing (column (1)), whether the stock paid a dividend in the past year (column (2)), average turnover over the past year (column (3)), market beta (column (4)), or past-year volatility (column (5)). Column (6) includes all these variables simultaneously. p-values of t-tests comparing coefficients on "High" vs. "Low" dummies are reported. All regressions include individual-date fixed effects, and standard errors (in parentheses) are double-clustered at the individual and stock levels. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

| | Buy (bps) | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Paid Dividend | 0.946*** | | | 0.774*** |
| | (0.180) | | | (0.184) |
| High Turnover | | 0.717*** | | 0.549** |
| | | (0.147) | | (0.224) |
| Low Turnover | | -0.475*** | | -0.360*** |
| | | (0.082) | | (0.092) |
| High Beta | | | 0.256*** | 0.179 |
| | | | (0.085) | (0.127) |
| Low Beta | | | -0.432*** | -0.099 |
| | | | (0.095) | (0.239) |
| Individual × Date FE | Yes | Yes | Yes | Yes |
| Observations | 38305868 | 64451478 | 64454545 | 38243133 |
| $R^2$ | 0.002 | 0.001 | 0.001 | 0.002 |
| High = Low ($p$-value) | | 0.000 | 0.000 | |

# D Additional Figures and Tables

## D.1 Tables

**Table IAD1: List of Muhurat trading dates and timings**
This table lists the dates and timings of Muhurat trading session on account of Diwali covered in our sample. All trades executed in the trading session result in settlement obligations. They are available at Circulars.

| Year | Date | Timings |
|---|---|---|
| 2012 | November 13, 2012 | 15:30 to 17:20 |
| 2013 | November 3, 2013 | 18:00 to 19:50 |
| 2014 | October 23, 2014 | 18:15 to 19:50 |
| 2015 | November 11, 2015 | 17:30 to 19:05 |
| 2016 | October 30, 2016 | 18:15 to 19:50 |
| 2017 | October 19, 2017 | 18:15 to 19:50 |
| 2018 | November 7, 2018 | 17:00 to 18:50 |
| 2019 | October 27, 2019 | 17:45 to 19:40 |

**Table IAD2: National Stock Exchange Summary Statistics**

This table presents summary statistics of daily transactions aggregated at the stock-date level, on the National Stock Exchange over our sample period covering 2012 to 2019 for all retail trades.

| Variable | Obs | Mean | Sd | 5% | 25% | 50% | 75% | 95% |
|---|---|---|---|---|---|---|---|---|
| Buy | 2,816,089 | 619.06 | 2,129.21 | 3.00 | 23.00 | 86.00 | 371.00 | 2,913.00 |
| Sell | 2,816,089 | 584.49 | 2,067.89 | 3.00 | 22.00 | 78.00 | 333.00 | 2,781.00 |
| Amount Buy (₹1000s) | 2,816,089 | 54,150.56 | 263,175.37 | 8.42 | 312.07 | 2,619.61 | 17,243.68 | 244,377.64 |
| Amount Sell (₹1000s) | 2,816,089 | 54,738.50 | 267,882.73 | 8.94 | 321.60 | 2,712.23 | 17,473.94 | 247,097.69 |
| Retail imbalance | 2,816,089 | 0.03 | 0.25 | -0.36 | -0.11 | 0.02 | 0.17 | 0.42 |

**Table IAD3: Diwali trades and Hindu investor characteristics**

This table presents investor-date level summary statistics and t-tests of differences for Hindus who trade or do not trade on Diwali for investor characteristics. Characteristics include an indicator variable for male, the age as of the trading day, and income. Column (7) presents a t-test of the difference between the "No Trade" group and the "Any Trade" group, with the t-statistic in brackets. Column (8) refers to the buy vs. sell difference, conditional on any trade. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

