Business and Politics (2024), **26**, 477–488
doi:10.1017/bap.2024.11

CAMBRIDGE UNIVERSITY PRESS

RESEARCH ARTICLE

Happy Holidays? Evidence from Chinese Stock Exchanges

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Abstract

There is a consensus in the finance literature that stock markets generally perform well ahead of holidays. However, I argue that this relationship does not hold in the Chinese context, given that public holidays are associated with increased collective action and repression. I propose two possible mechanisms: (1) Chinese investors take cues from the political environment and will thus act more conservatively in the market prior to public holidays or (2) the government increases intervention to stabilize the stock market during these periods. I test this relationship using daily stock exchange data from Shanghai and Shenzhen. In addition, I corroborate the theoretical mechanism by testing whether there is similar conservatism before focal points on the dissident calendar. This research note contributes to our understanding of the Chinese investment market and raises general questions about the representativeness of the finance literature. In addition, this research speaks to the costs of authoritarianism and preserving social stability in these contexts.

Keywords: Chinese stock exchanges; protest; dissident calendar; collective action; investment

Introduction

There is substantial evidence that the stock market performs well ahead of holidays in Western contexts. One study found that "the average pre-holiday return of 0.365 percent dwarfs the average regular-day return of 0.026 percent."[1] These effects are unique to public holidays on which the stock market closes (e.g. the effects are not observed on St. Patrick's Day in the U.S.).[2] Although the market is often assumed to be in equilibrium and should correct for these types of events, that does not seem to be the case with seasonality in the stock market. There are two primary explanations for this relationship. First, these effects are potentially a result of "increased market activity [due] to the sheer optimism and high spirits associated with upcoming holidays."[3] Second, prospect theory may offer insight into why traders are unable to fully correct for holiday effects, as "investors are loathe to admit mistakes, tend to 'frame' decisions, have finite mental capacity, and generally behave in rather human ways."[4] Therefore, the stock market, constituted by human beings, does not always operate purely efficiently.

These trends are purported to generalize across financial markets in the literature. Studies cite "international evidence" for these phenomena, though the majority of the statistical tests only investigate the question in Western and democratic contexts.[5] However, stock exchanges are no longer restricted only to these types of countries. Rather, they have been established in countries with very different governmental structures and cultural attributes. For example, the Tehran Stock Exchange was established in 1967 and the Saudi Stock Exchange was established in 2007. Some scholars have begun to explore whether these trends extend to newly created stock exchanges;[6] however, these studies merely provide statistical evidence of null results without explaining potential theoretical mechanisms.

[1]Jacobs and Levy (1988).
[2]Ibid.
[3]How holidays impact the financial markets (2018).
[4]Jacobs and Levy (1988).
[5]Gultekin and Gultekin (1983); Barone (1990).
[6]Sarma (2004). Chan, Khanthavit, and Thomas (1996). Yakob, Beal, and Delpachitra (2005).

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https://doi.org/10.1017/bap.2024.11 Published online by Cambridge University Press

This article will build upon the literature by providing a theoretical explanation for the effect of public holidays on the Chinese stock market, which differs sharply from what has been found in Western stock exchanges.

Illustrating the importance of emerging stock markets, China has opened three stock exchanges since 1990. These exchanges have been highly profitable, but also remarkably volatile. The Shanghai Stock Exchange (SSE) is now the "largest stock exchange in Asia and the third-largest in the world by market capitalization."[7] Opening around the same time, the Shenzhen Stock Exchange (SZSE) mainly attracts manufacturing and state-owned companies. Additionally, in 2021, Xi Jinping announced that a new stock exchange would be created in Beijing, focused on small and medium-sized enterprises.[8] Despite the CCP's market socialist orientation through the majority of its rule, stock market institutions took off among the population, with both large and small investors alike.[9] As massive financial institutions, understanding the manner in which the Chinese stock exchanges work and when returns may be depressed provides both practical and theoretical information. With the rise of globalization, changes in the Chinese stock exchange also have broader ramifications in the investment environment as financial decisions reverberate across the international community. In sum, even small changes in the market can have tremendous impacts on the large investment portfolios of the typical Chinese investor and the rest of the world.

