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Local Political-Turnover-Induced Uncertainty and Bond Market Pricing

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Abstract

Using turnovers in Chinese mayoral appointments, we show that investors incorporate rising local political uncertainty into bond pricing and relocate capital from municipal corporate bonds (MCBs) and privately issued bonds (PIBs) toward bonds issued by centrally administered state-owned enterprises located in the same city. Such capital reallocation leads to higher issue spreads for MCBs and PIBs, and lower issue spreads for Central SOEs before expected turnovers. The "flight-to-local-safety" effect is strongest in cities with city commercial banks supporting local economic development, and MCB spreads increase only in cities with weak implicit government guarantees. The secondary interbank market exhibits a similar substitution effect.

Keywords: Political uncertainty, implicit government guarantee, mayoral turnover, municipal corporate bonds

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1 Introduction

Local governments rely heavily on bond markets to finance their infrastructure investments. Therefore, the determinants of municipal bond prices have attracted the interest of both public finance researchers and policy makers (?). One of the most prominent factors affecting the cost of municipal bond financing is the local political cycle (?). Local politicians substantially influence local governments' investments and resource redistributions, and thus, political turnover may introduce uncertainty into the muni-bond market.

Rational investors react to rising political uncertainty by demanding higher risk premia for holding assets with a greater exposure to such uncertainty (see, e.g., ?????). While previous researchers have documented higher muni-bond yields prior to local elections in the U.S. (?), to our best knowledge, no one has investigated the pricing impacts of political turnovers on local government bonds and local corporate bonds simultaneously. On the one hand, bond market participants may view political-turnover-induced uncertainty as increasing the riskiness of corporate bond issuers because of possible connections between issuers' business activities and local government's policies (?). On the other hand, investors with local preferences could substitute local government-affiliated bonds with corporate bonds, a swap that would effectively "crowd in" firms' bond financing.

In this paper, we probe the effects of local political cycles on local government-affliated bond prices and corporate bond prices in China. China's bond markets — the second largest in the world — and political system suit our research objectives for three reasons. First, municipal corporate bonds (MCBs) issued by local government financing vehicles (LGFV), while being legally classified as corporate bonds, are expected to receive implicit government guarantee and provide rigid payments to investors (?). In the past decade, local governments rely heavily on MCBs, and the prices of these bonds aggregate investors' opinions about local governments' riskiness (??). Second, various layers of governments in China are deeply involved in local economic activities, and local politicians have strong incentives to promote economic development (???). As a result, political turnovers are typically associated with local policy changes, which may significantly affect firms' business activities. Third, there is a broad cross section of turnovers at the prefecture level with unsynchronized timing, which allows us to exploit both the cross-prefecture variation in turnovers and the within-prefecture variation over time.

To alleviate possible endogenous concerns about some turnovers being related to mayors' performance, we focus on expected mayoral turnovers. While the policy guidance for each mayoral term is roughly five years (?), actual tenure lengths for different cities vary significantly (Figure 1). We identify the starting date of an expected mayoral turnover if the mayor has been in office longer than the historical average tenure length of cities within the same province. The pre-turnover window is defined accordingly from the starting date to the actual turnover time. The post-turnover period is set to be the six months after an expected turnover.

Preceding an expected mayoral turnover, we find a substitution effect between MCBs and corporate bonds issued by centrally administrated state-owned enterprises (central SOEs) located in the same city: the issue spread of MCBs increases by 6.8 basis points (bps) (t-statistic = 2.53) on average before an expected mayoral turnover, whereas the number of central SOE bonds decreases by 5.3 bps (t-statistic = 2.11). As a result, rising political uncertainty indeed translates into a higher financing cost of RMB 0.64 million per year for a typical MCB but lowers the funding cost by RMB 0.75 million per issue per year for central SOEs that enjoy an implicit guarantee from the central government. Meanwhile, the average issue spread of private corporate bonds increases by 6.5 bps (t-statistic = 1.92) before an expected mayoral turnover, similar as the crowding out of private investment during election years in the U.S. (?). Our findings suggest that investors flee from MCBs, which usually enjoy an implicit government guarantee from the local government during normal periods, as their exposure to political uncertainty rises during the period preceding an expected mayoral turnover. They might also buy fewer bonds issued by privately owned enterprises. Meanwhile, investors reallocate their investment to the safer central SOE bonds that are less likely to be affected by local turnover-induced political uncertainty.

While the pre-turnover "flee-from-uncertainty" effect may not be unexpected given similar findings in the U.S. (?), investors switching from local-government-affiliated bonds to bonds issued by central SOEs registered locally is not common in well-developed financial markets.

Ideally, investors can reallocate their capital to any bond on the market instead of other local bonds. We attribute such local substitution to some investors' local preferences. Specifically, city commercial banks, one major group of corporate bond investors in China, have strong incentives to keep a significant fraction of their bond holdings in local bonds because they were originally established to promote local economic development and thus have close ties to local governments as well as local firms (?). Consistent with this hypothetic channel, the turnover-induced pricing impact is stronger in bonds issued in places with city commercial banks.

If the mayoral turnover heightens investors' concerns about the continuation of the implicit government guarantee, we would expect that the turnover-induced impact on the local government's financing cost is negatively correlated with the government's commitment to such guarantee. That is, investors are more sensitive to local political turnovers if the local government has already indicated a low level of commitment. We find that this is indeed the case: the MCB issue spreads increase more before an expected mayoral turnover in cities where local governments have previously shown a weaker commitment in providing an implicit guarantee.

We also provide additional pieces of evidence on the impact of local political uncertainty on local bond pricing. First, we observe a similar substitution pattern between MCBs and central SOE bonds before expected mayoral turnovers for the secondary interbank market, although such pattern is unclear for the less institutionally-oriented exchange market. Second, the effects are stronger before high-uncertainty mayoral turnovers, during the sample period of a credit crunch, as well as during the post-2015 period when credit risk becomes a real concern for investors after the first corporate bond default.

Literature review. Our paper contributes to three different strands of the literature. First, our paper adds to the literature that studies the determinants of public finance costs through bond markets. ? is the most closely related to ours. Using U.S. gubernatorial elections as a source of political uncertainty, they find that municipal bond yields increase by 7 bps and trading demand decreases before an election. While both papers investigate how the expected turnover of a local politician affects governments' bond financing costs, their paper

does not examine the substitution effect between municipal bonds and non-municipal bonds driven by some investors with local preference, or the opposite price reactions of these two types of bonds. Recent studies on other aspects of municipal bond pricing include default risk (?), state policies toward distressed municipalities (?), external monitoring (?), social capital (?) and climate risk (?).¹ Meanwhile, several papers investigate municipal corporate bonds in China along other dimensions, including origins (?), pricing factors (?), and the implicit government guarantee (?).

Second, our paper belongs to the literature studying the effects of political uncertainty on corporate bond pricing. ? find that increases in economic policy uncertainty, measured using the EPU index (?), are associated with positive movements in credit spreads. ? extend their research to the individual firm level and find that corporate bonds issued by firms with larger political risk have higher spreads. ? document that the political uncertainty tied to U.S. presidential elections leads to a 34 bps increase on average in corporate bond spreads. Our paper uses the expected turnover of mayors in Chinese cities as an exogenous shock to local policy uncertainty and examines its impact on the pricing of local MCBs and non-MCBs.²

Third, broadly speaking, our paper belongs to the growing literature on the Chinese corporate bond markets, including the pricing determinants of corporate bonds in China (??????), monetary policy transmission and repo markets (??), and bond credit risk (??). For a comprehensive review of the recent development of Chinese bond markets, see ?.

2 Institutional details and data

In this section, we provide an overview of China's local political cycle. A grasp of the local political cycles will be useful in understanding the rationale behind our approach to choose key events and the corresponding event windows to measure political uncertainty. Next, we describe the data sources and the construction of variables used in this paper.

¹Earlier research includes ?, ?, ?, ?, ?, ?, ?, ?, and ?.

²Researchers have studied the effects of Chinese local political officials' turnover on other aspects of economic activities and firms' decisions, including R&D (?), corporate donations (?), pollution discharges (?), corporate investment (?), cash holdings (?), idiosyncratic information (?), government relationship building (?), corporate decision cyclicality (?), and sovereign CDS spreads (?).

2.1 China's local political cycles

We exploit prefecture-level mayoral turnovers to investigate the pricing impact of political uncertainty on local government-affiliated bonds and corporate bonds. China's unique political system makes prefecture-level mayoral turnovers an ideal setting for capturing exogenous changes in political uncertainty, which are relevant to an implicit/explicit government guarantee, which affects the cost of local bond financing in China.

State power in China is exercised through the Chinese Communist Party (CCP), the central government, and their local representations. The hierarchical structure of local representations comprises four administrative levels (from the highest to the lowest): province, prefecture, county, and township (?). By the end of 2020, China had 34 provinces (excluding Hong Kong, Macau, and Taiwan), 333 prefectures, 2,844 counties, and 38,741 townships.³

Each level of the hierarchy is responsible for overseeing the lower-level officials on their administrative strata. At each level, two administrative agencies — the local CCP committee and the local government — preside. Therefore, the two top officials — the CCP committee secretary and the local government chief — preside over each administrative level. The rotation and promotion of local officials are typically handled by the superior level based on a performance assessment of the local officials' tasks and targets (??). While the policy is that one term for a local official lasts for five years, and officials are allowed to take the position for at most two consecutive terms,⁴ in practice, most of the actual local chiefs' rotations happen out of the normal cycle and take place at a higher frequency (?).

The prefecture-level division is the second level of division from the top of the political hierarchy. The majority of the prefectures in China are cities that are granted the right to manage their surrounding counties.⁵ For this reason, in this paper, we will refer to prefectures and cities interchangeably. The dual political chiefs at the prefecture level are the secretary

³Source: Ministry of Civil Affairs of the People's Republic of China. Please refer to http://images3.mca.gov.cn/www2017/file/202109/1631265147970.pdf for more details.