| | No Trade *N=34,812* | | | Any Trade *N=1,094* | | | Mean Difference | Conditional Difference: Mean Difference - Buy vs. Sell |
|---|---|---|---|---|---|---|---|---|
| | Mean (1) | Sd (2) | Median (3) | Mean (4) | Sd (5) | Median (6) | (7) | (8) |
| Male | 0.72 | 0.45 | 1.00 | 0.71 | 0.46 | 1.00 | 0.01 | -0.04 |
| | | | | | | | [0.93] | [-0.96] |
| Age | 40.94 | 13.86 | 36.42 | 41.37 | 13.36 | 38.33 | -0.43 | 1.97 |
| | | | | | | | [-1.05] | [1.46] |
| Income | 9.29 | 12.18 | 3.00 | 8.89 | 11.65 | 3.00 | 0.40 | -0.69 |
| | | | | | | | [1.10] | [-0.57] |

**Table IAD4: Amount spend on buy and sell trades on Diwali day conditional on trading** Regressions are estimated at the individual-date level, restricting the sample to observations where trading occurs. In Columns (1) to (3) (resp. (4) to (6)), the dependent variable is the arcsinh of the amount spent on buy (resp. sell) trades by the individual on that day. $Event$ is a dummy equal to 1 if the day corresponds to the Diwali's Muhurat trading day, and $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

| | Amount Buy Trades | | | Amount Sell Trades | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Event Day × Treated | 0.583*** | 0.388** | 0.308* | -0.458*** | 0.070 | 0.193 |
| | (0.137) | (0.167) | (0.180) | (0.172) | (0.242) | (0.163) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | No | No | Yes | No | No |
| State × Date FE | No | Yes | No | No | Yes | No |
| District × Date FE | No | No | Yes | No | No | Yes |
| Observations | 484,500 | 484,500 | 484,500 | 484,500 | 484,500 | 484,500 |
| $R^2$ | 0.14 | 0.18 | 0.26 | 0.20 | 0.24 | 0.31 |

**Table IAD5: Likelihood to trade, buy and sell on other religious-event days**

Regressions are estimated at the individual-date level. In Panel A, in Columns (1) and (2), the dependent variable is a variable equal to 100 if the individual trades on that day, 0 otherwise; in Columns (3) and (4), it is a variable equal to 100 if the individual buys any stock on that day, 0 otherwise; in Columns (5) and (6), it is a variable equal to 100 if the individual sells any stock on that day, 0 otherwise. In Panel B, in Columns (1) and (2), the dependent variable is the arcsinh of the amount traded by the individual on that day; in Columns (3) and (4), it is the arcsinh of the amount spent on buy trades by the individual on that day; in Columns (5) and (6), it is the arcsinh of the amount spent on sell trades by the individual on that day. $Other\ Hindu\ Religious\ Event$ is a dummy equal to 1 if the day corresponds to an Hindu religious event except Diwali, and $Non\ Hindu\ Religious\ Event$ is a dummy equal to 1 if the day corresponds to religious event for non-Hindu religions. $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. $Affected\ Control$ is a dummy indicating whether the individual is inferred to be of the religion associated with $Non\ Hindu\ Religious\ Event$. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Likelihood to trade**

| | Trade × 100 | | Buy × 100 | | Sell × 100 | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Other Hindu Religious Event × Treated | -0.277* | -0.277* | -0.227 | -0.227 | -0.038 | -0.038 |
| | (0.163) | (0.163) | (0.149) | (0.149) | (0.087) | (0.087) |
| Non-Hindu Religious Event × Affected Control | | 0.012 | | -0.027 | | 0.002 |
| | | (0.225) | | (0.208) | | (0.111) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.12 | 0.12 | 0.10 | 0.10 | 0.08 | 0.08 |

**Panel B: Amount spent on trades**

| | Amount Traded | | Amount Buy Trades | | Amount Sell Trades | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Other Hindu Religious Event × Treated | -0.034* | -0.034* | -0.027 | -0.027 | -0.005 | -0.005 |
| | (0.019) | (0.019) | (0.017) | (0.017) | (0.011) | (0.011) |
| Non-Hindu Religious Event × Affected Control | | -0.004 | | -0.010 | | -0.000 |
| | | (0.026) | | (0.023) | | (0.013) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Date FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 | 6,090,768 |
| $R^2$ | 0.12 | 0.12 | 0.10 | 0.10 | 0.08 | 0.08 |