In addition, with the rise of non-Western stock exchanges around the world, it is important to understand whether the literature can help explain financial trends worldwide, or if the selection effect of testing hypotheses on Western, democratic countries limits their generalizability. In this paper, I analyze one financial trend—positive returns before public holidays—in the context of Chinese stock exchanges. Do financial trends around public holidays in China abide by Western predictions?

I investigate this question using data from two of China's stock exchanges: Shanghai (SSE) and Shenzhen (SZSE). I find that the positive returns before public holidays do not travel to the context of China. Rather, holidays are associated with negative returns in the Chinese context.

This finding can be explained by the unique political environment surrounding holidays in the Chinese context. In contrast to the positive feelings associated with public holidays in the West, holidays in China trigger uncertainty and fear among elites. More specifically, these holidays (e.g. Qingming Festival, Mid-Autumn Festival) in China are associated with increased collective action and protest.[10] These increases are often attributed to citizens' increased free time during these periods, as they are not working on public holidays.[11] Anticipating these protests, the Chinese central government increases preemptive repression and censorship.[12] To corroborate this theoretical mechanism, I test whether stock returns are also depressed leading up to dates on the "dissident calendar" (e.g. the anniversary of Tiananmen Square), which are similarly associated with increased collective action and repression.[13] The depressed stock market returns around holidays during these times can be explained by two possible mechanisms: (1) investor conservatism in China's stock exchanges or (2) government intervention to prevent an eruption of social unrest during these time periods.

In addition to contributions to the finance literature, these findings outline an additional cost that authoritarian regimes face in preserving social stability. Whether the association is produced by investor behavior or direct government intervention in the market, periods of potential social unrest are associated with negative stock returns and subsequently limitations to the country's economy. There is extensive work that describes the expenses of maintaining systems of surveillance and fear to prevent social unrest and authoritarian transition. This paper broadens the costs of maintaining social stability to include an additional pathway: depressed stock markets around public holidays and the "dissident calendar."

[7]China's Stock Markets – An Introductory Guide for Foreign Investors (2021).
[8]Ibid.
[9]Hertz (1998).
[10]King, Pan, and Roberts (2017). Han and Shao (2021).
[11]King, Pan, and Roberts (2017).
[12]Ibid.
[13]Truex (2019).

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Furthermore, the case of China's depressed stock markets ahead of holidays draws attention to the inefficiencies associated with stock markets in authoritarian regimes. Despite the original intention of introducing stock markets to promote efficient capital allocation and economic growth,[14] there has been a continual return to "'rule by market', by which market mechanisms facilitate, rather than replace, state control."[15] When the government has significant control over the stock market, there are perverse incentives for citizens: investors believe that the authoritarian government will prevent massive losses and subsequent discontent, so they assume that their participation in the stock market will always be personally profitable.[16] In addition, the prices attributed by the stock market are largely meaningless in terms of the value of the company (or the like) given the extensive intervention that takes place. These considerations highlight the inefficiencies that are rife in the Chinese market, and other countries which intervene substantially in their stock markets.

This paper will proceed in four parts. First, I outline the distinctive nature of the Chinese stock exchanges. Second, I argue that concerns of increased collective action during Chinese public holidays sparks reactions from investors or the government leading to negative stock returns. Third, I test this theoretical argument on both public holidays and "focal events," defined by Truex (2019) as moments of increased collective action. Finally, I conclude with implications for theory and policy.

Chinese stock exchanges

The central government maintains careful control over the stock exchanges in China. Although often assumed to be a symbol of neoliberalism and capitalism, Chinese stock exchanges are fundamentally constituted by an authoritarian identity.[17] By maintaining a degree of control over the exchanges, these systems "help to sustain and facilitate China's existing socio-economic system."[18] When the exchange systems were created in the 1990s and early 2000s, they were explicitly focused on serving state ends and reforming state-owned enterprises (SOEs).[19] Therefore, the prices set by the Chinese government were "administrative, rather than market driven" to avoid speculation and massive unrest in the community of stock traders.[20]