⁴This rule is listed in the "Provisional Regulations on Terms of Cadres of the Party and Government," which was issued by the Organization Department of the Central Committee of the Communist Party of China in 2006.

⁵As of December 2019, of the 333 prefectures in China, 293 were prefecture-level cities, 30 were autonomous prefectures, and 3 were leagues. The latter two groups are designed for areas with mainly ethnic minority residents.

of city CCP committee and the prefecture-level governor, and the latter is more commonly referred to as the city mayor.

We focus on the turnover of city mayors for two important reasons. First, prefectures are the lowest rung of China's political hierarchy with the right to make local decrees and administrative regulations, but it is also the highest hierarchy that directly affects local economic affairs (?). The Reform and Opening starting in 1978 redistributed socioeconomic management powers from the central government to local governments to speed up economic growth. The 1994 tax-sharing reform gave local governments more freedom and responsibility to boost local economies (?). Thus, the local political divisions, including prefectures, have been given greater autonomy in deciding and implementing local economic policies over the past decades, such as making developmental plans, taking on debt, and launching investment projects. While CCP committee secretaries oversee personnel and party affairs, city mayors are directly responsible for daily government affairs and the implementation of economic policies (?). As a result, turnovers of city mayors are expected to directly influence local economic development and thus public financing policies (????).⁶ Second, there is a broad cross section of mayoral turnovers at the prefecture level with unsynchronized timing. Unlike political turnovers at the provincial level, which must coincide with the national political cycles, prefecture-level political turnovers have their own distinct agenda. Cities begin their political cycles at different times as they are established at different times. Further, as we explain in more detail in Section 2.2, mayors seldom finish their terms at exactly the end of the five-year cycle. These factors jointly result in the unsynchronicity in the timing of mayoral turnovers, providing better identification through both within- and cross-prefecture variations.

2.2 Expected prefecture-level political turnovers

While we expect political uncertainty to heighten in the period preceding all turnovers of mayoral appointments, some turnovers may be influenced by general economic conditions,

⁶We also conduct a similar analysis for the prefecture-level party secretaries' turnovers. We observe no evident impacts of party secretaries' turnovers on issue spreads of various types of corporate bonds, which is consistent with the belief that party secretaries are less directly involved in the implementation of economic policies comparing to mayors.

which has a direct impact on the public financing cost, leading to a potential endogeneity bias. This is less of an issue in a political setting where the turnover time is predetermined (?). For example, an unsatisfied local economic development may lead to a premature end to the mayor's term in the office while also affecting the pricing for local bonds. In addition, without information leakage, investors cannot predict unexpected turnovers, such as an early termination of a mayor's term due to the mayor's sudden death or an investigation for corruption, and thus would not price in these factors ex ante. Therefore, we only consider expected mayoral turnovers that can be somehow foreseen by market participants.

Identifying expected mayoral turnovers is not trivial. Legally, the length of one term for a city mayor is five years, and each mayor can take the position for at most two consecutive terms, but many of the mayoral turnovers do not happen at, or near, the end of the five-year (or ten-year) term (?). Figure 1 plots the distribution of tenure length for all prefecture-level mayors between 2000 and 2020. This figure clearly illustrates that the actual turnover time of a city mayor does not necessarily coincide with the end of the five-year (or ten-year) official term. Among the 1928 mayoral tenures from 322 prefecture-level cities, 77.3% of mayors have a tenure length of up to 5 years, but less than 18% of mayors experience their turnovers exactly in the fifth year, leading to a median tenure length of 3.08 years (the 10th and 90th cutoffs are 1.33 and 5.33 years, respectively). On the other hand, very few mayors reach the maximum tenure length of 10 years or beyond (0.47% of all mayors), suggesting that mayors usually do not finish in the second term even they go beyond one term.

Given the nonpredetermined nature of Chinese local political leader turnover, we cannot define pre-turnover period in the same way as in countries with predetermined elections (?). We tackle this challenge by comparing a mayor's time in office with the expected tenure length based on historical data. Specifically, for each city c and each month t, a pre-turnover dummy $Pre_{c,t}$ is set to one if the mayor has been in office longer than the historical average tenure length of all mayors within the province in which the city is located.⁷ To avoid forward-looking bias, we use the recursive provincial average of mayoral tenure as the benchmark. That is, for month t, we take the average tenure of all historical turnovers within the province

⁷We use the provincial mean instead of the city-level mean because the number of mayoral turnovers per city in our sample period is small; resulting in an inaccurate estimate on a city mayor's expected turnover.

from January 2000 to month t-1 as our dynamic benchmark. Meanwhile, the post-turnover dummy $Post_{c,t}$ is set to one for the six months after (and including) the turnover month. We then match each bond issued in city c and month t with the pre-turnover and post-turnover dummies.

Our approach is more suitable for studying how bond markets react to local political uncertainty in China, as compared to the one used in ? and ?, which fixes the pre-turnover period for an expected turnover to be the six-month window immediately preceding a mayor's turnover if the turnover takes place in the last two years for the five-year or ten-year cycle. First, investors do not know the exact timing of a turnover ex ante, and thus can only infer whether a turnover would happen in the near future based on publicly available tenure history. Our definition of the pre-turnover period is free of the forward-looking bias concern and reflects investors' expectation on the tenure length of each mayor. Second, while it is possible that some of the expected turnovers we identify may still be affected by general economic conditions, this approach allows us to minimize the potential endogeneity issue as we exploit both heterogeneities in expected tenure length across city and time. Third, the assumption of mayors completing a five- or ten-year official term is not supported by the data. Nevertheless, we show later in Section 3.7 that our findings are also robust using the alternative definitions of expected turnover window.

The data on mayors' tenure are are hand-collected from various sources, including Baidu.com, Wikipedia, and Chinese local governments' websites. Resumes of government officials contain detailed information about the timing and nature of their appointment (i.e., mayor or party secretary). We construct a full timeline of each city's mayoral turnover since 2000 and identify the corresponding pre- and post-turnover periods. We are able to identify 549 expected turnovers in our final sample from 2009 to 2020, accounting for 51% of all prefecture-level political turnovers.⁸ Note that while the post-turnover period is always six months, the length of the pre-turnover period varies across turnovers. Panel A of Table I presents summary statistics of the pre-turnover period length. On average, the actual turnover occurs 15.1 months after the current appointment reaches the average mayoral tenure within

⁸While our definition of expected turnover differs, the fraction of expected prefecture-level political turnovers is consistent with that reported by ?, who finds that 46% of mayoral turnovers are expected in a sample period from 1997 to 2013.

the same province, and the median is 14 months. In other words, the expected pre-turnover period lasts for around 1.25 years, and we are interested in the pricing effects of MCBs and other types of locally issued bonds during such period.

2.3 Bond and macroeconomic data

The main sources of the corporate bond data used in our study is WIND and China Foreign Exchange Trade System (CFETS). WIND provides data on the issue yield and other bond and issuer characteristics for both MCBs and non-MCBs.⁹ MCBs in our sample includes all MCBs that were ever-classified as MCBs by ChinaBond following (?). We obtain secondary market trading data for bonds traded in the interbank market from CFETS and trading data in the exchange market from WIND.

The credit spread is defined as the issue yield/trading yield minus the corresponding yield on the yield curve of the China Development Bank (CDB) bonds with matching maturity as of the day of issue/trade. We choose CDB bonds as the benchmark because of their better liquidity and because they have the same non-tax-exempt status as corporate bonds (?), but our main findings hold if we use Treasury bonds as the benchmark.

? document that bond defaults have spatial effects on bond prices. They document a flight-to-safety effect of MCBs and a spillover effect of privately owned enterprise (POE) bonds. To minimize the contamination of credit events on estimating the pricing impact of political turnovers, we drop the bonds issued in the city in which a local bond had defaulted in the same month. We also apply the same filter in the secondary market.

Control variables include bond characteristics, including maturity, issue size, credit ratings, and status on explicit guarantee and special clause indicators, and also include and issuer characteristics, including the issuer's size, leverage, and return on assets. In regressions of secondary market trade spreads, we also include turnover as of the day of trade to control for liquidity. As Chinese corporate bonds may experience an immediate secondary market price drop because of issuance overpricing (?), we drop the bond trading data within 90 days after

⁹Five types of corporate bonds traded on both the interbank and exchange markets are included: exchangetraded corporate bonds, enterprise bonds, mid-term notes, commercial papers, and private placement notes. See ? for more details on Chinese bond markets.

the issuance.

City-level macroeconomic variables include GDP growth and the fiscal deficit. We also include the distance from the mayor's age to age 55 as a control variable.¹⁰ Other variables include a dummy that indicates whether a city has a city commercial bank, and the ratio of local provincial transfer payment to the debt balance (???).

2.4 The sample and summary statistics

Because the issuance of municipal corporate bonds is sparse before 2009 (?), we restrict our sample period to the period from January 2009 to June 2020. We lag all variables constructed using issuers' financial statements and city-level macroeconomic data by six months to account for the delay in the data release. Our final sample covers 15,531 MCBs and 20,538 non-MCBs in the primary market and 11,566 MCBs and 13,840 non-MCBs in the secondary market. We winsorize bond issue/trade spreads at the 1st and 99th percentiles.

Table I reports the summary statistics of key variables of bond issuance in the primary market, measured at the bond level.¹¹ A detailed definition of the variables can be found in Appendix Table A1. Panel B of Table I presents the summary statistics for MCBs and non-MCBs. We find that MCBs on average have a lower issue spread (1.83%) than non-MCBs (2.01%) but a longer maturity (3.86 vs. 2.34 years). This difference in issue spreads is likely a result of an implicit government guarantee for MCBs, as argued by ?. MCBs and non-MCBs are comparable in issue size at around RMB 0.9 billion. Having an explicit guarantee clause is not common for either type of bonds: only about 12% of bonds have a guarantor. Issuers of MCB and non-MCBs issuers at 3.21% compared to 1.44% for MCBs issuers. This difference is likely because LGFVs, issuers of MCBs, usually do not generate business revenues but only receive fiscal transfers (??). Finally, there is no evident difference between MCB issuers and non-MCB issuers in terms of their cities' macroeconomic conditions, such as GDP growth and fiscal deficit. Panel C of Table I presents the summary statistics for non-MCBs

¹⁰The literature (?) shows that the promotion incentive of local officials leads to an inverted U-shaped relationship between age and administrative intervention around the age of 54/55.