**Table IAD6: Stock Summary Statistics** This table lists the stock-date level summary statistics. Firm age corresponds to the number of years since listing. Skewness, Pearson Skewness, Up-to-down Volatility and Volatility are computed using daily data over the preceding year. Skewness is the third central moment of the return distribution divided by the standard deviation cubed. Pearson's skewness coefficient, is calculated as $3 \times (\text{Mean} - \text{Median})/\text{Standard Deviation}$. Up-to-down volatility, reflects the relative frequency and magnitude of positive versus negative daily returns, where higher values indicate greater relative volatility in negative returns compared to positive returns. Paid Dividend is a dummy equal to one if the stock paid dividend over the preceding year. Turnover is the fraction of shares outstanding traded on the day. Beta is the market beta computed using the Indian Fama French factor, using daily returns over the preceding year.

| Variable | Obs | Mean | Sd | 5% | 25% | 50% | 75% | 95% |
|---|---|---|---|---|---|---|---|---|
| Mkt Cap (₹mio) | 6445793 | 34,529.81 | 213094.77 | 33.44 | 196.20 | 947.76 | 6,438.62 | 115135.65 |
| Book-to-market (B/M) | 2270893 | 11.95 | 28.18 | 1.43 | 2.54 | 4.78 | 10.64 | 40.46 |
| Firm Age (Years) | 3136599 | 34.10 | 22.06 | 10.00 | 21.00 | 28.00 | 40.00 | 81.00 |
| Earnings-per-share (EPS) | 3112099 | 9.94 | 85.42 | -34.51 | -1.55 | 2.75 | 14.47 | 63.86 |
| Past-year Return (%) | 5266427 | 20.94 | 191.40 | -72.23 | -34.08 | -4.55 | 37.57 | 172.00 |
| Share Price (₹) | 6447262 | 246.60 | 1,271.53 | 1.60 | 12.27 | 42.72 | 157.70 | 906.83 |
| Skewness | 5263726 | 0.42 | 1.59 | -0.67 | 0.03 | 0.41 | 1.01 | 2.04 |
| Pearson Skewness | 5263726 | 0.15 | 0.35 | -0.28 | 0.00 | 0.15 | 0.31 | 0.55 |
| Up-to-down Volatility | 5228729 | 0.40 | 0.76 | -0.57 | 0.04 | 0.39 | 0.78 | 1.37 |
| Volatility | 5266295 | 0.04 | 0.18 | 0.02 | 0.03 | 0.03 | 0.04 | 0.06 |
| Paid Dividend | 3232424 | 0.64 | 0.48 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Turnover (bps) | 6445793 | 0.23 | 1.59 | 0.00 | 0.01 | 0.03 | 0.13 | 0.90 |
| Beta | 6430216 | 0.85 | 11.62 | -0.33 | 0.37 | 0.83 | 1.31 | 2.01 |

**Table IAD7: Disposition Effect**

Regressions are estimated at the individual-stock-date level. For each trading day in our sample period, we include the holdings of treated investors (Hindus). In both panels, the dependent variable is a variable equal to 100 if the individual sells (fully or partially) the stock on that day. Panel A uses the unconditional sample, i.e., including days when no trading occurs. Panel B restricts the sample to observations where the individual sells on that day. $Purchased\ on\ Event$ is a dummy equal to 1 if some shares of the stock were purchased for the first time on Muhurat trading day. If the stock is sold off and repurchased later, it is considered a new position and the dummy is reset to zero. $Gain$ is a dummy indicating whether the stock is trading at a paper gain relative to its weighted-average purchase price. Control variables include the logarithm of the weighted-average purchase price, the squared root of the number days the stock has been held, the return since purchase if the asset is in paper loss (gain) and zero otherwise, as well as their interactions with the squared root of the number days the stock has been held. Standard errors (in parentheses) are double-clustered at the individual and date level. ***, ** and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

