



External Governance Oversight and the IPO Process: Empirical Evidence from China

Lewis Liu¹

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Abstract

This study examines the effects of political affiliations as an external governance element on various aspects of the IPO procedure in China. Within China, the significance of political connections is widely recognized as a notable external governance factor capable of exerting influence over both the IPO process. Utilizing a distinctive dataset comprising IPO information from 1856 firms in China spanning the period between 2014 and 2021, the primary objective of this research is to demonstrate that companies with political affiliations have a higher probability of experiencing underpricing, coupled with an increased likelihood of attracting investments from retail investors. Furthermore, these firms tend to attract prestigious underwriters and more underwriter subscriptions, despite having to pay higher floating costs and underwriting fees. Lastly, the study demonstrates that political connections are especially beneficial for firms during market uncertainty, such as the recent pandemic. Political connections act as monitors, reducing information asymmetry and signaling positive aspects of the firms to investors. To strengthen the main conclusions, the study conducts various robustness tests, including PSM and subsample analysis. Overall, the research adds to the existing literature on the crucial role of political connections in promoting IPO practices and reducing information asymmetry through monitoring and support.

Keywords External governance · Political connection · IPO underpricing · Underwriter

JEL Classification G10 · G18 · G20 · G30 · G32

✉ Lewis Liu
l.liu@business.uq.edu.au

¹ UQ Business School, The University of Queensland, St Lucia, Brisbane, QLD 4072, Australia

1 Introduction

The China IPO market is one of the largest in the world. Different from other IPO markets, one of the unique features of the Chinese IPO is that political connections have long been recognized as an important external governance factor (Chen et al., 2017; Gu, 2013; He et al., 2019; Liu et al., 2013).¹ Besides, political connections can also provide IPO firms with access to financing and business opportunities. Faccio et al. (2006) find that politically connected firms in China have higher access to bank loans and are more likely to obtain government contracts than non-connected firms. Political connections help firms overcome information asymmetry and reduce financing constraints, providing them with better access to capital and business opportunities (Fan et al., 2007). In a recent study, Zhang et al. (2022) find that political connections exhibit a positive correlation with the initial returns of IPOs in state-owned firms in China.

In detail, prior literature has indicated that, in China, political connections are considered crucial for IPO firms as they can provide access to valuable resources and networks that can be beneficial for their growth and success (Liu et al., 2013). Political connections can enhance the likelihood of IPO approval by regulatory authorities in China and have a lower risk of IPO rejection (Bao et al., 2016; Hung et al., 2012). In addition, Francis et al. (2009) indicate that politically connected firms receive preferential treatment during the IPO process. As such, firms with political connections not only have a higher likelihood of getting approved for IPO, but they are more likely to receive preferential treatment (Li & Zhou, 2015). For underwriters, Chen et al., (2017) indicate that the likelihood of IPO approval is higher if the issuance is underwritten by a politically connected underwriter.

Firms with political connections tend to shift their resource allocation from innovative to non-innovative projects after IPOs (Tang & Liu, 2022). Likewise, political promotion also affects IPO activities in China (Piotroski & Zhang, 2014). Furthermore, the reliance on them should be balanced with ethical considerations and a focus on building a strong and sustainable business model (Wang and Wu, 2020). The effect of political connections on IPO activity in China is an important and timely research topic with potential implications for firms, investors, and policymakers (Yang, 2013). The use of political connections in the Chinese IPO market is a complex issue. As China continues to develop and modernize its economy, it will be interesting to see how the role of political connections in the IPO process evolves.

Despite the extensive research on the importance of political connections in the Chinese business environment, there are still research gaps in understanding the precise nature of the relationship between political connections and IPOs in China. One area where research is lacking is in understanding the specific mechanisms through which political connections affect the IPO process in China. Moreover, it is still not clear whether political connections primarily affect the approval process or have a broader impact on a firm's overall performance. While research has established a

¹ In China, the government plays a significant role in the economy, and political connections are often viewed as a necessary means of navigating the complex regulatory and bureaucratic landscape.

link between political connections and access to financing, there is still a need for further research on the impact of political connections on a firm's entire IPO process. Although existing research has highlighted the importance of political connections in the Chinese IPO market, there is still much to be learned about the specific mechanisms through which political connections affect the IPO process.

The motivation for studying the effect of political connections on IPO activity in China is to better understand the aspects that shape the IPO process in this unique business environment. The Chinese IPO market is characterized by a unique regulatory and institutional environment, and research into the effect of political connections can provide valuable insights into the factors that influence the success of IPOs in China. Besides, understanding the impact of political connections on IPO activity in China can have important implications for firms seeking to go public in this market. This study aims to provide insights into the role of political connections in the IPO process, so firms can better position themselves to navigate the complex regulatory landscape and increase their chances of success.

Political connections can help reduce regulatory risks. Political connections may help firms navigate regulatory hurdles more easily, reducing regulatory risks associated with the IPO process. Likewise, politically connected firms may have easier access to resources, capital, and influential networks, which can lower financial risks. Additionally, research on the effect of political connections on IPO activity in China can provide valuable insights for investors seeking to assess the risks and opportunities of investing in Chinese firms. Investors in the Chinese IPO market need to be aware of the potential impact of political connections on the IPO process, as these connections can have important implications for a firm's long-term performance and sustainability (Zhang et al., 2022).

This study aims to investigate the relationship between political connections and various aspects related to initial public offerings (IPOs) in China, using 1856 IPO firms spanning the years 2014–2021. The study builds on previous research and employs ordinary least squares (OLS) regression to test its hypotheses. To address potential issues of endogeneity and selection bias, the study also employs the Propensity Score Matching (PSM) method. Politically connected firms in China may receive preferential treatment from underwriters and regulators, leading to higher underpricing. As such, in Hypothesis 1, this study proposes that political connection is positively related to IPO underpricing. Furthermore, in Hypothesis 2, it is proposed that politically connected firms are likely to attract more IPO share subscriptions, particularly from retail investors. Hypothesis 3 posits that politically connected firms are also more likely to hire prestigious underwriters, receive more underwriters share subscriptions, and pay higher floating costs and underwriting fees. Lastly, the study aims to investigate whether the positive impact of political connections on IPO activity is particularly pronounced during the pandemic.

The findings support the hypothesis and align with the argument. Political connection has a positive effect on the IPO process in China, and the effect is stronger during crisis periods such as the COVID-19 pandemic. This study provides insights into the broader implications of political connections in China's IPO market, as well as shed light on the impact of political connections on firm performance and sustainability. Besides, this study offers a better understanding of the role of political

connections in China's IPO process. As China continues to emerge as a major economic power, the role of political connections in shaping economic outcomes is becoming increasingly important.

Furthermore, the focus of this paper is on the China Stock Exchange market, policymakers can still leverage the insights from this study to enhance the quality of public information in the context of the Chinese market.² Specifically, they can consider implementing measures that promote transparency and disclosure requirements in IPOs, which could mitigate the potential influence of political affiliations and enhance the reliability of information available to investors. In terms of addressing specific risks, investors and underwriters can use the findings to better understand the impact of political endorsements on IPO outcomes in China. They can incorporate more robust risk assessment procedures and due diligence when evaluating IPO opportunities, which can help mitigate certain risks associated with underpricing, retail investor attraction, and choice of underwriters.

External governance is important for firms and studies have shown that media coverage and analyst coverage are important external monitoring entities. For example, Yu (2023) indicates that media coverage acts as a monitoring role, reducing the impact of market manipulation and enhancing the market's capacity to effectively integrate accounting information into stock prices. Liu (2024) shows that an analyst, as a pivotal external monitor, can mitigate information asymmetry and positively affect environment investment. This study will contribute to the external governance literature that political connections, as a vital external governance body, are significant in IPO activity in China. In addition, it provides valuable insights into the complex dynamics of the Chinese business environment and contributes to a broader understanding of the role of political connections in China's economic development. This study offers practical implications for firms, investors, and policymakers seeking to navigate the challenges and opportunities of China's rapidly changing business landscape.

Overall, the findings suggest that firms with political connections are more likely to experience underpricing during the IPO process, attract investments from retail investors, engage prestigious underwriters, and receive more underwriter subscriptions. Despite the higher costs associated with these advantages, such firms still benefit from political affiliations, particularly during periods of market uncertainty like the recent pandemic.