¹¹Table A2 in the appendix presents summary statistics for the secondary market.

by issuer type, including central SOEs, local SOEs, and POEs. Bonds issued by central SOEs have the lowest issue spread (1%), followed by local-SOE bonds (1.8%) and POE bonds (2.7%). While only 4% of central SOE bonds have a guarantor, about 13% of local SOE and POE bonds have a guarantor, suggesting the advantage of central SOEs in issuing bonds to finance. Lastly, POE issuers have a significantly higher ROA (4.9%) than central SOEs (2.8%) or local SOEs (2.3%).

3 The impact of mayoral turnovers on local bond prices

In this section, we first develop our testing hypotheses, describe our research design, and then present the main empirical findings. We conduct our analyses using the issue spread, provide possible channels that explain the pricing effect, and present evidence using the trade spread.

3.1 Hypothesis development

? predict that electoral uncertainty generates a political risk premium in securities markets when the associated political risk is undiversifiable. In their model, a positive political risk premium arises from the fact that a newly elected official can adopt new economic policies that affect the profitability of local firms. Empirically, they find that put options carry a premium prior to U.S. presidential elections because they provide protection against the political uncertainty generated by these elections. More recently, ? find that the issue spread and trade spread of munis increase before the predetermined U.S. gubernatorial elections.

We expect the prediction of a political risk premium in securities markets prior to elections in the U.S. to be extendable to higher issue yields for MCBs before the local mayoral turnovers in China for three reasons. First, there is a close link between local government investments, which are conducted by LGFVs and financed by MCBs, and the economic policies of the local mayor. Local governments in China are deeply involved in economic activities, and mayors are granted significant power and autonomy in deciding on local economic policies. Therefore, turnovers of mayors can introduce a large degree of uncertainty into LGFVs and cause the MCB risk premium to increase. Second, the political risk associated with prefecture-level mayoral turnovers is difficult to diversify for investors with local preferences. The economic policies that a local mayor decides to implement can affect all firms and projects in the area; meanwhile, the existence of local investors such as city commercial banks makes the local bond market segmented from the aggregate bond market to some extent. Both factors contribute to a possible rising political risk premium of government-affiliated MCBs before an expected mayoral turnover, and the latter force could also push capital from MCBs to some other type of local bonds.

Third, because of the implicit government guarantee provided by the local government, an MCB can be considered as a portfolio consisting of a risk-free bond and a short position in a put option of the local government assets. If the prediction in ? holds in the MCB market, then the pre-turnover issue spread of MCBs should increase to reflect the decrease in value in the embedded short put positions.

In light of the above discussions, we propose our first hypothesis about the risk premium of MCBs in the rising political uncertainty associated with local mayoral turnovers:

H1 (the political risk premium of MCBs hypothesis): MCBs have higher issue spreads because of heightened political uncertainty preceding an expected local mayoral turnover.

The impact of the political-turnover-induced uncertainty on the pricing of other non-MCB local corporate bonds can be heterogeneous across different types of corporate bonds, depending on the link between issuers' business activities and local government policies. On the one hand, bond market participants may view the political-turnover-induced uncertainty as a source of increased risk for some local corporate bonds and thus require a higher return compensation. On the other hand, bonds issued by companies whose profitability is less affected by the local government's policies, either directly or via other form of government guarantee that is independent of the local government, would be less subject to rising political uncertainty. Corporate bonds issued by private firms fit into the first category, while corporate bonds issued by central SOEs fit into the second category. For local private bonds, their businesses could be related to local economic policies, and the risk premium would therefore increase before a mayoral turnover. Central SOE bonds enjoy a stronger implicit government guarantee relative to other non-MCBs thanks to their central government ownership as well as their potential benefit from the "too big to fail" effect (see, e.g., ??).

Furthermore, as noted recently in ?, the geographical segmentation of the Chinese financial system is reflected in limited capital mobility and systematic dispersion in returns to capital across regions (see, e.g., ??). In such a geographically segmented market with investors who have local preferences, we expect that investors may substitute MCBs with bonds issued by central SOEs, which are located in the very same city but are less subject to political risk, preceding a local mayoral turnover. We form the following two additional hypotheses on the impact of political-turnover-induced uncertainty on bond prices.

H2a (political risk premium of non-MCBs hypothesis): The political-turnoverinduced uncertainty has differential impacts on non-MCB corporate bonds.

H2b (local flight-to-safety hypothesis): Investors substitute investment in MCBs with investment in local corporate bonds issued by central SOEs where the operation and implicit guarantee are less subject to political uncertainty during the pre-turnover periods.

3.2 Research design

To investigate the impact of political-turnover-induced risk on the pricing of MCBs and non-MCBs, we use a multivariate model at the bond level as follows:

$$y_{i,j,c,t} = \beta_{pre} Pre_{c,t} + \beta_{post} Post_{c,t} + \gamma' X_{i,t} + \delta' W_{j,t} + \eta' Z_{c,t} + \alpha_{yq} + \alpha_p + \epsilon_{i,j,c,t}, \tag{1}$$

where *i*, *j*, *c*, and *t* denote the bond, issuer, city, and time of issue, respectively. The variables $Pre_{c,t}/Post_{c,t}$ are indicator variables for a bond issued in city *c* and month *t* in the pre-/post-turnover period as defined in Section 2.2. The variable $X_{i,t}$ is a vector of bond-level control variables that consists of the following: (1) maturity, (2) the natural logarithm of issuance amount in RMB billion, (3) three indicator variables for a bond's credit rating (AAA,

AA+, and AA),¹² (4) an indicator variable for a third-party guarantor, and (5) indicator variables for five covenants commonly adopted in corporate bonds.¹³ The variable $W_{j,t}$ is a vector of issuer characteristics measured in the financial year ending at least six months before the issue date, including (1) the natural logarithm of total assets in RMB billion, (2) leverage measured as total liabilities over total assets, (3) return on asset, and (4) an indicator variable for SOE-type issuers. The variable $Z_{c,t}$ is a vector consisting of city-level macroeconomic variables in the fiscal year ending at least six months before the issue date, including (1) GDP growth and (2) the fiscal deficit. Finally, we include year-quarter fixed effects (α_{yq}) and province fixed effects (α_p).¹⁴ We include the same set of control variables in all tests, unless specified. The key parameters of interest are β_{pre} and β_{post} and they capture the effects of expected mayoral turnover on issue spreads of local bonds issued during the pre- and post-turnover period.

We further split our non-MCB sample into corporate bonds issued by centrally administrated SOEs (central SOEs), locally administrated SOEs (local SOEs), and privately owned enterprises (POEs). The split reflects the cross-sectional heterogeneity in the level of implicit guarantee that non-MCBs receive: bonds issued by central SOEs enjoy an implicit guarantee provided by the central government; bonds issued by local SOEs enjoy an implicit guarantee from the local government; and corporate bonds issued by POEs do not enjoy an implicit guarantee, except that all corporate bonds in China are expected to provide a rigid payment before 2015. We conduct the regressions using subsamples of MCBs and each category of non-MCBs separately to paint a full picture of the pricing impact of rising political uncertainty on corporate bond prices in Chinese bond markets.

¹²We use dummy variables to capture the non-linear relation between credit rating and creditworthiness following ?. Following ?, we classify bonds' ratings into four categories and the dummy indicating bonds with ratings below AA is dropped as a benchmark.

¹³The five covenants are adjustable, callable, extendable, putable, and sinkable.

¹⁴In our baseline results, we do not include city fixed effects due to the potential multi-collinearity problems. For 58 (about 18%) of 322 prefecture-level cities in our sample, there is no bond issuance that falls in the pre- or post-turnover window of the expected mayoral turnovers. A multi-collinearity problem may arise between the prefecture-level fixed effects and our key variables of interest, Pre (*Post*), for these cities. In the untabulated results, we show that the main findings remain qualitatively unchanged under an alternative model specification that includes prefecture-level fixed effects.

3.3 Main results

Table II reports the main results of estimating the multivariate regression model in the primary market. We report the estimates for β_{pre} and β_{post} along with the estimated coefficients for the control variables. Columns (1) and (2) present the issue spread reactions of MCBs and non-MCBs around the expected mayoral turnovers. First, consistent with our conjecture, MCBs issued during the pre-turnover period have higher spreads than those issued during normal times. The increase in the issue spread is 6.8 bps (*t*-statistic = 2.53), which represents an additional annual cost of RMB 0.64 million for a typical MCB issued in our sample period.¹⁵ This finding supports our main hypothesis H1 that the risk associated with localpolitical-turnover-induced uncertainty is priced in the locally issued MCBs in the primary market, and investors walk away from local MCBs that are most likely to be exposed to heightened uncertainty caused by an upcoming mayoral turnover.¹⁶ By contrast, we do not observe any pre-turnover reaction of issue spread for non-MCBs in aggregate.

Second, the pre-turnover issue spread reactions exhibit different patterns when we split non-MCBs into three categories based on the issuer type (columns 3 to 5). The spreads of bonds issued by central SOEs decrease by 5.3 bps (t-statistic = 2.11) in cities where mayoral turnovers are expected to take place. This effect translates into annual savings of RMB 0.75 million per bond issue for central SOEs. In addition, issue spreads for bonds issued by local SOEs also decrease by 3.5 bps during the pre-turnover period despite such effect being statistically insignificant. By contrast, POE-issued bonds experience a marginally significant increase of 6.5 bps (t-statistic = 1.92) in the issue spread before an expected local mayoral turnover. The findings support our hypothesis H2a that expected mayoral turnovers have differential impacts on bonds issued by different types of local firms.