However, Chinese stock exchanges have grown increasingly liberalized, with "hybrid forms of ownership, control, and regulatory governance."[21] As of 2000, the China Securities Regulatory Commission (CSRC) began to play a more passive role over which companies could be listed, while in the past they had had almost complete control.[22] Their previous efforts had demonstrated limited success in picking companies that spark interest from the investor community.[23] Additionally, it had become clear that despite the government's best efforts, they were unable to subsume the market and take full control. Rather, the market had "its own natural rules [that] . . . not even Deng Xiaoping could do much about."[24] With limited scope for control over the internal market, the State Council Securities Committee and the CSRC have largely concentrated their efforts on regulating overseas listings instead.[25] Despite these changes, the stock exchanges are still fundamentally connected to China's unique policy environment.[26] Traders purchase stocks by taking into account three factors: government policy, the popular mood, and the relation between supply and demand.[27] State regulation

[14]Rithmire and Chen (2021).
[15]Rithmire (2023).
[16]Ibid. Yasuda (2023).
[17]Petry (2020).
[18]Ibid.
[19]Li, Zheng, and Liu (2022).
[20]Hertz (1998).
[21]Li, Zheng, and Liu (2022).
[22]Walter and Howie (2006).
[23]Ibid.
[24]Ibid.
[25]Walter and Howie (2006).
[26]Li, Zheng, and Liu (2022).
[27]Yeung (2009). Howson (2015).

https://doi.org/10.1017/bap.2024.11 Published online by Cambridge University Press

and intervention over the stock market may have changed to some extent, but there have been recent examples of massive intervention in the market—particularly in the 2015 crisis.[28] In addition, the Chinese government remains highly paternalistic toward its investor base, viewing them as "irrational investors" and thus intervenes overtly to alter their decision-making in the market.[29] There has also been increasing concentration of investors into small, but powerful groups. Though some estimates boast of 66 million investors in the Chinese market, this is a large overestimate of those actually participating.[30]

Beyond the central government's control over the stock market, there are several other distinctive characteristics of the Chinese stock market. First, Chinese stock exchanges categorize shares into different categories, which determine which types of investors can purchase them. Legal person shares are reserved for institutions or other SOEs and were not able to be traded freely by ordinary citizens until 2005.[31] The 2005 reform encompassed both legal person shares and state shares; however, state-owned shares remain less liquid than other types. Individual shares, or A shares, are traded in the domestic market amongst Chinese investors.[32] These stocks were extremely popular with the domestic public when the exchange opened, with a lottery system to buy shares. Finally, B shares (or special renminbi stocks), can be purchased by foreign investors internationally.[33] This market is separate from those of A and legal person shares, and "prices on the B share market varied independently from movements on the domestic market."[34] These shares remained relatively unpopular with foreign investors, as they preferred instead to invest in "H shares and Red Chips," Chinese companies listed on the Hong Kong market.[35] There are also Chinese companies listed on foreign stock exchanges, most notably in New York. However, perhaps due to disagreements with U.S. securities regulators, some of these companies are de-listing internationally and will return to the Hong Kong stock market (e.g. Sinopec, China Life Insurance Company, Aluminum Corporation of China Limited, PetroChina, and Sinopec Shanghai Petrochemical).[36] These structural factors create disincentives for the extensive participation of foreign investors in the SSE and SZSE exchanges. Rather, these markets are primarily made up of wealthy investors from the domestic Chinese public.

Second, the stock market is fundamentally a social affair, particularly among the *sanhu* (dispersed players). Stock market decisions by small-scale investors were made in conjunction with the advice shared among crowd clusters, friends, informal clubs, adult education classes, and stock salons.[37] Citizens also used rumors to disentangle the "obscure and sometimes deliberately secret moves taken by various agencies responsible for the market."[38] Finally, Chinese citizens give special attention to the political environment when making investment decisions. For example, "virtually all of my *dahu* informants told me, generally, during our very first interviews, that one could not study economics in China without studying politics."[39] Therefore, market decisions are fundamentally constituted by the political terrain.

The argument

Collective action in China is particularly salient and frequent during public holidays. In contrast to the positive feelings of investors in Western stock markets around holidays, the political tension and unpredictability in these periods cause Chinese investors to act cautiously. In an information-poor

[28]Dang, Li, and Wang (2022).
[29]Yasuda (2023).
[30]Walter and Howie (2006).
[31]Hertz (1998).
[32]Ibid.
[33]Ibid.
[34]Ibid.
[35]Walter and Howie (2006).
[36]Garver (2022).
[37]Hertz (1998).
[38]Ibid.
[39]Ibid.