**Panel A: Unconditional sample**

| | Sell × 100 | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Purchased on Event | -0.149*** | -0.202*** | -0.059 | -0.101** |
| | (0.054) | (0.069) | (0.042) | (0.049) |
| Gain | 0.639*** | 0.684*** | 0.683*** | 0.754*** |
| | (0.020) | (0.020) | (0.021) | (0.023) |
| Purchased on Event × Gain | -0.170*** | -0.148** | -0.206*** | -0.196*** |
| | (0.065) | (0.071) | (0.060) | (0.062) |
| Control Variables | No | Yes | No | Yes |
| Individual FE | Yes | Yes | No | No |
| Individual × Date FE | No | No | Yes | Yes |
| Stock × Date FE | Yes | Yes | Yes | Yes |
| Observations | 28,587,808 | 28,587,808 | 28,587,808 | 28,587,808 |
| $R^2$ | 0.073 | 0.074 | 0.296 | 0.296 |

**Panel B: Sale-conditioned sample**

| | Sell × 100 | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Purchased on Event | -1.322** | -1.455** | -1.144** | -1.368** |
| | (0.586) | (0.630) | (0.580) | (0.639) |
| Gain | 6.694*** | 7.044*** | 6.957*** | 7.185*** |
| | (0.231) | (0.246) | (0.253) | (0.266) |
| Purchased on Event × Gain | -0.767 | -0.745 | -0.812 | -0.811 |
| | (0.886) | (0.889) | (0.970) | (0.956) |
| Control Variables | No | Yes | No | Yes |
| Individual FE | Yes | Yes | No | No |
| Individual × Date FE | No | No | Yes | Yes |
| Stock × Date FE | Yes | Yes | Yes | Yes |
| Observations | 2,122,229 | 2,122,229 | 2,122,229 | 2,122,229 |
| $R^2$ | 0.326 | 0.327 | 0.400 | 0.401 |