Note that while it is not surprising that the issue spreads of POE bonds increase prior to

 $^{^{15}}$ MCBs issued in the pre-turnover period have an average issue size of RMB 938 million, which is similar to the average size of MCBs (RMB 887 million) issued during normal times outside of the turnover window.

¹⁶The average maturity of MCBs and the average length of mayoral tenure in our sample are similar (3.86-year v.s. 3.29-year). One potential concern is that the increase in issue spreads for MCBs issued during the pre-mayoral-turnover period is likely driven by a rise in MCBs' rollover risk rather than a rise in political uncertainty. We rule out this possibility by showing in an untabulated analysis where we regress the past-12-month net issuing amount on turnover dummies that there a no significant increase in the net issuance of MCBs prior to expected turnovers.

an expected mayoral turnover, it is not trivial to understand why investors would "crowd in" bonds issued by locally registered but centrally administrated SOEs even if they enjoy a stronger implicit government guarantee directly from the central government. In a developed market without market frictions or inefficiencies, investors do not necessarily replace local riskier bonds with local safer bonds because they can invest in any bonds, local or non-local, where price satisfies the pricing kernel. Columns (3) and (4) in Table II show that, in contrast, investors in Chinese bond markets seem to prefer investing in bonds issued by local SOEs, especially those issued by central SOEs, which are immune to the risk associated with local political turnovers in light of the guarantee they receive from the central government. This supports our "substituting MCBs with central SOE bonds" hypothesis H2b. We will come back to this point in Section 3.4.

Third, the coefficients for the *Post* indicator, across all subsamples, are statistically insignificant. This finding highlights the relevance of time in studying the political uncertainty risk: the issue spreads do not change in a systematic pattern after the next mayor is appointed (i.e., upon resolution of the political-turnover-induced uncertainty). The lack of bond market reactions after a mayoral turnover takes place is consistent with ?, who also only document a sharp increase in U.S. municipal bond yields before gubernatorial elections.

The variables $Pre_{c,t}$ and $Post_{c,t}$ are defined according to expected mayoral turnovers because while unexpected turnovers may also induce higher political uncertainty, bond market investors cannot foresee such unexpected turnovers and react accordingly. Therefore, we do not expect MCB yields to increase or local SOE bond yields to decrease before unexpected turnovers. Table III presents the results. We find that neither MCBs nor non-MCBs experience any significant change in the issue spread in the period before or after an unexpected mayoral turnover. For the three subsample analyses, only bonds issued by central SOEs experience a higher issue spread before the unexpected turnover. The placebo test highlights the importance of the anticipated nature of expected political turnovers on local bond prices.

3.4 The local substitution channel

Results from the baseline regression show that investors price in the turnover-induced political risk in the pre-turnover period by demanding a higher issue spread for local MCBs, but surprisingly, are willing to pay a higher price for bonds issued by central SOEs located in the same city. While it is natural to expect that investors may move away from local MCBs that could be affected by local political turnovers (similar to that documented by ?), it is not straightforward to understand why investors switch from local-government-affiliated bonds to other types of *locally* issued bonds. In a well-developed financial market, investors can reallocate funds from local government bonds with rising political risk to any bond in the market, and thus not necessarily to other local bonds and push up the prices of these bonds. The observation of such substitution effect between local MCBs and central SOE bonds reflects the possibility of market segmentation; that is, some investors prefer allocating capital to locally issued bonds after moving money out of the affected local MCBs.

One possible explanation is the local preference by a certain type of investor.¹⁷ In the context of Chinese bond markets, city commercial banks (CCBs), which are usually only allowed to take deposits and extend loans within the city where they are located (?), are likely to serve as this type of investor with a strong local preference. Historically, CCBs are set up by local governments for promoting local economic development (?). Compared to their larger counterparts, such as state-owned banks or joint-venture banks, CCBs are heavily influenced by local governments in their daily operations. As a result, CCBs provide financing to local firms, including LGFVs, SOEs, and POEs.

Anecdotal evidence suggests that CCBs have a strong local preference. A large fraction of loans they originate are extended toward local entities. For example, according to the annual report of Nanjing Bank, a CCB located in the city of Nanjing, 31.43% of its loans are going to entities registered in Nanjing. Beijing Bank has an even higher fraction: 45% of its total loan balance goes to entities in Beijing.

While we do not have data on individual CCBs' holding of local bonds, CCBs do hold a

¹⁷Many papers document both retail and institutional investors' local preference for stocks. See, for example, ?, ?, ?, ?, ?, ?, ?, and ?, among others.

significant fraction of corporate bonds: 20.1% of enterprise bonds (most of which are MCBs) are held by CCBs in 2012, and this number grows to 37.3% in 2020. Among all deposit-taking financial institutions, CCBs hold about 19.1% of corporate bonds, including enterprise bonds, medium-term notes, and commercial papers, as of 2020. Additionally, since 2011, CCBs have surpassed large state-owned banks as the financial institutions with the largest trading amounts in the Chinese bond market. In 2020, CCBs account for 56% of the corporate bonds trading amounts of commercial banks in the interbank market. Therefore, as long as CCBs have decent holdings and are marginal, i.e., they are likely to rebalance their portfolios across bonds issued by different types of local entities before an expected local mayoral turnover, local bond prices should satisfy their pricing kernel in equilibrium (in a similar spirit of ?) despite them not being the only investors in Chinese corporate bond markets. Not all cities have CCBs however, so a testable hypothesis is that, while the "MCB adversion" effect is comparable across mayoral turnover cities with or without a CCB, the "flight-to-safety" effect to central SOE bonds should only emerge in cities with a CCB.

Table IV presents the results using two subsamples of bonds issued in cities with/without a CCB. We find that the pattern of a higher financing cost for MCBs and a lower financing cost for central SOE bonds in the pre-turnover period is only observed in the with-CCB sub-sample. In these cities, the average issue spreads of MCBs increase by 5.6 bps (*t*-statistic = 2.19) in the pre-turnover period; meanwhile, the issue spreads of central SOE bonds decrease by 6.7 bps (*t*-statistic = 1.8) on average. By comparison, we only observe an increase in MCBs' issue spreads in the pre-turnover period (12.8 bps, *t*-statistic = 2.68) in the without-CCB subsample, but no statistically significant decrease for central SOE bonds.¹⁸ Interestingly, the increase in POE bonds' issue spreads is only observed in cities with CCBs (8.6 bps, *t*-statistic = 2.1). One possible explanation is that CCBs also invest heavily in local POE bonds, and when a mayoral turnover is expected to take place, these local investors also avoid investing in local POE bonds, thus decreasing the demand for these bonds.

¹⁸We also conduct sub-sample analysis using the proportion of CCBs' branches within a city as an alternative proxy for the intensity of CCBs' local preference. The result shows that the decrease in central SOE bonds' spread during the pre-turnover period concentrate in cities with stronger local investment preference, which is consistent with Table IV. This result is not tabulated in the main draft and is available upon request due to its shorter sample (February 2013 to June 2020).

Our results provide evidence of local substitution, driven by CCB investors' preference for local corporate bonds, being one possible channel for the observed "selling MCBs and buying central SOE bonds" phenomenon. It is important to point out that by no means do we attempt to attribute local preference as the sole driver behind the observed price impact. It is also possible that such different price responses of MCBs and central SOE bonds might be driven by the different investment behavior of two separate groups of investors before local political turnovers. Given data limitations, it is beyond the scope of our study to investigate all the other possible channels.

3.5 Effect of governmental commitment to guarantee

In Section 3.3, we document a clear pattern of a higher financing cost for MCBs accompanied by a lower financing cost for central SOE bonds during the period before the expected mayoral turnovers with rising political uncertainty. We attribute such local "flight-to-safety" substitution effect to investors with local preferences — for example, those CCBs, and some other investors alike, that have strong incentives to invest in local bonds.

The contrasting effects on MCBs and central SOE bonds could be driven by different levels of the implicit guarantee they effectively receive. In a world where investors believe that the local government will firmly commit to provide a guarantee for both MCBs and central SOE bonds in case of a credit event, we should see no rise in MCBs' credit spreads when political uncertainty rises. On the other hand, investors are more likely to be sensitive to political risk when a local government has indicated a low level of commitment to providing an implicit guarantee. If concerns about local governments' commitment to providing a guarantee to MCBs are behind what we observe, the pattern should be more prominent for bonds issued in areas with a lower governmental commitment to guarantee.

To test this conjecture, we conduct a subsample analysis on bonds issued in cities with high and low levels of a governmental commitment to an implicit guarantee. Following the prior literature (???), we measure the governmental commitment of an implicit guarantee using the transfer payment ratio, which is defined as the central-to-local transfer payment amount divided by local government debt outstanding. A high transfer payment ratio indicates a strong government intervention and thus a commitment to an implicit guarantee. We divide bonds issued in different cities into two groups based on the median transfer payment ratio across all cities as of the issue year.

Table V presents the results. We find that the higher MCB issue spreads before expected mayoral turnovers are only observed in cities with low transfer payment where the local government has shown a low level of commitment to provide a guarantee. Specifically, the issue spreads of these MCBs' increase on average by 10.6 bps (t-statistic = 2.30). On the other hand, there is no significant change in the pre-turnover issue spread for MCBs issued in cities with high transfer payment. At the same time, we observe an economically and statistically significant "flight-to-safety" effect before expected mayoral turnovers in both central SOE bonds (-6.1 bps, t-statistic = 2.54) and local SOE bonds (-12 bps, t-statistic = 3.3) issued in cities with a strong governmental commitment to provide an implicit guarantee. Lastly, while we observe a large increase in the pre-turnover issue spread of central SOE bonds (35.1 bps, t-statistic = 3.27), the effect is driven by a small subsample of fewer than 400 bonds. Overall, the results in this section suggest that investors do take local governments' commitment to an implicit guarantee into consideration when making investment decisions in corporate bonds before expected mayoral turnovers.