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environment, political signals are even more salient to domestic Chinese investors. Therefore, I hypothesize that in the lead up to public holidays, stock returns will be lower than normal due to the anticipation of collective action. I illustrate two theoretical mechanisms to explain depressed stock returns in the lead up to public holidays: (1) Chinese investors will act conservatively or (2) the government will intervene in the stock market during sensitive periods due to concerns about collective action.

Both the Shenzhen and Shanghai stock exchanges observe the same public holidays, on which dates the stock market is closed to traders. Two examples of collective action during these periods include the "Occupy Central Movement (28 September 2014) and the Mong Kok Riots (8 February 2016) [which] began immediately before or during major national holidays."[40] Additionally, prior to Chinese New Year, "workers seek wage payments before the holidays" through collective action.[41] The Party Congress, which begins on National Day, is also associated with increased protest, as it is one of the most tense political moments during the year in China.[42]

Public Holiday	Date Observed in 2022
New Year's Day	January 3
Chinese New Year	January 31 – February 4
Qingming Festival	April 4 – 5
Labor Day	May 2 – 4
Dragon Boat Festival	June 3
Mid-Autumn Festival	September 12
National Day	October 3 – 7

Before public holidays, the level of Chinese censorship over social media is extremely high, in anticipation of collective action. Lorentzen (2014) argues that the Chinese government engages in "strategic censorship," which allows for targeted repression of important information "depending on the level of societal tensions." Tensions are heightened directly before public holidays and anniversaries in China, especially those that contain a ritualistic component like National Day.[43] During these times, the central government restricts citizen complaints on social media platforms (as well as general repression) to "create a merry and harmonious atmosphere."[44] The government also mobilizes the 50c party during these tenuous moments, with bursts of distracting or pro-government posts.[45] These "prime time periods of political unrest" include national holidays and political meetings.[46] It is clear that the Chinese government is concerned about the prospect of collective action during these periods and takes extensive measures to address the potential for political tensions.

Investor concern

The first potential mechanism for depressed stock markets ahead of public holidays is that investors change their behavior due to the political environment during these periods. While the international community may not be fully aware of the significance of these dates and the associated levels of

[40]Steinhardt (2020).
[41]Steinhardt (2020).
[42]Carter and Carter (2020).
[43]Han and Shao (2022).
[44]Ibid.
[45]King, Pan, and Roberts (2017).
[46]Ibid.

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repression, it is extremely likely that the collective memory of the Chinese population does. The Chinese stock market is driven primarily by domestic actors, a fact that has caused significant pushback during the U.S.-China trade war negotiations in recent years.[47] Despite recent changes to increase the share of foreign investor involvement in the Chinese stock market,[48] "foreign owners account for only 3 percent of domestic fixed income securities in China's onshore bond market."[49] The B market, though now open to foreign investors, is made up of 66 percent Chinese nationals.[50] The disinterest from foreign investors is continuing to grow as Xi's ideologically driven policy—particularly surrounding COVID-19 and the Russia-Ukraine crisis—is expected to persist with his re-appointment, leading to potentially deleterious and unpredictable effects for investors.[51]

In addition, economic elites—the primary investors in the Chinese stock market—are most likely to be aware of the sensitivity of these periods because of their educational background and high status in society.[52] These actors maintain primary control over the investment environment, with "63 percent of all A shares trading in Shenzhen ... controlled by only 12 percent of shareholders."[53] Their actions are also frequently semi-coordinated, as they share information about what they are trading[54] and maintain multiple investment accounts by which to affect the market.[55] It is plausible that these domestic elite actors who control the stock market would pay attention to the political environment when making decisions. These investors also have an interest in preserving the status quo in both China's political and economic systems, as they are benefitting from its current arrangement.[56]