The remainder of this paper proceeds as follows. Section 2 summarizes the literature and develops hypotheses. Section 3 discusses the empirical methodology and describes the sample data. Section 4 presents the empirical results and robust test. Section 5 concludes the study.

² Understand Chinese financial market is significant for portfolio diversification, Yadav et al. (2023) indicate that there is a volatility spillover effect from Chinese stock market to other Asian emerging economies such as India and Indonesia.

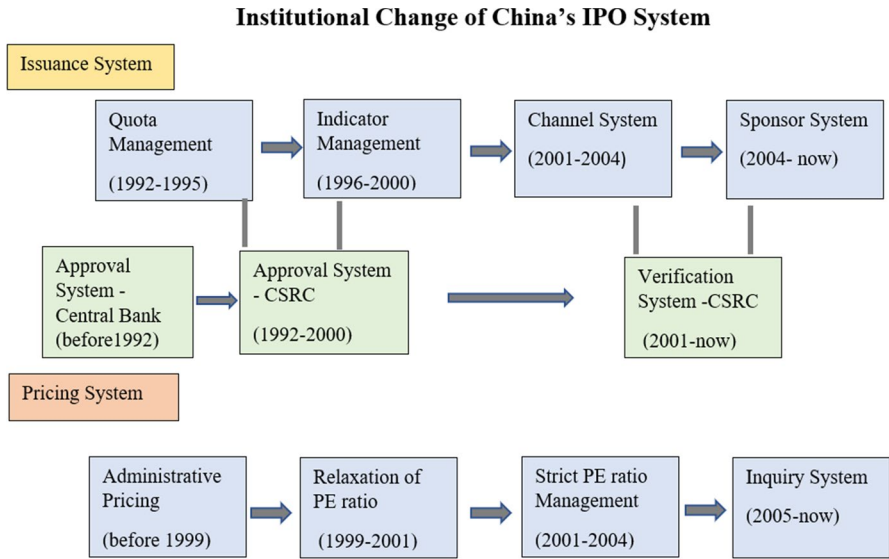


Fig. 1 The institutional change of China's IPO system. *Source:* The figure is created by the author based on the information from China Security Regulatory Committee (CSRC)

2 Literature Review and Hypotheses Development

This section formulates hypotheses based on a thorough examination of existing literature, linking the institutional background, political connections, and underwriting dynamics in China's IPO market. Specifically, this section examines the institutional background and IPO dynamics in China and examines the role of political connections in the underwriting process. The impacts on the underwriter's reputation, subscription, floating costs, and underwriting fees are investigated. Additionally, this section explores how political connections have become crucial during the COVID-19 pandemic, influencing government support and investor confidence.

2.1 Institutional Background

The operation of the IPO market in China is shaped by its unique institutional background (refer to Fig. 1). The China Securities Regulatory Commission (CSRC) is responsible for regulating the market by approving IPO applications, conducting reviews, and establishing the pricing mechanism (Wu & Zhou, 2022). The CSRC also ensures the accuracy and completeness of information disclosure related to IPOs.³ Another notable characteristic of the Chinese IPO market is the significant

³ A distinctive feature of the Chinese IPO market is the utilization of a 'pre-approval' system, where firms must obtain regulatory approval before listing on the stock market. This system was introduced in 1994 to manage the rapid growth of the IPO market and is still in effect today.

presence of state-owned enterprises (SOEs). Historically, SOEs have been the primary source of IPOs in China, as the government aims to raise funds for economic development. While private companies are increasingly seeking IPOs, SOEs continue to dominate the market. The Chinese government views SOEs as a tool to pursue economic and social objectives, often intervening in the IPO market to promote the listing of SOEs.⁴

2.2 IPO Underpricing

In a recent study on the Chinese financial market, Chu et al. (2021) find that the economic role of information supply and demand in the financial market has a positive impact on intraday crashes and jumps. For the IPO market, prior studies have investigated the effect of political connections on IPO underpricing in China (Azevedo et al., 2018; Chen et al., 2004; Wang et al., 2018; Zhang et al., 2022). For instance, Yang et al. (2020) demonstrate that political connections can contribute to increased underpricing of IPOs in China. The authors argue that political affiliations can serve as a signal of political support, attracting more investors while simultaneously driving up share demand and resulting in higher levels of underpricing. Similarly, Hao et al. (2014) discover that politically connected firms in China tend to experience higher levels of IPO underpricing, indicating a potential inclination for underwriters to underprice IPOs to attract greater levels of underwriter subscription.

In a similar vein, previous research conducted by Wu et al. (2013) highlights the positive impact of political connections on IPO underpricing in China. The study suggests that politically connected firms may receive preferential treatment from underwriters and regulators, leading to higher levels of underpricing. Additionally, Liu et al., (2020a, 2020b) propose that political connections exert a positive influence on underpricing. These studies indicate that political connections can provide firms with valuable resources and networks, which, in turn, can generate increased demand for their shares and contribute to higher levels of underpricing. Moreover, politically connected firms may be perceived as less risky and more trustworthy by investors, leading to heightened demand for their shares and further driving up underpricing. This perception of reduced risk may stem from the belief that politically connected firms are more likely to receive favorable treatment from regulatory bodies and other governmental agencies.

In this respect, political connection affects IPO underpricing in China for several reasons. First, political connections can signal that the firm has political support, which can attract more investors but also increase the demand for shares, leading to higher underpricing. Underwriters may be more willing to underprice shares for politically connected firms to ensure a successful IPO and maintain a good relationship with the firm and its political allies. Regulators may also be more lenient towards politically connected firms, allowing them to disclose less information or

⁴ This intervention can include preferential treatment, such as expediting the IPO process for SOEs or controlling the IPO pricing mechanism to ensure high valuations are achieved.

meet lower standards, which can lead to higher underpricing. Discuss those political connections that lead to higher IPO underpricing in China.

The effect of political connections on IPO underpricing in China is complex, and further research is needed to fully understand the complex relationship between political connections and IPO underpricing in China. Politically connected firms may be perceived as less risky, further contributing to higher underpricing. Hence, the study proposes H1 as below.

H1: *Ceteris paribus*, the political connection is positively related to the IPO underpricing.

2.3 Political Connection and IPO Share Subscription

There is evidence to suggest that political connections can lead to higher IPO share subscriptions in China. Chen et al. (2018) show that politically connected firms have higher IPO subscription rates in China. Likewise, Chen et al., (2017) find that political connections positively influence IPO subscription rates, while Arora and Singh (2020) present that political connections increase the likelihood of oversubscription in IPOs. Political connections can signal to investors that the firm has political support, which can increase investor confidence and lead to greater demand for shares. Additionally, politically connected firms may have better access to information and resources, which can further increase investor confidence and lead to higher share subscription rates.

Furthermore, politically connected firms may receive preferential treatment from underwriters and regulators, which can further increase investor confidence and lead to higher share subscription rates. Underwriters may be more willing to promote shares for politically connected firms, while regulators may be more lenient towards politically connected firms, allowing them to meet lower disclosure standards or other requirements. In summary, political connections may signal to investors that the firm has political support and access to valuable resources, increasing investor confidence and demand for shares. As discussed, politically connected firms may receive preferential treatment from underwriters and regulators, therefore further increasing investor confidence and share subscription rates. Hence, this study proposes H2 as below.

H2: *Ceteris paribus*, politically connected firms receive higher IPO share subscriptions.

Previous research has indicated that political connections can result in higher subscription rates among retail investors for IPO shares in China, while not significantly affecting institutional subscription rates. For instance, Tang and Liu (2022) discovered that political connections have a positive influence on retail IPO subscription rates but do not have a significant impact on institutional subscription rates. Furthermore, politically connected firms may employ strategies that specifically appeal to retail investors, such as offering shares at lower prices or targeting individual investors through online platforms.