## D.2 Figures

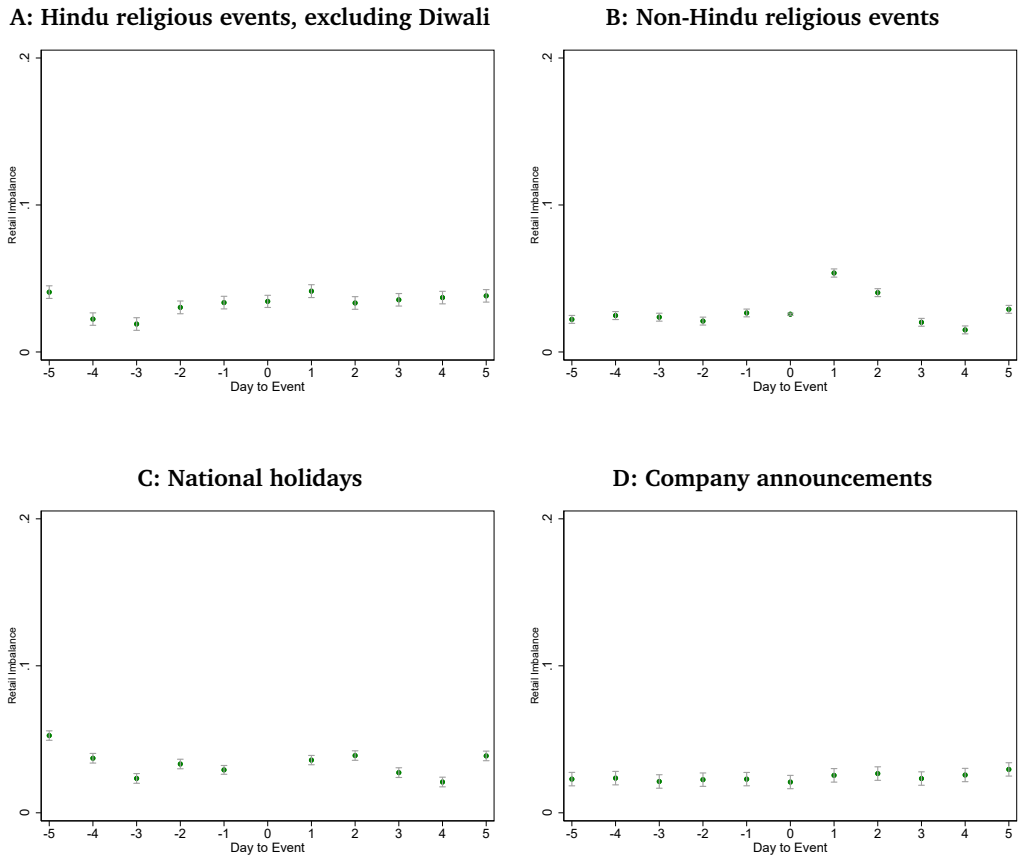
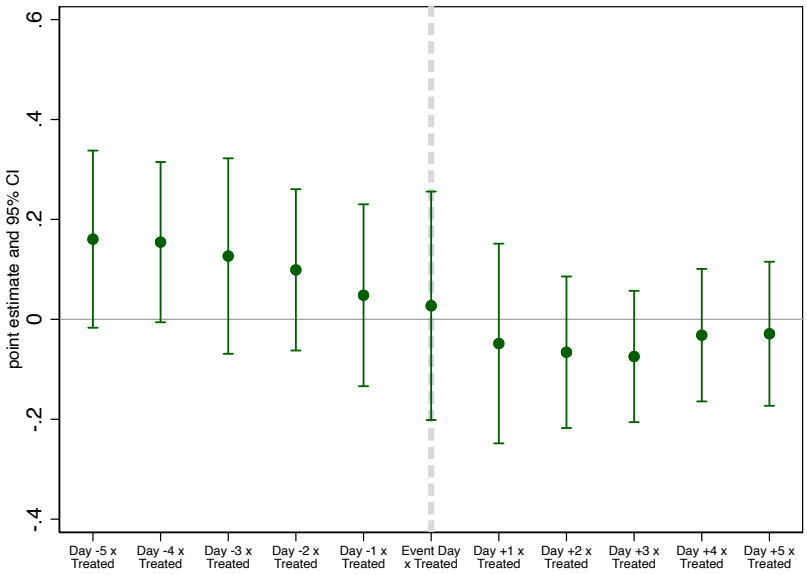



**Figure IAD1: Aggregate retail imbalance around other events.** This figure plots the retail imbalance mean with 95% confidence intervals around the 5 days before and after a particular event for stocks trading on the National Stock Exchange (NSE). Retail imbalance is computed as $\frac{(buy+sell)}{buy-sell}$, where *buy* and *sell* are the number of buy and sell trades, respectively. The event date refers to Hindu national religious events excluding Diwali, non-Hindu religious events, national holidays and firm announcement dates in Panels A-D, respectively.