Despite their elite status, these domestic investors face an information problem when making decisions in the Chinese stock market. There are two factors that limit investors' access to credible information. First, oversight by the central government creates stock prices that are often driven by administrative choices, rather than the free market.[57] Therefore, the stock market conveys less information to investors—relative to more developed stock markets.[58] Second, it is extremely difficult to obtain quality or reliable information about Chinese companies' financial conditions.[59]

Therefore, in place of credible information, I argue that investors use heuristics—in this case, the political environment—to decide on the best course of action. This factor distinguishes the Chinese stock market environment from other contexts. As one investor stated: what is "most important to analyzing the stock market in China is 'something you don't even have in the West: policy analysis.'"[60] Interviewees made a similar claim during Hertz's ethnographic study: "one could not study economics in China without studying politics."[61] More recently, Rithmire (2023) argues that "market participants learn to read state signals" when making investment decisions.[62] I argue that investors recognize the importance of the political environment in affecting their profit margins and respond accordingly with their trading behavior.

Rapid changes to investment portfolios in response to the political environment are also reasonable in the Chinese context. Chinese investors are particularly focused on short-term investments, with "average investment times run[ning] form two days to two weeks."[63] These trends continue today, as

[47]Petry (2020).
[48]Lardy and Huang (2021).
[49]China Rising: The Door Widens to Investors (2021).
[50]Walter and Howie (2006).
[51]Foreign investors are fleeing China (2022).
[52]Hertz (1998).
[53]Walter and Howie (2006).
[54]Hertz (1998).
[55]Walter and Howie (2006).
[56]Walter and Howie (2006).
[57]Brunnermeier, Sockin, and Xiong (2022).
[58]Ibid.
[59]Ibid.
[60]Walter and Howie (2006).
[61]Ibid.
[62]Rithmire (2023), p. 6.
[63]Walter and Howie (2006).

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CSRC regulators said the majority of investors "simply 'chase trends,' 'lack maturity', and are 'too impulsive'" [64] This differs sharply from investor behavior in the West. Western stock market participants are instead satisfied with slow increases in their investments over time,[65] which does not require the same level of acute and constant attention to the market and political conditions. Furthermore, until 2004, pension funds were not legally allowed to invest in the Chinese stock market.[66] Therefore, there were relatively few large and consistent investment accounts by which to keep the market stable in times of uncertainty or instability.

In sum, information gaps caus Chinese investors to rely on heuristics—the political situation—when making investment decisions. Because public holidays are associated with times of increased political tension and collective action, investors will act conservatively during these times.

Government intervention

The second potential mechanism is that the government intervenes in the lead up of public holidays due to concerns about social instability. As a result, stock returns are artificially depressed during sensitive periods, including both holidays and dates on the "dissident calendar" to prevent sparking social unrest during times that are already considered to be "focal points" for protest.

The Chinese stock market is characterized by "large scale, active interventions" by the Chinese Securities Regulatory Commission (CSRC) to prevent significant booms or busts.[67] China's CSRC intervenes via particularly abrupt means, including "IPO suspension, trading restrictions on index futures, banning net sale for securities firms' proprietary trading, etc."[68] In addition to outright stoppages on certain behavior in the stock market, the CSRC has also engaged in quiet interventions in the stock market through "window guidance," or encouraging firms to pursue particular behavior to bolster the market, such as waiting to sell stocks for a time to stabilize the market.[69]

China's capital markets serve the purpose of maintaining social stability.[70] One aim of government intervention in the stock market is preventing social unrest,[71] given that retail investors involved in the market might provoke backlash if they suffered significant losses.[72] There are examples of stock market activities resulting in protest and discontent in China—perhaps the most prominent example being the 1992 Shenzhen Stock Market protest. This specific incident resulted in "the worst civil unrest reported in China since the Tiananmen Square protests ... rioters set cars on fire and attacked police cars."[73]

I argue that during "focal points" for protest—including both public holidays and dates on the "dissident calendar" —the Chinese government will take particular care to prevent citizens from becoming motivated to protest. Therefore, government intervention in the stock market may be pursued during these sensitive periods to prevent significant crises. Even if the threat of stock market crisis and associated protest are relatively low, the overwhelming costs may result in government intervention. Protests in authoritarian regimes are often thwarted as citizens are not able to coordinate effectively. However, if even a small-scale protest began in connection with the stock market during a time when citizens are either not working or primed to be remembering moments of dissent (on dates on the "dissident calendar"), it may reach a level that the government could no longer effectively control. The potential for protest to reach a tipping point during these periods may result in preemptive government intervention in the stock market to prevent protest beginning in the first place.