3.6 Secondary market trading spreads

So far, we have provided evidence on the impact of prefecture-level political turnovers on the financing cost of MCBs and different types of non-MCBs in the primary market. In this section, we utilize trading data to examine how investors respond to turnover-induced political risk in the secondary market. We test the baseline regression model, in Eq.(1), using bonds' monthly trade spreads as the dependent variable. Following ?, we compute daily trade yield spreads of individual bonds and aggregate to a monthly frequency weighted by RMB transaction volume. We divide our sample into two groups based on whether the trade takes place in the interbank market or the exchange market. These two markets have different market participants and trading rules, and thus the impact of expected mayoral turnovers on bond prices could vary.¹⁹ Following ?, we use the interbank market trading data to compute credit spreads for bonds listed on the interbank market including the ones that are dual-listed on both the interbank market and the exchange market. For the exchange market data, we keep those bonds traded on the exchange only. Separating bonds traded on these two markets allows us to better understand whether and how political uncertainty affects secondary market trading behaviors in markets with different participants.

Table VI presents the results for interbank market trading (Panel A) and exchange market trading (Panel B). We find that investors in the interbank market view expected political turnovers as an important risk in pricing MCBs. These investors, typically large, sophisticated financial institutions, demand economically and statistically higher trade spreads for MCBs traded in the pre-turnover period (8 bps, t-statistic = 4.64). Similar to what we observe in the issuance market, the rise in trade spreads in the pre-turnover period is accompanied by a decrease in the trade spreads for the central SOE bonds (5.4 bps, t-statistic = -2.19). Meanwhile, we observe no significant change in the trade spreads for bonds issued by local SOEs or POEs.

The substitution between MCBs and central SOE bonds in the institutions-dominated interbank market also helps rule out the concern of LGFVs' endogeneous decision to implement and finance high-risk projects using MCBs before mayoral turnovers. Unlike the primary market in which the timing of bond issuance can be endogenously chosen, the secondary market trading reflects investors' perceived riskiness associated with the outstanding MCBs and other local bonds.

We find a different pricing pattern, however, for bonds traded only on exchange market. First, there is no significant pre-turnover change in the trade spread for MCBs or central SOE bonds. Second, local SOE bonds and POE bonds exhibit lower trade spreads during the pre-turnover period, and the effect is -10.6 bps (t-statistic = 1.7) for the former and -22.6 bps (t-statistic = 2.61) for the latter. Third, trade spreads for both central SOE bonds (16.5 bps, t-statistic = 2.88) and local SOE bonds (24.5 bps, t-statistic = 3.46) are higher in

¹⁹The interbank market features commercial banks and large institutions while participants in the exchange market are mainly non-bank financial institutions. For details on these two bond markets, see, for example, ? and ?.

the six-month period immediately following a mayoral turnover; the later response of the exchange market investors suggests that these smaller investors only react to rising political uncertainty after the mayoral turnover takes place. Note that only 6.3% of MCBs and 10.8% of central SOE bonds in our sample are traded on the secondary exchange market, which may explain the inconsistency of its empirical pattern.

Overall, these results suggest that the trading behaviors of large, sophisticated institutional investors in the interbank market result in a "flight-to-safety" pattern in trade spreads similar to the one observed in issue spreads. Investors for bonds traded in the exchange market, however, do not reallocate their positions during the pre-turnover period.

3.7 Additional results

This section provides a number of additional results, including those using the alternative definition of expected turnovers and the associated pre-turnover window, using subsamples of turnovers in cities with high and low levels of political uncertainty, using different subperiods, and using subsamples of bonds issued by listed v.s. unlisted issuers.

Alternative definition of expected turnovers. In this paper, we identify expected mayoral turnovers based on historical tenure term and set the pre-turnover window accordingly. Our approach is different from that used in ? and ?, which defines expected turnovers as those that take place in the last two years of a mayor's first or second term (the 4th/5th/9th/10th year) and sets the pre-turnover period to be a fixed six-month window prior to the actual turnover time. As a robustness test, we repeat the baseline regression using this alternative definition of the expected mayoral turnover and the corresponding pre-turnover indicator $Pre_{c,t}$. Panel A of Table VII presents the results. We find that the effect of mayoral turnover on the financing cost of MCBs and central SOE bonds still holds: the average issue spread for MCBs increases by 10.2 bps (t-statistic = 2.58) in the six-month window prior to an expected mayoral turnover, while the "flight-to-safety" effect lowers central SOE bonds' issue spread by 7.8 bps (t-statistic = 2.01). Meanwhile, we do not see any significant change in the issue spread for POE bonds. While the two approaches deliver a relatively large overlap (57.4%) in the expected turnovers they identify, our approach is free of forward-looking bias and thus more appropriate for studying the pricing effect.²⁰

Mayoral turnover uncertainty. If the turnover-induced political uncertainty is the underlying driving force of MCBs' higher issue spreads in the pre-turnover window, we expect the effect to be stronger for turnovers that would result in greater uncertainty. To test this conjecture, we classify sample cities into two groups based on the probability of the next mayor being from the very same city, which is measured by the city-level percentage of historical turnovers that involve a local successor.²¹ Usually, a local successor is more likely to have a smooth transition and thus reduces turnover-induced political uncertainty. Panel B of Table VII shows that the increase in MCBs' issue spreads and the decrease in central SOE bonds' issue spreads are large and statistically significant only in the high-uncertainty-turnovers group, suggesting that the political risk premium is higher for mayoral turnovers with a higher probability of future policy uncertainty. By contrast, we do not see any clear pattern of issue spread changes before low-uncertainty mayoral turnovers where investors expect a higher chance of having a local successor.

Subperiods. If the substitution effect between MCBs and central SOE bonds before expected local mayoral turnovers is driven by investors' belief about differences in the extent of the government guarantee they receive, we would expect such effect to be stronger during a credit crunch period. We split our sample period into a credit boom period and a credit crunch period according to the median value of the monthly growth rate of People's Bank of China's Aggregate Financing to the Real Economy. Results using two subsamples are presented in Panel C of Table VII. We find that the effects of expected mayoral turnovers on the financing cost of MCBs and central SOE bonds mainly arise from the credit crunch period. In addition, POE bonds also experience a large spread increase before a local mayoral

²⁰A combination of expected turnovers defined under our new approach and a fixed six-month pre-turnover window as in ? and ? also produces quantitatively similar pricing effects. Results are available upon request.

 $^{^{21}}$ A city is classified as being in the high-uncertainty turnover group if the percentage of local successors is below the median value across all cities. All turnovers of a given city are then classified as being in high- or low-uncertainty groups. Under this classification, 57% of all mayoral turnovers are classified as high-uncertainty ones, and the remaining are classified as low-uncertainty ones in our sample.

turnover. In contrast, the turnover-induced rise in political uncertainty tends to have no pricing impact on investors' substitution behavior across different bond types when the credit market is in a boom period.

In addition, the local substitution effect should be stronger after 2015 when investors' belief about a rigid repayment was broken and credit risk became a real concern for bond market investors in China (see, e.g., ??). Panel D of Table VII presents the results using the pre- and post-2015 subperiods. Unsurprisingly, our findings only hold for the post-2015 subperiod, which is consistent with ?, who find that corporate bond yields in China only start to reflect investors' perception on credit risk in recent years when actual defaults take place.

Issuer type. Previous literature has shown that investors take the listing status of the bond issuing company into consideration when pricing corporate bonds (?). We repeat our main analyses by splitting the sample into listed and non-listed issuers within each bond category. Panel E of Table VII presents the results. Most MCBs are issued by unlisted LGFVs, and their pre-turnover spread increase is similar (6.4 bps with *t*-statistic of 2.39) to the full sample result. The "flight-to-safety" effect observed in central SOE bonds is similar across listed and non-listed issuers. In addition, only POE bonds issued by non-listed firms experience an economically and statistically significant increase in the yield spread, suggesting that bond market investors view a local mayoral turnover as having a negative impact on these vulnerable non-listed POEs.

4 Conclusion

Political turnovers can induce substantial political uncertainty, which in turn, could prominently influence the cost of local public and private financing. Our paper investigates the pricing effects of political uncertainty on local-government-affiliated MCBs and other types of locally-issued corporate bonds simultaneously by exploiting the expected turnover of prefecture-level mayors in China. We show that the mayoral-turnover-induced political uncertainty has a strong impact on bond prices of MCBs and central SOE bonds: the average issue spread of MCBs increases by 6.8 bps and that of central SOE bonds decreases by 5.3 bps before an expected mayoral turnover. We highlight that rising political uncertainty can induce the "substitution" between MCBs and central SOE bonds in Chinese bond markets, in contrast to the simple "flee-from-uncertainty" response of government-affiliated-bonds documented in the well-developed U.S. market. Investors view central SOE bonds, of which the implicit guarantee mainly comes from the central government, as a potential "safe harbor" when local political uncertainty rises. The geographically segmented bond markets in China, as a result of some marginal investors with local preference (e.g., city commercial banks) being in presence, provide grounds for such local substitution. Our findings deepen the understanding of the interaction between market force and government intervention in the most fast-growing bond market, and how such interaction shapes local firms' bond financing and investor behavior.

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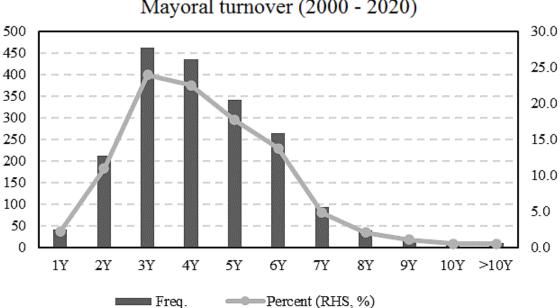
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Figure 1: Distribution of prefecture-level city mayors' tenure length

This figure plots the distribution of tenure length of all prefecture-level city mayoral turnovers that occurred in 2000–2020. The bar chart shows the number of mayoral turnovers that occurred in each year since the start of a mayor's tenure. The gray line plots the corresponding percentage as a fraction of the total number of turnovers. The data on prefecture-level mayors' tenure are hand-collected from various sources, including Baidu.com, Wikipedia, and Chinese local governments' websites.