These practices can enhance the demand for shares among retail investors, while institutional investors typically place more emphasis on the underlying fundamentals

of the firm. Political connections can serve as a signal to retail investors, indicating that the firm enjoys political support and has access to valuable resources. This signal can boost investor confidence and result in increased demand for shares. Moreover, politically connected firms in China may place a greater reliance on retail investors. A study conducted by Liu et al., (2020a, 2020b) reveals that politically connected firms experienced higher levels of retail subscription compared to non-connected firms. This disparity may reflect the greater influence that politically connected firms have on local communities and retail investors, as well as their potential to leverage their political connections to garner support for their IPOs.

There are several reasons why political connections may have a greater impact on retail IPO share subscription than on institutional subscription in China. One key factor is the different features between retail and institutional investors, including differences in levels of information, expertise, and monitoring roles. Retail investors in China are often less informed and less experienced than institutional investors and may rely more on heuristics and simple decision rules when making investment decisions (Field & Lowry, 2009). This makes them more susceptible to the influence of political connections, which can signal to them that the firm has valuable resources and political support. In contrast, institutional investors are more likely to have access to information and analytical tools that enable them to evaluate a firm's fundamentals and potential risks and may be less swayed by political connections.

There is evidence to suggest that political connections can lead to higher retail IPO share subscriptions in China, but not institutional subscriptions. Retail investors may be more influenced by political connections, as they signal political support and access to resources, while institutional investors may be more concerned with the fundamentals of the firm. Hence, this study proposes the following hypothesis H2a.

H2a: *Ceteris paribus*, politically connected firms receive higher IPO share subscriptions from retail investors.

In contrast to retail investors, institutional investors may harbor skepticism towards politically connected firms due to concerns regarding conflicts of interest or preferential treatment (Field & Lowry, 2009). According to a recent study by Liu et al., (2020a, 2020b), politically connected firms are not likely to attract higher levels of institutional investment compared to non-connected firms. This discrepancy may be attributed to the information asymmetries and agency problems that institutional investors encounter when investing in politically connected firms. Furthermore, institutional investors in China are subject to stricter regulatory requirements and face increased scrutiny from regulators and stakeholders. Consequently, they tend to exercise caution and exhibit a lower willingness to invest in politically connected firms, which could be perceived as carrying higher risk or being potentially exposed to conflicts of interest (Song et al., 2017). Conversely, retail investors face fewer regulatory restrictions and are more inclined to embrace higher-risk investments, particularly when they perceive political support for the firm.

In addition, institutional investors have a greater monitoring role than retail investors, as they often hold larger positions in a firm and have more influence over corporate governance decisions (Field & Lowry, 2009). This makes them more concerned with the quality of a firm's management and its adherence to ethical and legal standards, and less influenced by political connections. Retail investors, in contrast,

may be more focused on short-term gains and may be less concerned with issues of corporate governance (Field & Lowry, 2009). Overall, the different features of retail and institutional investors in China can help to explain why political connections have a greater impact on retail IPO share subscription than on institutional subscription. Retail investors may be less informed and less experienced than institutional investors and may place more emphasis on heuristics and simple decision rules. Institutional investors may be subject to stricter regulatory requirements and may have a greater monitoring role, making them more cautious about investing in politically connected firms. Based on these, this study proposes H2b as below.

H2b: *Ceteris paribus*, politically connected firms do not receive higher IPO share subscriptions from institutional investors.

2.4 Underwriter

Political connections can exert influence on the underwriting process. Liu et al. (2021) indicate that politically connected firms in China tend to receive preferential treatment during the underwriting process, including heightened levels of analyst coverage and improved access to institutional investors. This suggests that underwriters may display a greater willingness to provide additional support and resources to politically connected firms. Additionally, Suchard et al. (2021) find evidence indicating that politically connected firms in China are more likely to obtain underwriting licenses from regulatory authorities. These findings underscore the impact political connections can have on the regulatory landscape in China, as well as the potential advantages underwriters may gain from being associated with politically connected firms.

These findings suggest that political connections can play an important role in shaping the relationship between firms and underwriters in IPO activity in China. Political connections may help firms select prestigious underwriters, negotiate better terms, and obtain additional support during the underwriting process. However, these benefits may also come at a cost, such as higher underwriting fees and greater regulatory scrutiny.

2.4.1 Underwriter Reputation

Existing research examining the connection between political ties and underwriters in China's IPO market suggests that politically connected firms are more inclined to engage prestigious underwriters. Chen and Wang (2016) reveal that politically connected firms in China tend to select underwriters with higher reputation rankings. This preference for reputable underwriters may indicate the ability of politically connected firms to mitigate information asymmetries and signal their quality to potential investors.

Furthermore, prior studies have indicated that politically connected firms in China are more likely to hire reputable underwriters. These findings suggest that politically connected firms can use their political connections to signal their quality to potential investors and overcome informational asymmetries. Hu et al. (2021)

find that politically connected firms in China were more likely to select underwriters with higher reputational rankings. Similarly, Rumokoy et al. (2019) show that politically connected firms tend to hire top-tier underwriters. These findings suggest that political connections can be an asset for firms looking to attract high-quality underwriters and signal their quality to potential investors. Based on these, this study proposes the following hypothesis H3a.

H3a: *Ceteris paribus*, politically connected firms are likely to hire a prestigious underwriter.

2.4.2 Underwriter Subscription

In the Chinese IPO market, underwriters possess a distinctive feature of supporting IPO firms through the subscription of shares in the event of IPO (Liu et al., 2022). Previous research has shown that politically connected firms in China have a higher likelihood of attracting greater underwriter subscriptions in IPO activity (Song et al., 2017). Moreover, politically connected firms in China tend to attract prestigious underwriters. As discussed above, politically connected firms are more inclined to select underwriters with higher reputational rankings (Chen and Wang, 2016), which in turn can lead to increased levels of underwriter subscription. Additionally, Bao et al. (2016) revealed that politically connected firms in China receive higher levels of underwriter compensation, suggesting that underwriters are more willing to allocate additional resources to support politically connected firms.

Further, political connections may facilitate the allocation of underwriter shares. Tsai et al. (2021) find that firms with political connections in China tend to receive larger allocations of underwriter shares in IPOs, which suggests that underwriters may allocate more shares to politically connected firms to maintain their relationships with these firms. The benefits of political connections for underwriter subscription may depend on the quality of the political connection. Politically connected firms with better political connections are likely to receive higher levels of underwriter subscription, while firms with weaker political connections did not benefit as much.

These findings suggest that political connections can be a valuable asset for firms looking to attract high levels of underwriter subscription in IPO activity in China. Politically connected firms may be more likely to attract prestigious underwriters, receive more underwriter compensation, and receive larger allocations of underwriter shares. Therefore, this study proposes H3b as below.

H3b: *Ceteris paribus*, politically connected firms are likely to receive more underwriter share subscriptions.

2.4.3 Floating Cost and Underwriting Fee

Multiple studies have provided evidence indicating that firms with political connections in China tend to experience higher floating costs and underwriting fees in their IPOs (Bao et al., 2016; Chen & Wang, 2016). For example, politically connected firms in China typically pay higher underwriting fees compared to non-connected firms (Chen & Wang, 2016). They suggest that this may be attributed to the

market power wielded by politically connected firms, enabling them to negotiate more favorable terms with underwriters. Furthermore, Bao et al. (2016) demonstrate that politically connected firms in China face higher underwriting fees. This can be attributed to the perception of lower risk and higher likelihood of success associated with politically connected firms, allowing underwriters to charge higher fees.

Furthermore, Chen and Wang (2016) indicate that politically connected firms in China have higher floating costs. These firms are more likely to have a higher valuation and require a larger amount of capital to be raised in their IPO. In a similar vein, politically connected firms in China have higher underwriting fees compared to non-connected firms because underwriters can charge a premium to politically connected firms due to the potential for future business relationships and benefits from political connections. In addition, politically connected firms in China pay higher underwriting fees for seasoned equity offerings (SEOs), and these firms are more likely to have a higher level of uncertainty and require more monitoring, which leads to higher fees (Rumokoy et al., 2019). This may reflect the higher demand for underwriting services from politically connected firms, as well as the greater bargaining power that these firms may have.

Overall, these studies suggest that politically connected firms in China are likely to pay higher floating costs and underwriting fees in their IPOs. This may be due to a combination of aspects, such as market power, perceived lower risk, higher valuations, potential future benefits, and higher monitoring requirements. Hence, this study proposes hypothesis H3c as below.