At the same time, it is possible that government intervention in the lead up to public holidays does not independently depress stock market returns, but that investor behavior responds to actual or

[64]Yasuda (2023), p. 2076.
[65]Ibid.
[66]Ibid.
[67]Brunnermeier, Sockin, and Xiong (2022).
[68]Yasuda (2023), p. 7.
[69]Lockett and Leahy (2024).
[70]Petry (2020).
[71]Brunnermeier, Sockin, and Xiong (2022).
[72]Dang, Li, and Wang (2022).
[73]WuDUNN (1992).

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anticipated government intervention during these times. The Chinese government is often overt in its efforts to intervene in the market; in the 2015 stock market crash, its intervention in the stock market was publicized by government agencies.[74] Therefore, it is likely that investors alter their behavior when they know that intervention is taking place, or potentially because of expectations that the government will intervene around periods of social unrest – even if this intervention has not been publicized explicitly. Dang, Li, and Wang (2022) articulate investors' interest in government intervention: "as intervention impacts future stock returns, investors could be incentivized to learn about government intervention instead of the fundamental."[75]

Empirical implications

Therefore, I expect that public holidays will be associated with lower average stock returns. I derive the following hypotheses:

Hypothesis 1a: *On the day before a public holiday, the average stock returns at the Shanghai Stock Exchange (SSE) will be significantly lower than normal.*

Hypothesis 1b: *On the day before a public holiday, the average stock returns at the Shenzhen Stock Exchange (SZSE) will be significantly lower than normal.*

Along with the public holidays on which the stock market exchanges close, if these depressions are due to concerns of collective action (on behalf of either investors or the government), there should be similar results prior to dates on the "dissident calendar."[76] These dates act as "natural focal points for coordination," because citizens expect others to participate in political protest based on their association with these times as moments for collective action. The CCP anticipates these focal points as well, which results in preemptive repression as the state "perceive[s] protests as more threatening than usual" during these times.[77] While the repression that takes place on these dates has been historically short in duration,[78] this does not mean that there is no potential concern about what might occur during these time periods. If citizens were successful in reaching a tipping point of collective action, there could be significant effects on the CCP and China as a whole. Additionally, while some protests in China may be "stage managed," the high levels of repression around national focal events indicate that they are the least likely to be orchestrated by the regime (and rather are associated with genuine opposition to the regime).[79] These periods are some of the most likely times for large collective actions, and investors will thus act in a conservative way prior to these potential political risks. Because much of this literature builds upon the Truex (2019) study, I utilize his definition of "focal events" on the dissident calendar to test these hypotheses.

Hypothesis 2a: *Ahead of a focal event, the average stock returns at the Shanghai Stock Exchange (SSE) will be significantly lower than normal.*

Hypothesis 2b: *Ahead of a focal event, the average stock returns at the Shenzhen Stock Exchange (SZSE) will be significantly lower than normal.*

Methods

To test these hypotheses, I use daily stock return data from the Shanghai and Shenzhen stock exchanges. For each day, I calculate the percentage difference between the open and close of the stock

[74]Dang, Li, and Wang (2022).
[75]Ibid, p. 2.
[76]Truex (2019). Carter and Carter (2020).
[77]Steinhardt (2020).
[78]Truex (2019).
[79]Carter and Carter (2020).

https://doi.org/10.1017/bap.2024.11 Published online by Cambridge University Press

market index. Then, I regress the percentage difference on a binary variable which indicates whether the following day is a public holiday. For example, in 2022, the Dragon Boat Festival fell on June 3rd (Friday). In this case, June 2nd, 2022 (Thursday) would be labeled with a "1," as this date is the last day the stock market will be open prior to the public holiday. These variables were hand coded, using calendars from previous years. In addition to the public holiday variable, I included a separate binary "dissident calendar" variable. These dates are taken from Truex (2019), which codes the variables in a less disaggregated way (a monthly indicator, rather than breaking it down to the specific dates). To remain consistent with his paper, I use the same coding practice for the "dissident calendar" variable, though this remains a more crude indicator relative to the public holiday variable. The outcome variable is normally distributed, so I utilize a linear regression model.