Mayoral turnover (2000 - 2020)

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mayoral turnovers in terms of length. Panel B presents summary statistics for municipal corporate bonds (MCBs) and non-municipal corporate bonds (non-MCBs). Panel C presents summary statistics for different types of non-MCBs: bonds issued by central SOEs, local SOEs, and POEs, and ROA; and city characteristics include GDP growth (%), fiscal deficit scaled by GDP, and distance from mayor's age to age 55. The sample period is January 2009 to June 2020. All issuer and city variables are merged with bond data using a lag of six months to account for the delay in This table presents summary statistics. Panel A presents summary statistics for the pre-turnover window associated with the expected prefecture-level respectively. The pre-turnover window is the period exceeding the average tenure and before the actual turnover. Bond-level variables include issue spread (%), maturity, guarantee covenant indicator, and amount (RMB billions); issuer-level variables include issuer size (RMB billions), leverage, data release. Summary statistics include the number of observations, mean, standard deviation, median, and the 10th and 90th percentiles for all variables.

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Panel A:	

	Mean	STD	P10	P25	Median	P75	P90
Pre-turnover window length (months)	16.8	12.4	e.	2	14	25	32

Panel B: Summary statistics of MCBs and non-MCBs

			MCB					Non-MCB		
			N = 15531	31				N = 20538	~	
	Mean	STD	P10	Median	P90	Mean	STD	P10	Median	P90
[ssue spread (%)	1.83	1.03	0.67	1.65	3.36	2.01	1.29	0.61	1.69	3.92
Maturity	3.86	2.49	0.74	4.00	7.00	2.34	1.95	0.57	1.00	5.00
Guarantor	0.12	0.33	0.00	0.00	1.00	0.12	0.32	0.00	0.00	1.00
Issue amount (RMB billion)	0.89	0.60	0.30	0.80	1.50	0.93	0.86	0.25	0.60	2.00
Issuer size (RMB billion)	57.50	78.22	8.50	30.62	141.80	74.29	120.50	5.01	29.63	213.70
everage	0.56	0.15	0.35	0.59	0.73	0.63	0.15	0.43	0.65	0.80
ROA (%)	1.43	1.65	0.26	1.02	3.18	3.22	3.72	0.13	2.35	7.38
∆GDP (%)	8.96	2.47	6.80	8.40	12.22	9.17	2.94	6.50	8.50	13.20
Fiscal dèficit	0.05	0.06	0.00	0.04	0.12	0.04	0.06	0.00	0.03	0.10
Mayor_age_dist	3.00	2.93	0.00	2.00	7.00	2.83	2.46	0.00	2.00	6.00

Panel C: Summary statistics of non-MCBs by type

			Central SOE					Local SOE					POE		
			N = 2482					N = 11289					N = 6767		
	Mean	STD	P10	Median	P90	Mean	STD	P10	Median	P90	Mean	STD	P10	Median	P90
Issue spread (%)	1.01	0.75	0.25	0.89	1.96	1.82	1.19	0.60	1.51	3.65	2.68	1.27	1.10	2.59	4.40
Maturity	1.91	1.80	0.49	1.00	5.00	2.47	2.09	0.49	1.00	5.00	2.27	1.71	0.74	1.00	5.00
Guarantor	0.04	0.20	0.00	0.00	0.00	0.13	0.33	0.00	0.00	1.00	0.13	0.33	0.00	0.00	1.00
Issue amount (RMB billion)	1.33	1.27	0.30	1.00	3.00	0.97	0.78	0.30	0.80	2.00	0.73	0.73	0.20	0.50	1.50
Issuer size (RMB billion)	137.10	192.70	9.52	56.28	287.40	78.22	103.30	5.88	34.06	231.70	44.69	101.30	3.34	19.58	101.20
Leverage	0.69	0.13	0.52	0.71	0.84	0.64	0.16	0.42	0.66	0.81	0.60	0.14	0.42	0.62	0.77
ROA (%)	2.79	3.09	0.09	2.32	5.98	2.28	3.03	0.02	1.50	5.56	4.92	4.33	1.21	3.91	9.55
$\Delta GDP(\%)$	9.46	3.49	6.20	8.80	13.90	9.03	3.06	6.30	8.31	13.22	9.29	2.48	6.94	8.80	12.70
Fiscal deficit	0.04	0.04	0.01	0.03	0.07	0.05	0.06	0.00	0.03	0.11	0.04	0.08	0.00	0.03	0.08
Mayor_age_dist	2.46	1.90	0.00	2.00	5.00	2.87	2.49	0.00	2.00	6.00	2.89	2.58	0.00	2.00	6.00

Table II: Impacts of expected mayoral turnovers on issue spreads

This table presents the estimated effects of expected mayoral turnovers on issue spreads of MCBs, non-MCBs, and different types of non-MCBs. *Pre* is an indicator variable that equals one if the bond is issued in the pre-window of an expected mayoral turnover, which is defined as the period exceeding the historical provincial average of mayoral tenure but before the actual turnover month, and *Post* is an indicator variable that equals one if the bond is issued in the six months immediately following an expected mayoral turnover. Control variables include bond maturity; the log value of issuance size; rating dummies; a guarantor indicator; clause indicators; issuer size, leverage, and ROA; GDP growth; fiscal deficit; and distance from mayor's age to age 55. Year-quarter and province fixed effects are included. The sample period is January 2009 to June 2020. Heteroskedasticity-consistent *t*-statistics, clustered by year-quarter, are reported in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

	MCB	Non-MCB		Non-MCB	
			Central SOE	Local SOE	POE
	(1)	(2)	(3)	(4)	(5)
Pre	0.068**	-0.003	-0.053**	-0.035	0.065*
	(2.53)	(-0.13)	(-2.11)	(-1.42)	(1.92)
Post	0.030	0.049	-0.064	0.079	0.067^{*}
	(0.49)	(1.39)	(-1.30)	(1.22)	(1.72)
Maturity	0.025***	0.008	0.045***	0.002	0.003
5	(3.24)	(0.79)	(3.24)	(0.23)	(0.20)
Ln(amount)	-0.039**	-0.132***	0.032^{*}	-0.122***	-0.165***
	(-2.21)	(-6.22)	(1.74)	(-4.92)	(-5.45)
DummyAAA	-1.882***	-1.887***	-1.213***	-1.761***	-2.322***
5	(-22.25)	(-11.44)	(-10.31)	(-11.69)	(-13.37)
DummyAA+	-1.259***	-1.234***	-0.819***	-1.232***	-1.258***
5	(-19.18)	(-10.59)	(-8.45)	(-11.34)	(-10.14)
DummyAA	-0.509***	-0.759***	-0.428***	-0.778***	-0.777***
5	(-7.52)	(-9.67)	(-3.99)	(-7.64)	(-10.99)
Guarantor	-0.074	0.256***	-0.320***	0.270***	0.164*
	(-1.53)	(3.61)	(-3.97)	(3.41)	(2.01)
Ln(Issuer size)	0.020*	0.031	-0.061***	0.006	-0.062
	(1.67)	(1.05)	(-2.94)	(0.24)	(-1.66)
Leverage	0.096	0.507***	0.167	0.237**	1.871***
0	(1.47)	(4.87)	(1.51)	(2.29)	(9.78)
ROA	0.001	-0.024***	-0.021***	-0.036***	-0.005
	(0.23)	(-6.31)	(-2.93)	(-7.60)	(-1.02)
ΔGDP	-0.047***	-0.027***	-0.007	-0.029**	-0.033***
	(-4.29)	(-3.90)	(-1.09)	(-2.69)	(-3.41)
Fiscal deficit	2.136***	1.099***	-0.178	1.778***	-0.056
	(7.83)	(3.58)	(-0.74)	(3.38)	(-0.25)
Mayor_age_dist	-0.014***	-0.006	-0.010	-0.005	-0.006
î O	(-2.89)	(-1.49)	(-1.48)	(-0.78)	(-1.14)
Constant	2.864***	3.183***	2.129***	2.863***	2.598^{***}
	(28.03)	(25.10)	(13.63)	(17.26)	(18.39)
Clause control	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	15,531	20,538	2,481	11,288	6,767
Adj. R^2	0.541	0.546	0.633	0.523	0.470

Table III: Placebo test: impacts of unexpected mayoral turnovers on issue spreads

This table presents the estimated effects of unexpected prefecture-level political turnovers on MCBs and different types of non-MCBs issue spreads, which are results of a placebo test to our main analysis. An unexpected mayoral turnover is defined as a mayoral appointment that takes place prior to reaching the average tenure length of mayoral appointments in the same province. *Pre* is an indicator variable that equals one if the bond is issued in the six months prior to the actual turnover time, and *Post* is an indicator variable that equals one if the bond is issued in the six months prior to the actual turnover time, and *Post* is an indicator variable that equals one if the bond is issued in the six months inmediately following an unexpected mayoral turnover. Control variables include bond maturity; the log value of issuance size; rating dummies; a guarantor indicator; clause indicators; issuer size, leverage, and ROA; GDP growth; fiscal deficit; and distance from mayor's age to age 55. Year-quarter and province fixed effects are included. The sample period is January 2009 to June 2020. Heteroskedasticity-consistent t-statistics, clustered by year-quarter, are reported in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

	MCB	Non-MCB		Non-MCB	
	(1)	(2)	Central SOE (3)	Local SOE (4)	POE (5)
Pre	-0.031	-0.031	0.126**	-0.061	-0.006
	(-1.47)	(-1.05)	(2.28)	(-1.37)	(-0.09)
Post	-0.035	-0.023	0.032	-0.025	-0.014
	(-1.11)	(-0.55)	(0.67)	(-0.33)	(-0.24)
Controls	\checkmark	\checkmark	ĺ√ ĺ	Ì √ Í	ĺ √ ĺ
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	$12,\!495$	15,929	1,824	8,777	5,327
Adj. R^2	0.538	0.539	0.595	0.517	0.477

Table IV: Pre-turnover issue spreads and investors' preference for local investment