H3c: *Ceteris paribus*, politically connected firms pay higher floating costs and underwriting fees.

2.5 The Positive Impact of Political Connection in the Pandemic

Crisis and market timing are critical for financial activities, Huo et al. (2018) find that the valuation of ADR IPOs is notably higher than that of U.S. domestic seasoned firms, consistent with the windows of opportunity hypothesis. Study shows that the leading effect of the COVID-19 pandemic on the systemic risk in the financial market is quite significant (So et al., 2021). Recent findings have indicated that the influence of political connections on IPO activities in China is particularly pronounced during the COVID-19 pandemic (Liu & Zhao, 2023). This can be attributed to the fact that firms with political connections are more likely to receive government support amidst economic uncertainty, thereby bolstering investor confidence and generating higher demand for their IPOs (Baig & Chen, 2022).

During times of crisis, government support plays a crucial role in reducing uncertainty and mitigating risks associated with IPO investments (Baig & Chen, 2022; Liu et al., 2021). Recent research conducted by Liu and Zhao (2023) suggests that political connections have a positive impact on IPO underpricing, particularly during the COVID-19 pandemic, as politically connected firms received increased support from the government. Furthermore, firms with political connections are more likely to receive preferential treatment in terms of regulatory approval and access to capital, further enhancing their IPO activities amidst the pandemic. Politically

connected firms tend to secure regulatory approval for their IPOs more easily and experience faster, more efficient processing of their IPO applications (Liu & Zhao, 2023).

Overall, these findings suggest that the positive effect of political connections on IPO activities in China is even stronger during the COVID-19 pandemic, as firms with political connections are more likely to receive government support, favorable regulatory treatment, and investor confidence. Hence, this study proposes the following hypothesis H4.

H4: *Ceteris paribus*, the positive effect of political connection on IPO activity is significant during the pandemic.

3 Data and Methodology

3.1 Methodology

3.1.1 Models

This study employs the following empirical models to test the hypotheses. This study estimates ordinary least squares (OLS) regression as in Eq. (1) for all hypotheses. Specifically, the association between political connections and IPO aspects such as underpricing, subscription, underwriter, etc. This study expects the coefficients of the variables of interest to be positive, suggesting political connection has a positive impact on the IPO process. All regression models incorporate the year and industry fixed effects and cluster at the firm level. Variables and proxies are discussed in the following section.

$$IPO = \beta_0 + \beta_1 Political + \beta_2 X + \beta_3 Z + FE + \varepsilon \quad (1)$$

where *IPO*—IPO aspects are measured as underpricing, subscription (retail and institutions), underwriter reputation, underwriter subscription, and floating costs and underwriting fees. *Political* represents firm political connection using two proxies: (1) value of state-owned shares and (2) state-owned share percentage. The *X* and *Z* are vectors of firm-level variables to control for additional financial (*X*) and macroeconomic environment (*Z*) identified within the literature as influencing *IPO activities*. The FE represents the inclusion of year, industry-fixed effects. The specific variables included as controls are discussed in detail below. All variable definitions are summarized in Appendix 1. The model is run using OLS with standard errors clustered at the firm level. Based on *the hypotheses*, this study expects the coefficient on *politics* to be positive (i.e., $\beta_1 > 0$).

3.1.2 Propensity Score Matching (PSM)

The use of the Propensity Score Matching (PSM) method in this study is important because it helps to address the issue of endogeneity and selection bias that may arise in the relationship between political connection and IPO activity. PSM is a

widely recognized method that has been used in various studies to minimize bias in observational studies. In the context of this study, PSM is used to match the treatment group (firms with higher political connections) and the control group (firms with lower or no political connections). This allows the study to isolate the effect of political connections on IPO activity and provides more robust results. Further, PSM helps to create a counterfactual scenario in which the only difference between the treatment and control groups is the presence of political connection. The results obtained from PSM suggest that the positive relationship between political connection and the IPO process is not driven by unobserved heterogeneity or selection bias. Therefore, the use of PSM in this study enhances the internal validity of the causal relationship between political connection and IPO aspects. The PSM regression as specified in Eq. (2):

$$Political = \beta_0 + \beta_1 X + \beta_2 Z + FE + \varepsilon \quad (2)$$

where *Political* is a categorical variable equal to 1 if the firm has a higher political connection, and 0 if it is lower or has no political connection.). The other variable explanations are the same as Eq. (1).

3.1.2.1 Proxies of Political Connection Following the prior literature (Fan et al., 2007; Liu et al., 2013), this study employs state-owned shares as a proxy for political connections which is a common approach in empirical research on IPOs in China. Fan et al. (2007) indicate that state-owned shares can serve as a proxy for political connections in China, as state-owned enterprises (SOEs) are more likely to have political connections due to their close ties to the government. In addition, state-owned shares can capture the political influence of SOEs, which can be seen as a form of political connection (Liu et al., 2013). They argue that state-owned shares can serve as a useful indicator of political connections, as SOEs are more likely to have political connections and to pay higher underwriting fees.

In addition, state-owned shares can capture the political connections of SOEs and government-affiliated firms, which are more likely to receive favorable treatment in the IPO process. Further, following the previous literature and methodology (Fan et al., 2007; Liu et al., 2013), this study constructs a third measure *Political*, a dummy variable that takes the value of 1 for firms with at least 50% shares owned by the state and 0 otherwise. Overall, using these proxies for political connections is a valid approach in empirical research on IPOs in China. State-owned enterprises are often closely tied to the government and are more likely to have political connections, making state-owned shares a useful indicator of political influence.

3.1.2.2 IPO Aspects This study focuses on several key aspects of IPO activities, covering all aspects during the IPO process such as pricing, underwriting, and subscription. To proxy the IPO underpricing, this study adopts *First Day Return* is calculated as closing price less opening price/opening price. In addition, the *Subscription* is the Logarithm value of multiple of gross oversubscription. Retail and Institution are IPO share subscriptions from retail investors and institutional investors, respectively. Besides, this study constructs a dummy variable—*Underwriter Reputation*, which

equals 1 if the underwriter appears in the top 15 rankings in most years in the sample period, and zero otherwise. Further, the *Underwriter subscription* is the logarithm value of the underwriter's subscription of shares. Additionally, the *Floating costs* are the expenses associated with underwriting and issuing the shares, which can vary depending on the size and complexity of the offering. Lastly, the *Underwriting fee* is the compensation paid by the issuer to the underwriters for assuming the risk of purchasing the shares from the issuer and selling them to the public.

3.1.2.3 Control Variables In the context of IPOs, previous studies have shown that several aspects can affect IPO underpricing and subscription, including firm size, profitability, leverage, and market volatility (Chen et al., 2015; Francis et al., 2009; Song et al., 2017). In this sense, in the regression analysis, this study controls firm Size, ROE, EBITDA, Leverage, BM, firm Age, market Volatility and return, and the GDP of the province. Therefore, this study incorporates these factors as control variables in the regression analysis can help isolate the effect of political connections on IPO activities.

In addition, controlling for macroeconomic factors such as the GDP of the province can also be important, as it reflects the economic conditions in the region where the firm is located. Previous studies have shown that regional economic conditions can affect IPO activities, such as underpricing and subscription rates (Chen et al., 2015; Li & Zhou, 2015). Therefore, this study controls for market volatility, return, and GDP in the relevant province to account for any regional economic factors that may influence the IPO outcomes. Overall, including a comprehensive set of control variables in the regression analysis can help increase the robustness of the findings and provide a more accurate estimate of the effect of political connections on IPO activities.

3.2 Sample Data

This study constructs a comprehensive IPO dataset that includes 1856 firm-level IPO observations over the period 2014–2021 in China.⁵ The sample period starts from 2014 because there were no IPOs in 2013, due to a CSRC moratorium (the 6th time). Following the prior studies (Chen and Wang, 2016; Wang et al., 2018), the IPO-relevant variables and control variables are obtained from the CSMAR database. For missing values, this study further collects the data from WIND and CSRC websites. After removing observations with missing values and excluding IPO from the financial and utilities industry, this study is based on a unique preliminary sample of 1120 firm-level Chinese IPO observations. For yearly IPOs in China from year 2014–2021, refer to Appendix 2.