**Panel A: Checking Account Balance**




**Panel B: Credit-Debit Net Amount**

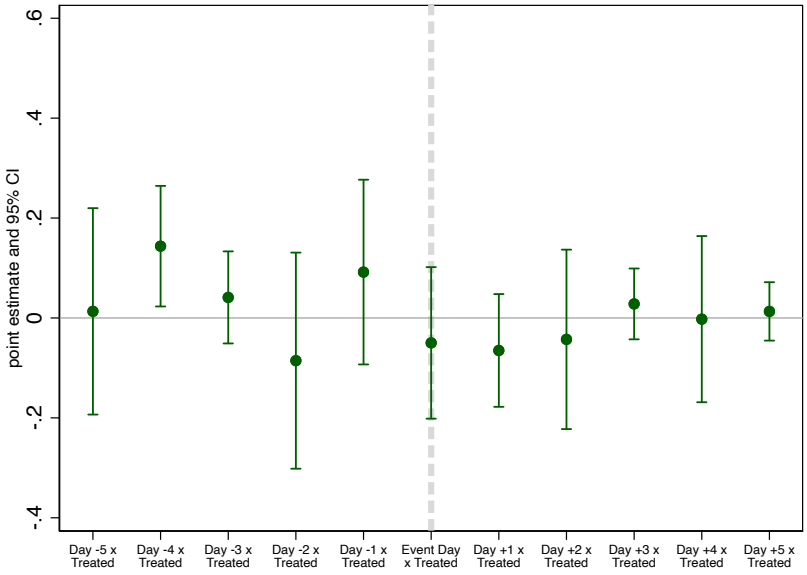
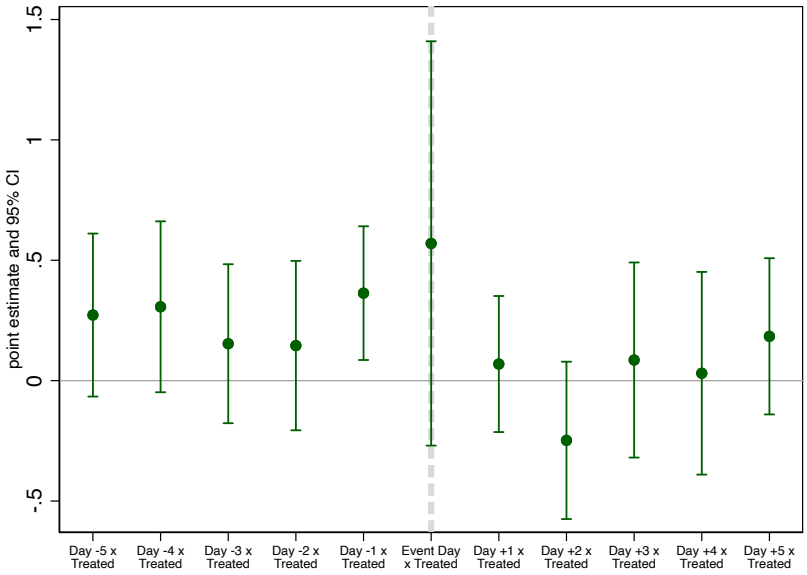



**Figure IAD2: Dynamics of account balance and credit-debit net amount.** This figure plots the coefficients $\beta_k$ on each day in equation: $Y_{i,t} = \sum_{k=-5}^{5} \beta_k \{Treated_i \times Day(k)_t\} + \alpha_i + \gamma_t + \epsilon_{i,t}$, where $i$ and $t$ denote the individual and date, and $Day(k)_t$ is a dummy equal to one if date $t$ corresponds to $k$ days before/after a Diwali day. $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. $\alpha_i$ and $\gamma_t$ denote individual and date fixed effects respectively. The dependent variable is the arcsinh of the individual's checking account balance in Panel A, and the arcsinh of the difference between credit and debit amounts in Panel B. Horizontal bars correspond to 95% confidence intervals. Standard errors are double-clustered at the investor and date levels.