This table presents the estimated effects of prefecture-level political turnovers on issue spreads of corporate bonds issued in cities with different investor preferences for local investment. Two subgroups are formed based on whether the bonds are issued in cities with or without a city commercial bank (CCB). Columns 1-4 (5-8) present results for bonds issued in cities with (without) a CCB. *Pre* is an indicator variable that equals one if the bond is issued in the pre-window of an expected mayoral turnover, and *Post* is an indicator variable that equals one if the bond is issued in the six months immediately following an expected mayoral turnover. Control variables include bond maturity; the log value of issuance size; rating dummies; a guarantor indicator; clause indicators; issuer size, leverage, and ROA; GDP growth; fiscal deficit; and distance from mayor's age to age 55. Year-quarter and province fixed effects are included. The sample period is January 2009 to June 2020. Heteroskedasticity-consistent t-statistics, clustered by year-quarter, are reported in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

		With	CCB			Without	CCB	
	MCB (1)	Central SOE (2)	Local SOE (3)	POE (4)	$\begin{array}{c} \text{MCB} \\ (5) \end{array}$	Central SOE (6)	Local SOE (7)	POE (8)
Pre	0.056^{**} (2.19)	-0.067* (-1.80)	-0.014 (-0.47)	0.086^{**} (2.10)	0.128^{***} (2.68)	-0.019 (-0.28)	0.037 (0.68)	0.025 (0.44)
Post	(0.025) (0.38)	-0.016 (-0.30)	0.088 (1.42)	(1.63)	(1.00) (0.090) (1.24)	-0.361^{***} (-3.88)	0.169 (1.05)	-0.010 (-0.14)
Controls	(0.00) ✓	(0.000)	(1·1-) ✓	(1.00) ✓	(11 <u>1</u>)	(0.00) ✓	(1.00) ✓	(011)
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	9,773	1,921	8,953	$4,\!649$	5,757	556	2,335	2,117
Adj. R^2	0.550	0.585	0.492	0.449	0.497	0.680	0.618	0.536

Table V: Pre-turnover issue spreads and government's commitment to guarantee

This table presents the effects of government's commitment to guarantee on pre-/post-turnover issue spreads. Commitment to guarantee is proxied by the transfer payment from government. Columns 1-4 (5-8) present results for corporate bonds issued in cities with a high (low) transfer payment classified using the median level each year. *Pre* is an indicator variable that equals one if the bond is issued in the pre-window of an expected mayoral turnover, and *Post* is an indicator variable that equals one if the bond is issued in the six months immediately following an expected mayoral turnover. Control variables include bond maturity; the log value of issuance size; rating dummies; a guarantor indicator; clause indicators; issuer size, leverage, and ROA; GDP growth; fiscal deficit; and distance from mayor's age to age 55. Year-quarter and province fixed effects are included. The sample period is January 2009 to June 2020. Heteroskedasticity-consistent *t*-statistics, clustered by year-quarter, are reported in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

		High transfe	r payment			Low transfer	r payment	
	MCB (1)	Central SOE (2)	Local SOE (3)	POE (4)	$\begin{array}{c} \text{MCB} \\ (5) \end{array}$	Central SOE (6)	Local SOE (7)	POE (8)
Pre	0.007 (0.24)	-0.061^{**} (-2.54)	-0.120*** (-3.30)	0.070 (1.61)	0.106^{**} (2.30)	0.351^{***} (3.27)	0.025 (0.81)	0.067 (0.94)
Post	(0.24) -0.065 (-1.46)	(-2.04) 0.044 (1.08)	-0.060	0.031	0.088	-0.235*	(0.01) 0.138^{**} (2.23)	(0.34) 0.113^{*} (1.82)
Controls	(-1.40) ✓	(1.08) ✓	(-0.81) ✓	(0.55)	(0.97)	(-1.74) ✓	(2.23) ✓	(1.82) ✓
Year-Qtr FE Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs Adj. R^2	$8,017 \\ 0.553$	$1,560 \\ 0.635$	$4,549 \\ 0.584$	$3,447 \\ 0.485$	$5,178 \\ 0.558$	$383 \\ 0.725$	$4,249 \\ 0.499$	$2,565 \\ 0.471$

Table VI: Impacts of expected mayoral turnovers on trade spreads

This table presents the estimated effects of prefecture-level political turnovers on trade spreads in the interbank and exchange markets, respectively. The dependent variable is bonds' monthly trade spreads constructed from bonds' excess yields at the daily frequency before aggregating to the monthly frequency using dollar transaction volume as weights. Panel A presents results for bonds traded on the interbank market, and Panel B presents results for bonds traded only on the exchange market. *Pre* is an indicator variable that equals one if the bond is issued in the pre-window of an expected mayoral turnover, and *Post* is an indicator variable that equals one if the bond is issued in the six months immediately following an expected mayoral turnover. In addition to the default set of controls and fixed effects, we also include bond's turnover to control for liquidity. Year-quarter and province fixed effects are included. The sample period is January 2009 to June 2020. Heteroskedasticity-consistent t-statistics, clustered by year-quarter, are reported in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

	MCB	Non-MCB		Non-MCB	
-	(1)	(2)	Central SOE (3)	Local SOE (4)	$\begin{array}{c} \text{POE} \\ (5) \end{array}$
Pre	0.080***	-0.028	-0.054**	-0.001	-0.044
	(4.64)	(-1.53)	(-2.19)	(-0.04)	(-0.88)
Post	0.045^{*}	-0.009	-0.076**	0.027	-0.013
	(1.67)	(-0.30)	(-2.54)	(0.93)	(-0.27)
Controls	ĺ √ ĺ	ĺ √ Í	ĺ √ Í	`√ ´	ĺ √ ĺ
Liquidity control	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	132,707	103,006	13,423	60,949	$28,\!634$
Adj. R^2	0.536	0.363	0.559	0.467	0.398

Panel A: The interbank market

Panel B: The exchange market

	MCB	Non-MCB		Non-MCB	
_	(1)	(2)	Central SOE (3)	Local SOE (4)	$\begin{array}{c} \text{POE} \\ (5) \end{array}$
Pre	0.009	-0.206**	-0.049	-0.106*	-0.226***
	(0.17)	(-2.13)	(-0.49)	(-1.70)	(-2.61)
Post	0.122	0.122	0.165^{***}	0.245***	-0.009
	(1.40)	(1.57)	(2.88)	(3.46)	(-0.08)
Controls	\checkmark	\checkmark	↓ ´	ĺ√ Í	ĺ √ ĺ
Liquidity control	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	$7,\!686$	36,927	3,169	11,026	22,732
Adj. R^2	0.556	0.263	0.445	0.423	0.280

Table VII: Additional Results

This table presents some additional results on the estimated effects of prefecture-level political turnovers on issue spreads of MCBs and different types of non-MCBs. Panel A presents results using the definition of expected turnovers as in ? and a fixed pre-turnover window of six months. Panel B presents the results conditional on the ex ante belief of whether the turnover is associated with high or low uncertainty. The ex ante belief is inferred from the percentage of a city's historical turnovers that involve having a successor that comes from the same city. Panels C and D present results during the credit boom/crunch period and pre-/post-2015. Panel E presents results where we further divide each type of corporate bonds into two groups based on whether or not the issuer is a listed company. Control variables include bond maturity; the log value of issuance size; rating dummies; a guarantor indicator; clause indicators; issuer size, leverage, and ROA; GDP growth; fiscal deficit; and distance from mayor's age to age 55. Year-quarter and province fixed effects are included. The sample period is January 2009 to June 2020. Heteroskedasticity-consistent *t*-statistics, clustered by year-quarter, are reported in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

	MCB	Non-MCB		Non-MCB	
	(1)	(2)	Central SOE (3)	Local SOE (4)	POE (5)
Pre	0.102***	-0.023	-0.078**	-0.034	-0.040
	(2.58)	(-0.61)	(-2.01)	(-0.81)	(-0.89)
Post	0.090	0.077**	-0.010	0.142**	0.022
	(1.64)	(2.13)	(-0.15)	(2.34)	(0.54)
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	$15,\!531$	20,538	$2,\!481$	11,288	6,767
Adj. R^2	0.541	0.547	0.633	0.523	0.469

Panel A: Alternative definition of expected mayoral turnover

Panel B: Conditional on high/low uncertainty turnovers

		Low-uncertain	ty turnovers			High-uncertaint	y turnovers	
	MCB (1)	Central SOE (2)	Local SOE (3)	POE (4)	$\begin{array}{c} \text{MCB} \\ (5) \end{array}$	Central SOE (6)	Local SOE (7)	POE (8)
Pre	0.047	0.062	0.084*	0.089	0.092***	-0.070***	-0.079**	0.012
	(1.01)	(1.08)	(1.93)	(1.63)	(3.57)	(-2.58)	(-2.16)	(0.27)
Post	0.148	-0.103	0.249**	0.051	-0.031	-0.017	0.008	0.050
	(1.40)	(-1.46)	(2.47)	(0.49)	(-0.56)	(-0.27)	(0.11)	(0.73)
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	$5,\!250$	517	3,442	1,986	10,281	1,962	7,844	4,780
Adj. R^2	0.533	0.581	0.529	0.457	0.547	0.628	0.537	0.481

		Credit boo	om period			Credit crun	ich period	
	MCB (1)	Central SOE (2)	Local SOE (3)	POE (4)	$\begin{array}{c} \text{MCB} \\ (5) \end{array}$	Central SOE (6)	Local SOE (7)	POE (8)
Pre	0.008	-0.008	-0.058*	-0.019	0.083***	-0.055*	-0.019	0.130***
	(0.23)	(-0.22)	(-1.68)	(-0.37)	(2.74)	(-1.87)	(-0.61)	(3.56)
Post	0.023	-0.051	0.080**	0.012	0.016	-0.091	0.079	0.075
	(0.71)	(-0.80)	(2.35)	(0.19)	(0.21)	(-1.12)	(0.79)	(1.59)
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	3,033	757	3,252	2,209	12,498	1,724	8,036	4,558
Adj. R^2	0.612	0.644	0.560	0.552	0.543	0.585	0.554	0.476