⁵ The focus of this paper is primarily on the Chinese market, including IPOs listing on the Shanghai and Shenzhen stock exchanges and excluding Hong Kong stock exchange. Given its unique political and economic dynamics, the Hong Kong market presents a different setting and context, which is an interesting avenue for further research.

Table 1 Descriptive statistics of key variables

Variable	N	Mean	SD	P10	Median	P90
State Share	1856	2.941	3.727	0.000	0.000	8.480
State Owned Pct	1856	0.171	0.273	0.000	0.000	0.581
First Day Return	1856	0.528	0.596	0.098	0.440	1.880
Total Subscription	1856	6.018	1.851	3.408	5.548	8.501
Retail sub	1856	6.003	1.804	2.410	5.565	8.390
Institution sub	1856	5.001	2.881	1.462	4.680	8.668
Underwriter Reputation	1856	0.626	0.484	0.000	1.000	1.000
Underwriter Sub	1856	-0.497	2.911	-5.194	0.000	3.115
Floating costs	1856	4.921	5.018	2.179	4.027	12.632
Underwriting fee	1856	3.715	3.765	1.375	2.980	10.143
Size	1856	8.962	0.445	8.414	8.922	9.903
ROE	1856	0.080	0.082	0.013	0.058	0.232
EBITDA	1856	7.823	0.524	7.059	7.819	8.744
Leverage	1856	1.292	0.894	0.915	1.152	2.302
BM	1856	0.378	0.290	0.148	0.313	0.985
Age	1856	8.062	0.730	6.844	8.225	8.845
Volatility	1856	0.192	0.045	0.130	0.213	0.255
Ret	1856	0.293	0.402	-0.111	0.332	0.990
GDP	1856	3.861	0.260	3.365	3.853	4.181

This table presents descriptive statistics for the key variable of interest during the period 2014–2021. The values are winsorized at 99% level. Variable definitions are presented in Appendix 1

4 Empirical Results

4.1 Descriptive Statistics

Table 1 presents descriptive statistics for the key variable of interest during the period 2014–2021, the mean, SD for State Share and State Owned Pct, and other variables are within the normal range. It appears that the descriptive statistics for the key variables of interest (StateShare and StateOwnedPct) are within the normal range, with mean and standard deviation values indicating a moderate level of variation. This suggests that the sample used in the analysis is representative of the population being studied and can provide reliable estimates of the relationship between political connections and IPO activities in China.

Table 2 presents the results of the Pearson Correlation Matrix, which shows the Pearson correlation between the key variables of interest. The positive correlation between explanatory variables suggests that they are related and may have some impact on the outcome variable. The values being winsorized at the 99% level indicate that any extreme values have been adjusted to reduce their impact on the results. Furthermore, the statistically significant correlation at the 0.001 level of confidence indicates that the relationship between the variables is not due

Table 2 Pearson correlation matrix

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
[1] State Share	1									
[2] State Owned Pct	0.868	1								
[3] First Day Return	0.088	0.113	1							
[4] Total Subscription	0.221	0.127	0.187	1						
[5] Retail sub	0.161	0.078	0.204	0.983	1					
[6] Institution sub	0.245	0.217	0.114	0.522	0.450	1				
[7] Underwriter Reputation	0.040	0.076	0.018	-0.026	-0.027	0.058	1			
[8] Underwriter Sub	0.414	0.300	-0.364	0.426	0.322	0.326	-0.011	1		
[9] Floating costs	0.178	0.208	-0.156	-0.137	-0.138	-0.009	0.105	0.157	1	
[10] Underwriting fee	0.160	0.194	-0.183	-0.207	-0.208	-0.059	0.117	0.152	0.882	1

This table shows the Pearson correlation of the key variables. The correlation between explanatory variables is positively related. The values are winsorized at 99% level. The variables correlations reported are statistically significant at the 0.001 level of confidence. Variable definitions are presented in Appendix 1

to chance and is more likely to be a true relationship. However, it is important to note that correlation does not imply causation and further analysis is necessary to establish the direction of the relationship between the variables. To draw meaningful conclusions about the research question, this study explores further the causality of political connection and the IPO process.

4.2 Regression Analysis

Based on the results presented in Table 3, it is evident that political connection has a positive relationship with IPO underpricing, as indicated by the positive sign (+) of StateShare and StateOwnedPct variables in all four models. The statistically significant coefficients of 0.021% for every 1% increase in State Share and 0.241% for every 1% increase in State-Owned Percentage suggest that both variables have an impact on IPO first-day returns. When comparing the two coefficients, it becomes clear that an increase in State-Owned Percentage has a more substantial effect on first-day returns compared to an increase in State Share. This could imply that the level of state ownership, as represented by the State-Owned Percentage, plays a more prominent role in influencing IPO first-day returns in the context of this study.

The consistency of these results with previous studies reinforces the idea that political connections contribute positively to IPO underpricing in China. This consistency adds credibility to the understanding that firms with political affiliations are more likely to benefit from underpricing in the Chinese IPO market. The use of StateShare and StateOwnedPct as proxies for political connection is also valid, as discussed earlier. Additionally, the results hold for both first-day return and raw return, indicating that political connections affect the pricing of IPOs throughout the entire IPO process, not just on the first day of trading. Overall, these findings suggest that political connections play a vital role in determining IPO underpricing in China, and firms with political connections are more likely to benefit from underpricing than those without such connections. This highlights the importance of considering political factors when investing in IPOs in China.

The results in Table 4 indicate that political connection has a positive impact on total IPO share subscription in Models 1 and 4. Specifically, the coefficients of StateShare and StateOwnedPct are both positive and statistically significant, suggesting that political connections increase the demand for shares in the IPO. This finding is consistent with previous research on the topic.

When examining the results for retail and institutional subscriptions separately, the impact of political connection is found to be stronger for retail investors. In Models 2 and 5, the coefficients of StateShare and StateOwnedPct are positive and statistically significant, indicating that political connections increase retail subscription. However, in Models 3 and 6, the coefficients are not statistically significant, suggesting that political connections do not have a significant impact on institutional subscription.

This difference in the impact of political connections on retail and institutional subscriptions could be due to several aspects. Retail investors may have a stronger preference for investing in politically connected firms due to the

Table 3 Political connection and IPO underpricing

	Sign	First-day return		Raw return	
		(1)	(2)	(3)	(4)
State Share	+	0.021*** (- 3.14)		0.024*** (3.10)	
State Owned Pct	+		0.241*** (2.96)		0.239*** (2.94)
Size	-	- 0.185*** (- 3.28)	- 0.192*** (- 3.39)	- 0.185*** (- 3.28)	- 0.188*** (- 3.32)
ROE	-	-0.954*** (-3.76)	-0.946*** (-3.74)	-0.954*** (-3.76)	-0.934*** (-3.68)
EBITDA	+	0.046 (0.92)	0.041 (0.82)	0.046 (0.92)	0.041 (0.77)
Leverage	+	0.039*** (2.59)	0.039*** (2.68)	0.039*** (2.59)	0.038** (2.56)
BM	-	- 0.393*** (- 5.03)	- 0.399*** (- 5.04)	- 0.393*** (- 5.03)	- 0.398*** (- 5.08)
Age	+	0.016 (0.66)	0.016 (0.64)	0.016 (0.66)	0.016 (0.64)
Volatility	+	0.311 (1.53)	0.263 (1.28)	0.311 (1.50)	0.281 (1.36)
Ret	+	0.167 (1.29)	0.136 (1.06)	0.667 (0.52)	0.468 (0.36)
GDP	-	- 0.105 (- 1.61)	- 0.103 (- 1.57)	- 0.105 (- 1.60)	- 0.103 (- 1.57)
Constant	-	- 1.892 (- 0.98)	- 1.052 (- 0.48)	- 1.892 (- 0.99)	- 1.052 (- 0.82)
Industry Fixed		Yes	Yes	Yes	Yes
Year Fixed		Yes	Yes	Yes	Yes
Observations		1856	1856	1856	1856
R-squared		0.530	0.534	0.345	0.344