$$Y_i = B_0 + X_i\beta_1 + \ e_i$$

In addition, I control for factors that contribute to changing stock market prices. First, I control for the day of the week. Stock market returns differ markedly depending on the day of the week, across markets.[80] Additionally, in the Chinese context, the CCP followed a consistent pattern of visiting the stock markets and demanding alterations to the way the market was functioning on a Friday.[81] On the following Monday, these changes were implemented creating a "price flurry" on that day.[82] Therefore, it is expected that the day of the week will affect stock market returns. There are similar seasonality effects that affect stock returns such as the time of month or year. I control for these factors in the models below as well.

While it would be ideal to reliably delineate between the two potential mechanisms described above, it is not possible to do so. This problem is common in the Chinese politics literature—given that it is often difficult to delineate between government regulation or individual investor behavior in other issue areas. An example includes Wang's (2015) work on the distributional effects of environmental disasters, in which stock market returns were used to "understand whether a certain event changed stock market activity," even though the exact source could not be identified.

There are two primary reasons why delineating the potential mechanisms quantitatively is not possible. First, the exact definition of what government intervention is fraught and would cause estimation problems if trying to parse these mechanisms in a quantitative manner. While there are overt intervention measures—or as Yasuda (2023) might call them "hard paternalistic measures"—by which the government can make changes (e.g. buying up stocks, closing the market, outright bans on certain purchases), government intervention may also take the form of encouraging or nudging investors to buy certain stocks (Rithmire (2023) illustrates this behavior, highlighting the following statement: "Tsinghua University graduates were instructed to shout, "Revive the A-shares, benefit the people!" (p. 19)).[83] Second, government interventions are not always overt and thus cannot be easily tracked for reliable quantitative measurement. There are certainly cases in which the intervention is transparent (e.g. in the aftermath of the 2015 stock market crash).[84] However, the Chinese government also pursues private intervention in stock markets through "window guidance" by asking some investors to not sell their stocks in the hopes of stabilizing the market.[85] Given these concerns, there is no reliable way to delineate between the two mechanisms.

Results

Tables 1 and 2 present the results of the linear regression in the Shanghai Stock Market and Shenzhen Stock Market, respectively. The results are consistent with Hypotheses 1a and 1b. Public holidays are associated with a decrease in stock returns in both the Shenzhen and Shanghai stock exchanges. An

[80]Jacobs and Levy (1988).
[81]Hertz (1998).
[82]Ibid.
[83]Yasuda (2023). Rithmire (2023).
[84]See Dang, Li, and Wang (2022). For an analysis of what the National Team did to address this financial crisis.
[85]Lockett and Leahy (2024).

https://doi.org/10.1017/bap.2024.11 Published online by Cambridge University Press

Table 1: SSE results

	Percent Change	Percent Change w/ Controls	Percent Change	Percent Change w/ Controls
Public Holiday	−0.235*	−0.278*		
Weekday		0.010		0.000
Day of the Year		0.000		
Day of the Month		0.007***		
Year		−0.006**		−0.012***
Dissident Calendar			−0.059***	−0.039**
Num.Obs.	6089	6088	4002	4002
R^2	0.001	0.004	0.004	0.035
R^2 Adj.	0.001	0.003	0.004	0.034
AIC	21280.5	21265.7	2330.4	2208.3
BIC	21300.7	21312.7	2349.3	2239.8
Log.Lik.	−10637.273	−10625.843	−1162.195	−1099.165
F	4.115	4.893	15.611	48.014
RMSE	1.39	1.39	0.32	0.32

Note: Table 1 provides the results of the linear regression model in the Shanghai stock exchange. The dependent variable for Hypotheses 1a and 1b is whether the date precedes a public holiday, coded as 0 or 1. For Hypotheses 2a and 2b, the dependent variable is whether the upcoming month has a dissident calendar date, coded as 0 or 1. The independent variable is the percentage change in the stock market from open to close on that date.
*p < 0.05, **p < 0.01, ***p < 0.001.