Table VII: Additional Results (Continued)

Panel C: Credit boom period	vs. credit crunch period
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Panel D: Pre- and post-2015

		Before	2015			After	2015	
	MCB (1)	Central SOE (2)	Local SOE (3)	POE (4)	MCB (5)	Central SOE (6)	Local SOE (7)	POE (8)
Pre	0.003	-0.016	-0.059**	-0.047	0.078**	-0.059**	-0.024	0.120***
	(0.08)	(-0.47)	(-2.15)	(-0.79)	(2.53)	(-2.09)	(-0.80)	(3.07)
Post	0.003	-0.043	0.097**	0.050	0.036	-0.080	0.102	0.080*
	(0.05)	(-0.60)	(2.34)	(0.65)	(0.51)	(-1.13)	(1.11)	(1.85)
Controls	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Year-Qtr FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Province FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Obs	2,750	820	3,192	2,095	12,781	1,661	8,096	4,671
Adj. R^2	0.570	0.640	0.595	0.596	0.543	0.593	0.539	0.465

Panel E: Bonds with listed/unlisted issuer

	I	MCB	Cent	tral SOE	Loc	cal SOE	-	POE
	Listed	Non-listed	Listed	Non-listed	Listed	Non-listed	Listed	Non-listed
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Pre	0.024	0.069***	-0.037	-0.048	-0.034	-0.034	0.039	0.098**
	(0.20)	(2.59)	(-0.89)	(-1.54)	(-0.77)	(-1.25)	(0.66)	(2.32)
Post	-0.072	0.034	0.018	-0.132*	0.082	0.074	-0.042	0.118*
	(-0.45)	(0.55)	(0.25)	(-1.74)	(1.10)	(1.00)	(-0.77)	(1.95)
Controls	Ì √ Í	\checkmark	Ì√ ́	\checkmark	Ì √ Í	ĺ√ ĺ	ĺ √ ĺ	\checkmark
Year-Qtr FE	\checkmark							
Province FE	\checkmark							
Obs	270	15,255	962	1,519	1,980	9,308	2,258	4,508
Adj. R^2	0.680	0.541	0.668	0.643	0.560	0.530	0.549	0.454

Appendix

Table A1: Variable definitions

This table defines the variables we use in this paper. Dependent variables include the issue spread and trade spread. Other variables include a series of bond-, issuer-, and city-level characteristics.

Variable	Definition
Dependent variables	
Issue spread	The issuance rate minus the YTM of a synthetic China Development Bank bond with matching maturity as of the day of issue
Trade spread	The trading YTM minus the YTM of a synthetic China Development Bank bond with a matching maturity as of the day of trade
Bond-level variables	
Pre	An indicator that equals one if the bond is issued(traded) in the pre-window of an expected prefecture-level political turnover in the city where the issuer is located and zero otherwise; the pre-window is defined as the period exceeding the historical average mayoral tenure length of cities in the same province, and expected turnovers are the ones with a valid pre-window
Post	An indicator that equals one if the bond is issued(traded) in the six months immediately following an expected mayoral turnover (i.e., months $[0,5]$) in the city where the issuer is located and zero otherwise
Maturity	Bond maturity as of the day of issue/trade
Ln(amount)	The natural log value of bond issuance size in RMB billions
DummyAAA/AA+/AA	Bond rating indicators as of the day of issue/trade
Guarantor	An indicator that equals one if a bond has a guarantor
Covenant indicators	Covenant indicators as of the day of issue, including ad- justable, callable, extendable, putable, and sinkable
Turnover	Bond's trading volume divided by bond issuance size
Issuer-level variables	
Ln(issuer size)	The log value of the issuing firm's total assets in RMB billions
Leverage	The issuing firm's total liabilities over total assets
ROA	The issuing firm's net profit in fiscal year t over its average assets in years t and $t-1$
City-/Provincial-level variables	
ΔGDP	Real GDP growth in percentage
Fiscal deficit	Fiscal expenditure minus fiscal revenue scaled by GDP
Transfer payment ratio	Provincial transfer payment amount divided by local gov- ernment debt balance
Mayor_age_dist	Distance from mayor's age to age 55.

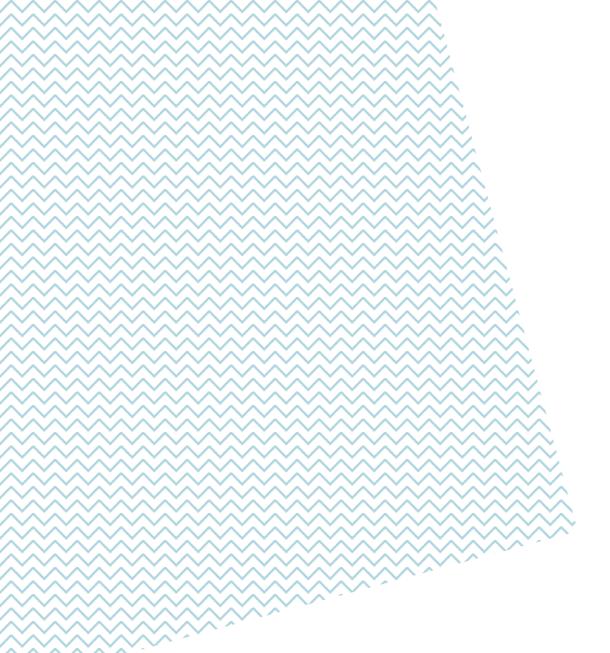
market	
Summary statistics of secondary market	\$
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Summary	,
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Table 1	

This table presents summary statistics for secondary market trading of municipal corporate bonds (MCBs) and non-municipal corporate trading volume to bond issuance size. All issuer and city variables are merged to bond trades with a lag of six months to account for the delay accompanying the release of data. Summary statistics include the number of observations, the mean, the standard deviation, the maturity as of the day of trade, a guarantee covenant indicator, bond value outstanding (RMB billions) and the turnover; issuer-level variables include issuer size (RMB billions), leverage, and ROA; and issuer city characteristics include GDP growth (%), fiscal deficit aggregate to the monthly frequency using dollar transaction volume as weights. Monthly turnover is defined as the ratio of monthly bonds (non-MCBs) in Panel A and ones of different types of non-MCBs in Panel B. Bond-level variables include the trade spread (%), scaled by GDP, and distance from mayor's age to age 55. Data for bonds are calculated at the daily frequency except turnover and then median, and the 10th and 90th percentiles. The sample period is from January 2009 to June 2020.

$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$					
Mean STD P10 Median ad (%) 1.76 1.08 0.67 1.51 3.33 2.18 0.43 3.27 0.22 0.41 0.00 0.00	Man		N = 139,933	33	
ad (%) 1.76 1.08 0.67 1.51 3.33 2.18 0.43 3.27 0.22 0.41 0.00 0.00	Mean	STD	P10	Median	P90
3.33 2.18 0.43 3.27 0.22 0.41 0.00 0.00	2.17	2.09	0.66	1.64	4.18
	2.00	1.78	0.17	1.64	4.46
	0.15	0.36	0.00	0.00	1.00
0.09 U.50 I.00	1.24	1.10	0.37	1.00	2.50
78.82 9.95 29.71]	84.35	142.00	6.54	33.15	229.00
0.60 0.00 0.10	0.24	0.69	0.00	0.09	0.46
0.14 0.35 0.56	0.63	0.14	0.43	0.66	0.80
1.35 1.42 0.25 1.02	2.89	3.81	0.03	2.23	7.08
2.61 6.70 8.50	9.14	3.09	6.40	8.76	13.20
it $0.06 0.07 0.00 0.04$	0.05	0.07	0.00	0.04	0.10
3.27 1.00 3.00	3.39	2.90	0.00	3.00	7.00

non-MCBs
and
MCBs
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statistics
summary
market
Trade
A:
Panel

			Central SOE					Local SOE					POE		
			N = 16,592					N = 71,975					V = 51, 30	66	
	Mean	STD	P10	Median	P90	Mean	STD	P10	Median	P90	Mean	STD	P10	Median	P90
Trade spread $(\%)$	1.32	1.21	0.43	0.99	2.53	1.79	1.36	0.65	1.43	3.48	2.96	2.79	1.00	2.38	5.04
Maturity	1.71	1.65	0.12	1.23	4.17	2.09	1.94	0.16	1.64	4.67	1.96	1.57	0.20	1.75	4.24
Guarantor	0.10	0.30	0.00	0.00	1.00	0.16	0.37	0.00	0.00	1.00	0.15	0.35	0.00	0.00	1.00
Amount (RMB billion)	1.75	1.59	0.40	1.00	4.00	1.25	0.97	0.40	1.00	2.50	1.04	1.02	0.30	0.80	2.00
Issuer size (RMB billion)	162.60	239.80	9.44	64.89	444.00	86.45	109.30	7.61	38.55	248.80	56.12	129.80	4.79	23.22	124.60
Turnover	0.21	0.51	0.00	0.08	0.42	0.29	0.79	0.00	0.10	0.53	0.18	0.56	0.00	0.08	0.39
Leverage	0.68	0.13	0.51	0.69	0.84	0.64	0.15	0.43	0.67	0.80	0.60	0.14	0.42	0.62	0.77
ROA (%)	2.49	3.69	-0.10	2.30	5.76	1.99	3.19	-0.31	1.33	5.58	4.28	4.22	0.90	3.41	8.76
ΔGDP (%)	9.34	3.48	6.20	8.90	13.70	9.23	3.35	6.20	8.88	13.50	8.95	2.51	6.70	8.47	12.24
Fiscal deficit	0.04	0.04	0.01	0.03	0.07	0.05	0.05	0.01	0.04	0.12	0.04	0.09	0.00	0.03	0.09
Mayor_age_dist	2.82	2.32	1.00	2.00	6.00	3.59	2.95	0.00	3.00	8.00	3.30	2.97	0.00	2.00	7.00





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