This table reports regression results on the effect of Political connections on IPO first-day return (Underpricing). The independent variables are the proxies for Political connection: (1) State-owned Share and (2) state-owned share percentage. The dependent variable is the IPO's first-day return (underpricing). Models 1–2 report the results using first-day return as the dependent variable and in Model 3–4 the dependent variable is the raw return. All models incorporate financial and economic controls and have the inclusion of year-fixed and industry-fixed effects. Standard errors are heteroscedasticity robust, clustered at the firm level. The values are winsorized at 99% level. Variable definitions are provided in Appendix 1. The t-statistics are reported in parentheses. *** indicates statistical significance at the 1% level for a two-tailed test. ** indicates significance at the 5% level and * indicates significance at the 10% level

perception of higher quality or lower risk. Institutional investors, on the other hand, may rely more on financial analysis and company fundamentals rather than political connections. Additionally, institutional investors may have greater

Table 4 Political connection and share subscription

	Sign	Share subscription					
		Pooled		Retail		Institution	
		(1)	(2)	(3)	(4)	(5)	(6)
State Share	+	0.168** (2.49)	0.517*** (5.81)	0.254 (0.31)			
State Owned Pct	+				0.231*** (3.83)	0.764*** (6.95)	0.467 (1.46)
Size	+	1.209*** (3.47)	1.243*** (5.24)	1.745* (1.84)	1.112*** (3.17)	1.214*** (4.89)	1.712 (1.62)
ROE	-	-0.368 (-1.13)	-0.435 (-0.04)	-0.325 (-1.41)	-0.334 (-1.12)	0.656 (0.06)	0.399 (-1.45)
EBITDA	+	0.137*** (2.58)	0.303 (1.46)	0.712** (2.56)	0.128** (2.27)	0.265 (1.01)	0.709*** (2.23)
Leverage	+	0.441*** (2.75)	0.806*** (3.34)	0.339** (1.86)	0.435*** (2.73)	0.628*** (3.34)	-0.366 (-0.51)
BM	+	0.291*** (3.48)	0.324 (1.04)	0.879*** (3.92)	0.286*** (3.43)	0.823 (0.87)	0.857*** (3.91)
Age	-	-0.161 (-0.62)	-0.584 (-0.47)	-0.126 (-0.49)	-0.695 (-0.64)	-0.629 (-0.62)	-0.166 (-0.51)
Volatility	-	-1.049*** (-7.27)	-1.142*** (-11.67)	-1.627*** (-3.64)	-1.534*** (-9.48)	-1.451*** (-17.10)	-1.513*** (-3.65)
Ret	-	-1.198*** (-8.68)	-1.894*** (-10.75)	-1.429*** (-2.84)	-1.234*** (-8.89)	-1.750*** (16.21)	-1.588*** (-2.86)
GDP	-	-0.586 (-0.84)	-0.329 (-1.18)	-0.667 (-0.49)	-0.464 (0.66)	-0.659 (0.98)	-0.755 (-0.35)
Constant	+	1.477*** (8.82)	1.614*** (15.16)	1.583*** (3.26)	1.476*** (9.05)	1.674*** (16.65)	1.768*** (3.34)
Industry Fixed		Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed		Yes	Yes	Yes	Yes	Yes	Yes
Observations		1856	1856	1856	1856	1856	1856
R-squared		0.503	0.737	0.216	0.517	0.744	0.218

This table reports regression results on the effect of Political connections on IPO subscriptions. The independent variables are the proxies for Political connection: (1) State-owned Share and (2) state-owned share percentage. The dependent variable is the IPO subscription. Models 1 and 4 report the results using a pooled sample. Models 2 and 4 focus on the retail subscription while Models 3 and 6 present the results for institutional subscription. All models incorporate financial and economic controls and have the inclusion of year-fixed and industry-fixed effects. Standard errors are heteroscedasticity robust, clustered at the firm level. The values are winsorized at 99% level. Variable definitions are provided in Appendix 1. The t-statistics are reported in parentheses. *** indicates statistical significance at the 1% level for a two-tailed test. ** indicates significance at the 5% level and * indicates significance at the 10% level

access to information about the firm and may not see political connections as a significant factor in their investment decisions. In aggregate, the results suggest that political connections play a favorable role in driving IPO subscriptions in

China, with a more prominent influence on retail investors compared to institutional investors.

Table 5 presents regression results on the impact of political connections on various aspects of underwriters in IPO activities in China. The study finds that firms with political connections tend to hire reputable underwriters, attract more underwriter subscriptions, and pay higher floating costs and underwriting fees.

In Panel A, Models 1 and 2 show that both proxies for political connection, state-owned share, and state-owned share percentage, have a positive and significant impact on the reputation of underwriters. This implies that politically connected firms in China are more likely to hire underwriters with higher reputational rankings. In Models 3 and 4, the dependent variable is underwriter subscription, and the results indicate that firms with political connections have a higher underwriter subscription. This suggests that politically connected firms are not only preferred by underwriters but are also perceived as lower-risk and more likely to achieve successful IPO outcomes.

In Panel B, Models 1 and 2 show that political connection has a positive and significant impact on floating costs, which are the costs associated with selling securities in the IPO. This means that firms with political connections pay higher floating costs, possibly due to the perceived higher quality of their offerings. In addition, Models 3 and 4 show that political connection is positively related to underwriting fees, which are the compensation paid to underwriters for their services. This implies that politically connected firms in China pay higher fees to underwriters, likely due to their perceived lower risk and higher likelihood of success.

Overall, the results of Table 5 indicate that political connections play a crucial role in shaping the financial aspects of IPO transactions in China, impacting costs and fees associated with the underwriting process.

4.3 Propensity Score Matching (PSM)

The PSM (Propensity Score Matching) results presented in Table 6 provide additional support for the baseline regression results, indicating that political connection has a positive impact on various aspects of the IPO activity in China. The matching process is conducted to match firms with higher political connections with firms with lower political connections of similar firm size, ROA, and other financial characteristics. The treated group is firms with higher political connections, while the control group is firms with lower political connections.

Table 6 shows that firms with higher political connections have significantly higher underpricing. These firms attract more investor subscriptions, especially from retail investors. Further, these firms receive more underwriter subscriptions as support in the IPO process; however, they are likely to pay higher underwriting fees than firms with lower political connections. The overall results are consistent across different matching methods (one-to-one matching, neighbor matching, and radius matching) and support the hypotheses. Besides, the bootstrap test further verifies the results, providing more robust evidence.

Table 5 Political connection and underwriter

	Sign	Underwriter reputation		Underwriter subscription	
		(1)	(2)	(3)	(4)
<i>Panel A: Underwriter reputation and subscription</i>					
State Share	+	0.012* (1.88)		0.089*** (1.98)	
State Owned Pct	+		0.182** (2.19)		1.061*** (2.97)
Size		0.064 (1.06)	0.058 (0.96)	- 0.114 (- 0.38)	- 0.129 (- 0.44)
ROE	+	0.109 (0.38)	0.125 (0.44)	0.346** (- 2.49)	- 0.331** (- 2.38)
EBITDA	+	0.136*** (2.61)	0.127** (2.43)	0.318 (1.37)	0.279 (1.19)
Leverage	-	0.002 (0.03)	- 0.001 (- 0.03)	- 0.091 (- 0.79)	- 0.101 (- 0.87)
BM	-	- 0.312*** (- 3.13)	- 0.312*** (- 3.14)	0.398 (1.15)	0.382 (1.10)
Age	-	- 0.015 (- 0.61)	- 0.015 (- 0.61)	- 0.168 (- 1.45)	- 0.167 (- 1.44)
Volatility	+	0.124 (0.58)	0.091 (0.43)	1.037*** (3.92)	1.294*** (3.74)
Ret	+	0.362 (0.28)	0.174 (0.13)	1.187*** (3.82)	1.178*** (3.64)
GDP	+	0.114* (1.69)	0.117* (1.73)	0.397 (1.30)	0.424 (1.41)
Constant	-	- 1.081 (- 0.82)	- 1.255 (- 0.65)	- 2.710*** (- 3.37)	- 2.385*** (- 3.53)
Industry Fixed		Yes	Yes	Yes	Yes
Year Fixed		Yes	Yes	Yes	Yes
Observations		1856	1856	1856	1856
R-squared		0.237	0.239	0.624	0.637
	Sign	Floating cost		Underwriting fee	
		(1)	(2)	(3)	(4)
<i>Panel B: Floating cost and underwriting fee</i>					
State Share	+	0.204*** (4.01)		0.171*** (4.05)	
State Owned Pct	+		0.223* (1.86)		0.112** (2.01)
Size	+	1.599*** (13.14)	1.611*** (13.25)	1.504*** (13.22)	1.092*** (13.31)
ROE	+	1.471** (2.31)	1.509** (2.47)	1.568** (2.10)	1.386** (2.27)