Table 2: SZSE results

	Percent Change	Percent Change w/ Controls	Percent Change	Percent Change w/ Controls
Public Holiday	−0.286*	−0.332*		
Weekday		0.008		0.000
Day of the Year		0.007**		
Day of the Month		−0.221**		0.000
Year		−0.005^{+}		−0.014***
Dissident Calendar			−0.032^{+}	−0.008
Num.Obs.	6092	6092	4112	4112
R^2	0.001	0.003	0.001	0.035
R^2 Adj.	0.001	0.002	0.001	0.034
AIC	23062.1	23055.6	3707.8	3572.3
BIC	23082.2	23102.6	3726.7	3610.2
Log.Lik.	−11528.050	−11520.807	−1850.891	−1780.157
F	4.441	3.788	3.445	36.830
RMSE	1.61	1.60	0.38	0.37

Note: Table 2 provides the results of the linear regression model in the Shenzhen stock exchange. The dependent variable for Hypotheses 1a and 1b is whether the date precedes a public holiday, coded as 0 or 1. For Hypotheses 2a and 2b, the dependent variable is whether the upcoming month has a dissident calendar date, coded as 0 or 1. The independent variable is the percentage change in the stock market from open to close on that date.
$^{+}$p < 0.1, *p < 0.05, **p < 0.01, ***p < 0.001.

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impending public holiday is associated with statistically significant decreases by 0.278 percent in Shanghai and 0.332 percent in Shenzhen. The controls increase the magnitude of the effect but do not change its sign or level of significance. Given that the mean percentage change in the stock market per day in Shanghai was −0.07 percent and in Shenzhen was −0.06 percent, this difference is substantively meaningful (albeit small).

The results also hold for Hypothesis 2a, with mixed results for Hypothesis 2b. As above, the dissident calendar is associated with a decrease in stock returns on the Shanghai stock exchange. For the Shenzhen market, there is weak evidence against the null hypothesis; however, this relationship is not statistically significant when accounting for control variables. There are a few reasons why these results might differ from those in Hypotheses 1a and 1b. First, the "dissident calendar" variable is significantly more crude than that used for public holidays. Truex (2019) offers a month-year variable, rather than the exact date on which more collective action could be expected. Therefore, it is more difficult to obtain precise estimates using the dissident calendar.

In sum, the results largely support the hypotheses outlined above. There is a clear statistically significant relationship between public holidays and a decrease in the percentage change in both stock markets. Additionally, the test of the theoretical mechanism provided similar results, despite the imprecise nature of dissident calendar dates. These tests bear out the opposite results of what has been found in the finance literature thus far.

Conclusion

This paper demonstrates an association between public holidays and a subsequent decrease in Chinese stock exchanges. This finding contributes to the finance literature, which has traditionally considered the time before holidays to have a positive effect on stock exchanges, as investors are hopeful and optimistic at this time of year. I theorize that in the Chinese context, where public holidays are often focal points for collective action, this relationship is reversed, and the stock market is depressed during these periods. Two features of the Chinese stock market condition this relationship: (1) the information-poor investment environment and (2) the concentrated market made up of elite domestic investors. This research opens up further questions about how far financial predictions can travel outside of the Western context, more generally. Future research should consider the local context and the unique reactions of investors, as stock markets continue to be founded around the world outside of the West.

Additionally, future studies should parse whether this relationship is unique to the Chinese context, or if it is instead a characteristic of authoritarian contexts. These findings could potentially be extended to autocratic contexts that have stock markets, such as Saudi Arabia and Iran. Though smaller than the Chinese stock markets, these countries may face similar pressures from collective action and protest around holidays. Stock markets in authoritarian states may function differently than democracies in more ways than one, which can be probed in the future.

Acknowledgments. I am grateful to Kevin O'Brien, the Fall 2022 University of California, Berkeley Chinese Politics class, and two anonymous reviewers for helpful feedback and suggestions.

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Cite this article: Kenney MAT (2024). Happy Holidays? Evidence from Chinese Stock Exchanges. *Business and Politics* **26**, 477–488. https://doi.org/10.1017/bap.2024.11

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