**Panel A: Likelihood of an ATM Transaction**




**Panel B: ATM Transaction Amount**

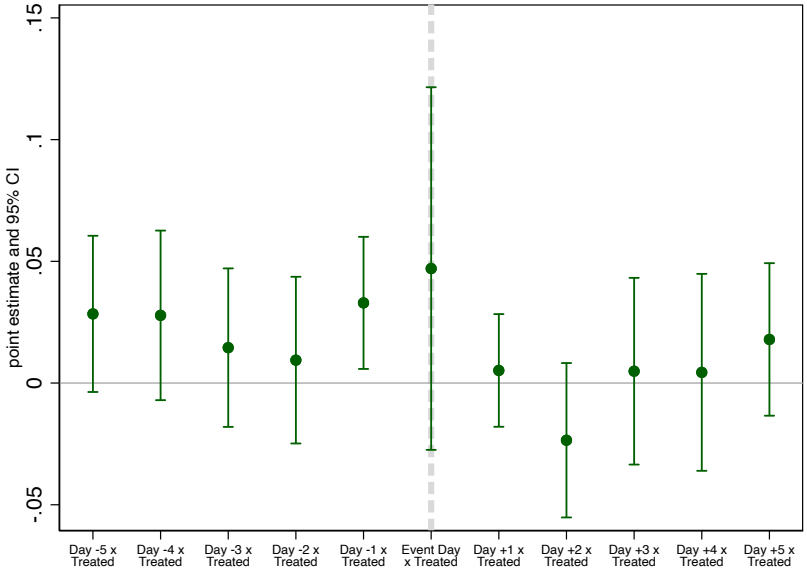
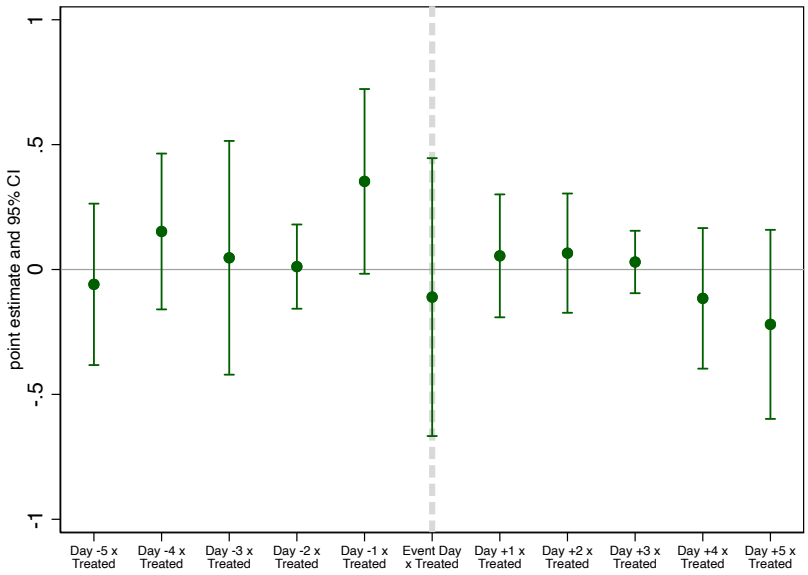



**Figure IAD3: Dynamics of ATM transactions.** This figure plots the coefficients $\beta_k$ on each day in equation: $Y_{i,t} = \sum_{k=-5}^{5} \beta_k \{Treated_i \times Day(k)_t\} + \alpha_i + \gamma_t + \epsilon_{i,t}$, where $i$ and $t$ denote the individual and date, and $Day(k)_t$ is a dummy equal to one if date $t$ corresponds to $k$ days before/after a Diwali day. $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. $\alpha_i$ and $\gamma_t$ denote individual and date fixed effects respectively. The dependent variable is a dummy equal to one if we observe an ATM withdrawal on the individual's account on tha day, and is the arcsinh of the individual's ATM transaction amount in Panel B. Horizontal bars correspond to 95% confidence intervals. Standard errors are double-clustered at the investor and date levels.