Table 5 (continued)

	Sign	Floating cost		Underwriting fee	
		(1)	(2)	(3)	(4)
EBITDA	+	0.681* (1.69)	0.702* (1.73)	0.931*** (2.79)	0.943*** (2.79)
Leverage	+	0.247** (2.05)	0.245** (2.03)	0.157 (1.58)	0.156 (1.55)
BM	-	-0.728** (-2.00)	-0.791** (-2.03)	-0.751*** (-3.34)	-0.775*** (-3.36)
Age	-	-0.690*** (-3.45)	-0.688*** (-3.41)	-0.552*** (-3.32)	-0.551*** (-3.29)
Volatility		-0.709 (-1.03)	-0.932 (-1.15)	0.663 (0.42)	0.459 (0.29)
Ret		-0.831 (-0.95)	-0.716 (-1.07)	0.409 (0.41)	0.727 (0.28)
GDP	+	0.938*** (3.67)	0.839*** (3.45)	0.558*** (3.55)	0.482*** (3.35)
Constant	-	-1.691 (-0.42)	-1.158 (-0.29)	-1.659* (-1.74)	-1.615 (-1.60)
Industry Fixed		Yes	Yes	Yes	Yes
Year Fixed		Yes	Yes	Yes	Yes
Observations		1856	1856	1856	1856
R-squared		0.420	0.412	0.427	0.419

This table reports regression results on the effect of Political connections on a variety of aspects of Underwriters. The independent variables are the proxies for Political connection: (1) State-owned Share and (2) state-owned share percentage. In Panel A, the dependent variable in Models 1 and 2 is the underwriter's reputation. In Model 3–4, the dependent variable is the underwriter subscription. In Panel B, the dependent variable in Model 1–2 is the floating costs; and in Model 3–4, the underwriting fee is the dependent variable. All models incorporate financial and economic controls and have the inclusion of year-fixed and industry-fixed effects. Standard errors are heteroscedasticity robust, clustered at the firm level. The values are winsorized at 99% level. Variable definitions are provided in Appendix 1. The t-statistics are reported in parentheses. *** indicates statistical significance at the 1% level for a two-tailed test. ** indicates significance at the 5% level and * indicates significance at the 10% level

In summary, the PSM results provide additional support for the baseline regression results, indicating that political connections have a positive impact on various aspects of the IPO activity in China. Firms with higher political connections are found to have more favorable IPO outcomes, such as higher underpricing, more underwriter subscriptions, and higher underwriting fees, compared to firms with lower political connections. The higher underpricing, increased investor interest, and favorable underwriting conditions for politically connected firms suggest a potential distortion in the allocation of resources and opportunities in the market. This could have implications for market efficiency and the overall health of the financial system.

Table 6 PSM: higher vs lower political connection

	First-day return	Total subscription	Retail	Institution	Underwriter reputation	Underwriter subscription	Floating cost
	(1)	(2)	(3)	(4)	(5)	(6)	(6)
<i>PS matching</i>							
Treated	0.810	0.575	0.457	0.117	0.117	0.425	0.702
Controls	0.544	0.281	0.199	0.082	0.587	0.258	0.455
Divergence	0.266*** (2.70)	0.294*** (3.78)	0.258*** (4.70)	0.035 (1.10)	0.149*** (2.69)	0.167*** (3.03)	0.246*** (3.45)
matched	955	955	955	955	955	955	955
<i>Bootstrap</i>							
Rep=50	0.402*** (4.05)	0.295** (2.15)	0.244*** (3.09)	0.505 (0.58)	0.194*** (2.56)	0.169*** (2.67)	0.292*** (2.79)
Rep=200	0.403*** (4.03)	0.295** (2.66)	0.244*** (3.63)	0.505 (0.67)	0.194*** (2.39)	0.169*** (2.69)	0.292*** (2.79)

This table study matches a firm with a higher political connection to a firm with a lower political connection of similar firm size, ROA, and other financial and board characteristics using one-to-one matching, neighbor matching, and radius matching methods. Firms with higher political connections are treated variables, and firms with lower political connections are control variables. The divergence represents the difference between higher political connection firms and lower political connection firms. At the bottom of the Panel, this study also conducts a Bootstrap test to further verify the results. For brevity, this study only presents results using neighbor matching (NN=2), and other results are similar and support the hypotheses. All models incorporate financial and economic controls and have the inclusion of year-fixed and industry-fixed effects. Standard errors are heteroscedasticity robust, clustered at the firm level. The values are winsorized at 99% level. Variable definitions are provided in Appendix 1. The t-statistics are reported in parentheses. *** indicates statistical significance at the 1% level for a two-tailed test. ** indicates significance at the 5% level and * indicates significance at the 10% level

4.4 Robust Test: The Effect of Political Connection in Pandemic

Table 7 investigates the impact of the COVID-19 pandemic on the relationship between political connections and IPO activities in China. The table reports regression results on the effect of political connections on various aspects of IPO activities during the pre-COVID-19 pandemic period (2014–2019) and the COVID-19 pandemic period (2020–2021). The independent variables are the proxies for political connection: state-owned share and state-owned share percentage. The dependent variables include underpricing, subscription, and underwriter measures.

In detail, the results show that the impact of political connections on IPO activities is stronger during the COVID-19 period. Specifically, firms with higher political connections experience higher underpricing and higher share subscription rates. Besides, politically connected firms are more likely to employ a prestigious underwriter and attract more underwriter subscriptions during the pandemic compared to the pre-pandemic period. This finding suggests that investors tend to perceive firms

Table 7 Sub-sample test

	First-day return (1)	Total Subscription (2)	Retail (3)	Institution (4)	Underwriter reputation (5)	Underwriter subscription (6)	Floating cost (7)
<i>Panel A: Political connection effect pre-pandemic vs pandemic</i>							
Pre-pandemic (1095 IPOs)	0.019*** (2.23)	0.147*** (2.41)	0.504*** (3.31)	0.183 (1.33)	0.009 (0.58)	0.080* (1.76)	0.201*** (2.34)
In pandemic (761 IPOs)	0.036*** (2.66)	0.236*** (3.31)	0.567*** (5.79)	0.219 (0.58)	0.015* (1.88)	0.113*** (2.56)	0.237*** (3.28)
t-test (chi2)	3.95***	20.28***	14.68***	14.17***	4.91***	6.37***	5.74***
p-value	0.001	0.000	0.000	0.000	0.000	0.001	0.001
<i>Panel B: Political connection effect by listing stock exchange—Shanghai vs Shenzhen</i>							
Shanghai (749 IPOs)	0.024** (2.17)	0.418*** (2.81)	0.643*** (4.00)	0.518* (1.72)	0.017** (1.92)	0.103** (2.20)	0.174** (2.26)
Shenzhen (1107 IPOs)	0.029*** (4.46)	0.395*** (9.84)	0.335*** (9.82)	0.598*** (5.05)	0.021*** (2.02)	0.165*** (2.34)	0.159*** (2.04)
t-test (chi2)	0.721	8.12***	5.08**	7.25***	0.124	0.347	0.179
p-value	0.395	0.004	0.024	0.007	0.729	0.592	0.687

This table conducts a subsample test and reports OLS regression results on the effect of Political connection on a variety of aspects during IPO activities. Panel A analyzes the potential influence of the COVID-19 pandemic. The Pandemic period is years 2020 and 2021. The bottom of Panel A reports the difference between pre- and in-pandemic results using a t-test. Pre-Pandemic has 1095 IPOs whereas 761 IPOs in the Pandemic. The sample is balanced. The dependent variable is the IPO process from Model 1 to Model 6. The independent variable is the state-owned share. Panel B conducts a stock listing analysis by investing the different effects across the Shanghai vs Shenzhen stock exchange (749 IPOs vs 1107 IPOs). The bottom of Panel B shows the difference across Shanghai and Shenzhen exchanges using a t-test. For brevity, this study only presents results using State-owned shares as the proxy for political connection, and results using state-owned percentages are similar and support the hypotheses. All models incorporate financial and economic controls and have the inclusion of year-fixed and industry-fixed effects. Standard errors are heteroscedasticity robust, clustered at the firm level. The values are winsorized at 99% level. Variable definitions are provided in Appendix 1. The t-statistics are reported in parentheses. *** indicates statistical significance at the 1% level for a two-tailed test. ** indicates significance at the 5% level and * indicates significance at the 10% level

with political connections to be more resilient and reliable during uncertain times, such as a global pandemic. Furthermore, the result that political connection has a stronger effect on IPO activities during the pandemic period aligns with the notion that investors may need and trust the government more during times of crisis. This finding has important implications for policymakers and regulators in terms of how they can support and regulate the IPO market during challenging times to maintain market stability and investor confidence.

Moreover, the results imply that investors may have relied more heavily on political connections during the pandemic to make investment decisions. One possible explanation for this stronger association is that during times of crisis, investors may seek safety and stability. In this case, political connections could provide investors with a sense of security, as they tend to view politically connected firms as having better access to resources and government support in times of crisis. Additionally, investors are likely to believe that politically connected firms are less likely to default on their obligations or face regulatory challenges due to their connections with the government.

Overall, the findings suggest that political connections play a critical role in IPO activities during the COVID-19 period. Investors may have relied more heavily on political connections to make investment decisions during this period, highlighting the importance of political connections in the Chinese financial market. In times of market uncertainty, the study suggests that political connections serve as valuable monitors, reducing information asymmetry and signaling positive aspects of firms to investors. This implies that, during periods of economic instability, politically connected firms may have a comparative advantage in attracting investment and navigating market challenges.

5 Conclusion

This research investigates the influence of political connections on IPO activity in China, utilizing a comprehensive dataset of IPOs listed on the Shanghai and Shenzhen stock exchanges spanning from 2014 to 2021. This study expands on the various aspects of the IPO procedure influenced by political affiliations. Particularly, this study conducts an examination of how political connections impact underpricing, investment attraction from retail investors, selection of prestigious underwriters, increased underwriter subscriptions, and the associated costs and fees. By elaborating on each of these dimensions, this study provides a more nuanced understanding of the effects of political affiliations on the IPO process in China.

The findings reveal a significant and positive relationship between political connections and various aspects of IPO activity. Specifically, political connections are associated with higher levels of underpricing, greater subscription rates, the attraction of prestigious underwriters, and increased underwriter subscriptions. Additionally, politically connected firms tend to incur higher floating costs and underwriting fees. Notably, the impact of political connections on IPO activity is particularly pronounced during the COVID-19 pandemic, indicating the heightened importance and trust placed by investors in government support during times of crisis. In essence,

political connections provide benefits and support for IPO firms in the context of a pandemic. Economically, the study underscores the significant role that political affiliations play in shaping the IPO landscape in China.

Overall, this study makes a valuable contribution by shedding light on the significance of political connections in the IPO market, an area that has received relatively limited attention in existing literature. Moreover, the empirical evidence provided in this study supports the notion that political connections can have notable economic implications, particularly in emerging markets where political institutions may be less developed. The findings of this study hold important implications for policymakers, investors, and underwriters alike. Policymakers can leverage these results to enhance their understanding of the role of political connections in the IPO market and formulate policies that foster fair and transparent market access. Investors and underwriters can use these findings to make more informed investment decisions and effectively manage risks.

There could be potential limitations for this study. This research focuses on the Chinese IPO market, and caution should be exercised when generalizing the results to other regions or periods with different political, economic, or regulatory environments. In addition, the political landscape is dynamic, and its implications may evolve over time. While the study considers a diverse range of aspects, it may not capture all factors that could affect the relationship between political affiliations and IPO outcomes.

Future research can explore cross-market comparisons, long-term performance analysis, and the regulatory and policy dimensions of political affiliations in IPOs in the Chinese market. Additionally, topics about micro-level case studies, investor sentiment, and international comparative studies offer promising avenues for further investigation. Besides, a separate research project specifically focusing on the Hong Kong market would be a valuable addition to the existing body of knowledge and a way to explore the potential variations in the effects of political affiliations on IPO procedures in that specific market. Finally, examining the ethical and governance implications of political affiliations in IPOs could provide valuable insights into corporate practices and market dynamics.

Appendix 1

See Table 8.

Table 8 Summary of key variable definition

Key variables	Variable definition
<i>Proxies for political connection</i>	
State Share	Logarithm value of the number of shares owned by the state government
State Owned Pct	The percentage of shares are owned by the state government
Political	Political connection dummy equals 1 if over 50% of shares are owned by the government; zero otherwise
<i>Dependent variables</i>	
First Day Return	IPO first-day return: (closing price less opening price) / opening price
Total Subscription	Logarithm value of multiple of gross oversubscription
Retail sub	Logarithm value of multiple online oversubscription (retails)
Institution sub	Logarithm value of multiple offline oversubscription (institutions)
Underwriter Reputation	Underwriter reputation dummy equals 1 if the underwriter appears in the top 15 rankings in most years in the sample period, and zero otherwise
Underwriter Sub	Logarithm value of underwriter's subscription of shares
Floating costs	The expenses associated with underwriting and issuing the shares can vary depending on the size and complexity of the offering
Underwriting fee	The compensation paid by the issuer to the underwriters for assuming the risk of purchasing the shares from the issuer and selling them to the public
<i>Control variables</i>	
Size	Logarithm value of the sum of all current and noncurrent assets before IPO
ROE	Return on equity: Net income/average shareholder equity
EBITDA	Logarithm value of EBITDA (EBITDA = Net income + Taxes + Interest expenses + Depreciation and Amortization)
Leverage	Total debt divided by equity before IPO
BM	Book-to-market ratio before IPO
Age	Logarithm value of days counting from the establishment date to the IPO date
Volatility	Average market volatility across 24 months before IPO
Ret	Average market return across 24 months before IPO
GDP	Logarithm value of average province-level annual GDP in YUAN across the sample period

Appendix 2

See Table 9.

Table 9 Data sources

Data collected	Data source	Url
Firm accounting and financial information	CSMAR Database	https://data.csmar.com
IPO related data	CSMAR Database	https://data.csmar.com
Monitoring and regulatory information	CSRC (China Securities Regulatory Commission)	http://www.csrc.gov.cn/pub/newsite
	Shanghai Stock Exchange	http://www.sse.com.cn
	Shenzhen Stock Exchange	http://www.szse.cn
IPO news and information	Bloomberg	https://www.bloomberg.com
	WIND	https://www.wind.com.cn
Macroeconomics data	National Bureau of Statistics of China	http://www.stats.gov.cn
	Central Bank	http://www.pbc.gov.cn
	China Economy	http://www.ce.cn
Underwriter Information		http://stock.jrj.com.cn
		http://westdollar.com

Appendix 3

See Table 10.

Table 10 Summary of the number of IPOs from the year 2014–2021

Year	IPO Total (1)	Proceeds (2)	Underpricing (3)	IPO exclude (4)
2014	128	66.89	162.2	119
2015	224	157.63	385.7	217
2016	249	149.61	423.5	204
2017	421	230.11	266.1	337
2018	104	202.31	200.9	74
2019	202	246.11	159.4	144
2020	445	445.57	190.1	359
2021	510	509.89	176.7	402
Total	2283	2008.12	245.5 (avg)	1856

This table reports the summary of the number of IPOs from year 2014–2021. Column 1 shows the total IPO by year. The last column presents the number of IPOs excluding finance and utility industries and these missing data. Columns 2 and 3 report proceeds and underpricing which is from Jay Ritter database. The last row of column 3 is the average underpricing

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Declaration

Conflict of interest There are no conflicts of interest to declare for this research manuscript.

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