**Panel A: Likelihood of a Credit Card Transaction**




**Panel B: Credit Card Transaction Amount**

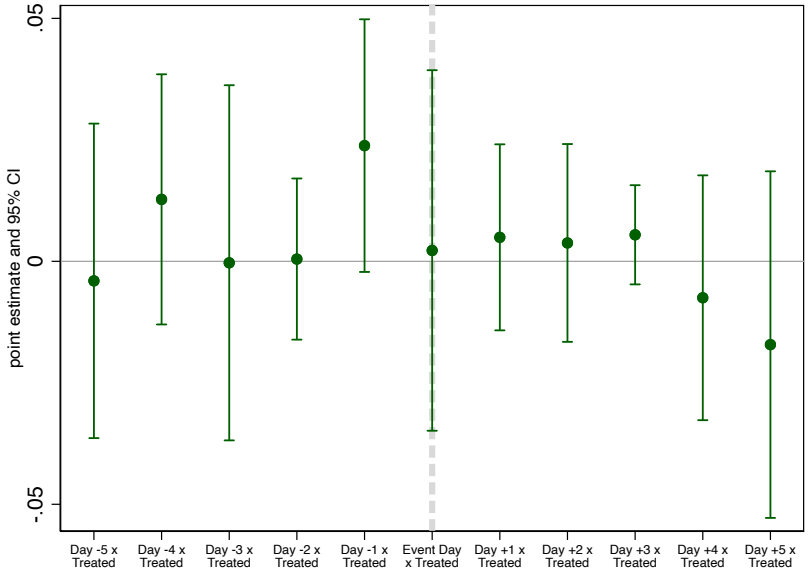



**Figure IAD4: Dynamics of credit card transactions.** This figure plots the coefficients $\beta_k$ on each day in equation: $Y_{i,t} = \sum_{k=-5}^{5} \beta_k \{Treated_i \times Day(k)_t\} + \alpha_i + \gamma_t + \epsilon_{i,t}$, where $i$ and $t$ denote the individual and date, and $Day(k)_t$ is a dummy equal to one if date $t$ corresponds to $k$ days before/after a Diwali day. $Treated$ is a dummy indicating whether the individual is inferred to be Hindu. $\alpha_i$ and $\gamma_t$ denote individual and date fixed effects respectively. The dependent variable is a dummy equal to one if we observe a credit card transaction on the individual's account on that day in Panel A, and is the arcsinh of the individual's credit card transaction amount in Panel B. Horizontal bars correspond to 95% confidence intervals. Standard errors are double-clustered at the investor and date levels.

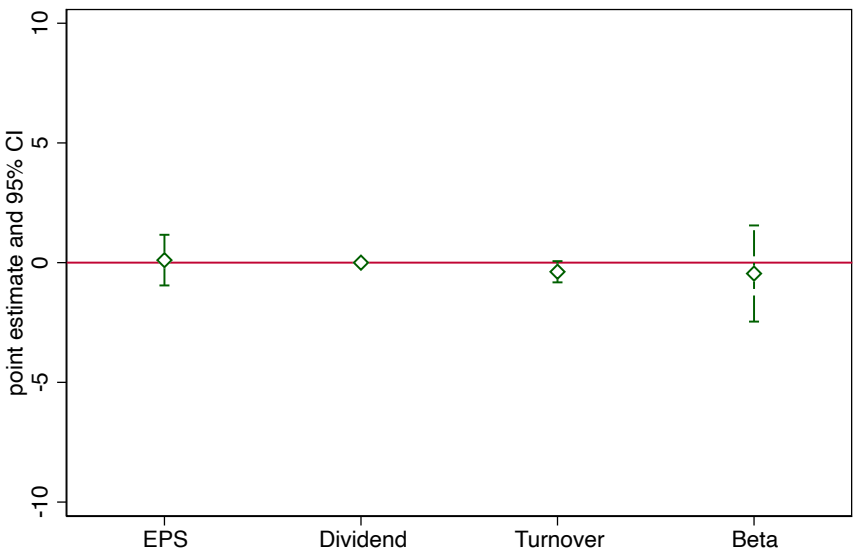



**Figure IAD5: Other characteristics of stocks purchased on event days vs. other days.** This figure plots the estimated coefficients $\beta$ from equation (8), which measures the change in the average percentile rank of stock characteristics on event days relative to other buy-days for treated individuals (Hindus). The dependent variable is the average percentile rank of the stocks purchased by individual $i$ on day $t$, where the percentile is calculated daily based on the cross-sectional distribution of a given stock characteristic. The regression includes individual $\times$ year fixed effects. Standard errors are double-clustered at the individual and stock levels. Vertical lines represent 95% confidence intervals. The figure presents results for firm-level characteristics: earning-per-share, whether the firm paid dividend over the past year, turnover, and stock market beta.