Informal Relationships and Credit Ratings[1]

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Abstract

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Abstract

Unlike U.S. firms, Chinese firms disclose entertainment and travel expenses (ETC), a common tool for building business relationships. We find a positive relation between abnormal entertainment expenses and credit ratings. Analyses based on local culture support a causal interpretation of the ETC effect on ratings. ETC-driven ratings benefit firms via lower financing costs and increased debt capacity. These effects are distortionary, as firms with abnormal entertainment expenses do not default less. Reforms designed to improve the rating industry's integrity weaken this effect. Overall, our findings suggest informal relationships reduce the informativeness of credit ratings in an environment with weak controls.

1. Introduction

China's bond market is the second largest in the world, yet there is little research on credit rating agencies (CRAs) in this market. Such research is necessary because China provides unique institutional features that have the potential to advance the accounting literature (Lennox and Wu, 2022; Cheng, Hail, and Yu, 2022). For example, Moody's recently upgraded Apple's credit rating to AAA, making Apple the third company in the U.S. to receive this highest rating. In China, by contrast, over 700 issuers have AAA ratings. There are few defaults among AAA-rated corporations in U.S. history. In contrast, at least eight AAA-rated Chinese issuers defaulted on their debt within one year of receiving the highest rating in 2020 and 2021.[1] Further, Hung, Kraft, Wang, and Yu (2022) show that Standard & Poor's has a market share of just four percent in China. Domestic CRAs dominate in China, yet they receive little attention in the academic literature.

Informal relationships and exchanges of favors (*guanxi* in Chinese) are a traditional and prevalent culture in China and East Asia. Such practice provides firms an alternative mechanism to garner resources when there are institutional barriers or when formal mechanisms fail.[2] In the context of credit ratings, issuing firms work closely with analysts and executives from the rating agency before a formal rating is determined. Relationships between firms and CRAs have ambiguous effects on ratings quality. For example, relationships facilitate the generation of soft information, which can help CRAs improve the informativeness of credit ratings (Kraft, 2015a; Bozanic, Kraft, and Tillet, 2023) and make ratings better predictors of accounting fraud (Huang, Kraft, and Wang, 2023). However, relationships potentially exacerbate CRAs' subjectivity, a

[1] For example, Sichuan Languang Development defaulted in July 2021, but it had a AAA rating from Dagong Global Credit Rating as late as March 2021. Yongcheng Coal and Electricity Holding defaulted in November 2020, with a AAA credit rating from China Chengxin Ratings at the time of default. Such AAA defaults also happened to Founder Group in 2019 and Brilliance Auto Group and Tsinghua Unigroup in 2020. Media report: https://finance.sina.com.cn/roll/2020-11-29/doc-iiznctke3800449.shtml

[2] See, e.g., Xin and Pearce (1996) and Chu et al. (2021).

significant determinant of credit ratings (Griffin and Tang, 2012; Fracassi et al., 2016). Relationships could affect CRAs' subjective assessments of credit risk through, for example, quid pro quos (Cornaggia et al., 2016) or through CRAs' catering to firms (e.g., Griffin and Tang, 2013; Kraft, 2015b). Our main finding is that firms enjoy higher ratings when they cultivate informal relationships with CRAs.

Unlike in the U.S., Chinese firms disclose the expenses used to build such relationships. Entertainment spending (formally entertainment and travel expenses, ETC hereafter) is part of administrative expenses in income statements for publicly listed Chinese firms. Firms build relationships with suppliers, customers, stakeholders, government officials, and regulators. ETC covers entertainment, trips, gifts, and potential bribes. In the U.S., the Securities Exchange Act recognizes conflicts of interest associated with issuers' excessive gifts and entertainment to rating analysts and prohibits this practice outright.[3] However, in China, firms have the potential to ingratiate themselves with raters through entertainment spending and influence raters' opinions for more favorable ratings. There are considerable grey areas in entertainment and relationship investment. Recent evidence shows that these expenses can include bribes disguised as legitimate business spending (Giannetti et al., 2021 and Griffin, Liu, and Shu, 2022). Testimony from a manager at one of the largest CRAs in China illustrates the practice:

> "*The client expressed his willingness to pay more kickbacks for higher ratings. In order to pass the review smoothly, I asked the chair of the review committee to help. I also arranged for the client to dine with our chief executive in charge of rating review, so as to get the chief's acquiescence. I thought it was no big problem to raise the client's rating. So I agreed to the client's request, and the client suggested*

[3] See Part 240, Rule 17g-5 of the Securities Exchange Act.

two million yuan as a reward. To make sure nothing went wrong, I also worked on the other members of the review committee individually. Eventually, the rating was issued as the client had wished, and the client also honored the reward."[4]

We begin by using the measure of ETC first proposed by Cai, Fang, and Xu (2011). To capture entertainment spending in the rating process that is not for firms' fundamental needs but for informal influence, we purge the portion of ETC driven by normal operations such as production, marketing, and executive perks, and focus on its abnormal component in rating years. We find a positive and significant relationship between abnormal entertainment spending and credit ratings. This result is in line with evidence that U.S. firms use discretionary behavior to influence CRAs.[5] However, it suggests a more direct channel of firms using expenses to influence individual CRA analysts.

Of course, this finding could be a result of various omitted variables. For example, various firm characteristics that are hard to measure such as managerial ability (Bonsall, Holzman, and Miller, 2017; Cornaggia, Krishnan, and Wang, 2017) may explain higher credit ratings and be correlated with abnormal ETC. We exploit a set of regulations issued by China's top financial regulators in 2019 to address endogeneity concerns. These regulations targeted potential conflicts of interest in the rating process and significantly curbed rating agencies' receptiveness to quid pro quos. Importantly, they are plausibly exogenous to firm characteristics. We find the effect of rating-year abnormal entertainment expense on firms' ratings is significantly positive before the regulatory shock. An interquartile range increase in abnormal entertainment spending results in a

[4] Panel C of Table A1 in the Internet Appendix lists this and other scandals involving bribery or credit rating agencies in China's bond market. See also: "China to prosecute rating agency manager over 'massive' bribes," *Financial Times*, December 14, 2020， https://www.ft.com/content/2905fe80-55c1-4b5e-9297-fe7c38315848.

[5] See, e.g., Jung, Soderstrom, and Yang (2013); Alissa, Bonsall, Koharki, and Penn Jr. (2013); and Liu, Subramanyam, Zhang, and Shi (2018) for evidence that firms use accounting discretion to influence CRAs.

10% of a notch increase in the firm's rating. However, after the shock, the effect significantly weakens. Given that the regulations were largely unexpected, and targeted quid pro quos in the rating industry in particular, the results provide evidence of a plausibly causal effect on ratings. Furthermore, inspired by research on the positive relationship between corruption and a culture of disrespect for rules (Fisman and Miguel, 2007), we also use a firm's local history of rebellion to instrument for its spending intended to circumvent rules in a two-stage specification. We find similar results.[6]

We quantify the benefits a firm can obtain through abnormal entertainment spending. We find that improved ratings significantly reduce firms' cost of debt and increase their debt capacity, while lenders seem inattentive to the excessive entertainment spending behind the improved ratings. An interquartile range increase in abnormal entertainment spending is associated with a 4% increase in the size of a firm's bond offering. It is also associated with a three basis-point decrease in a firm's bond spread, i.e., a 2% decrease from the mean. These financial benefits provide economic incentives for firms to invest in informal influence.

We further show that the use of excess entertainment spending to influence ratings is more pronounced when it is more difficult for firms to access debt financing. For example, the effect of abnormal entertainment spending on ratings is 9% stronger when the bond market is in a cold cycle than when the market is relatively hot. The effect is 29% stronger when firms' local banking markets are underdeveloped than when access to bank financing is relatively easy. This evidence is consistent with rent-seeking. While the literature on rent-seeking mostly focuses on government authorities (e.g., Fisman, 2001; Khwaja and Mian, 2005; Fisman and Wang, 2015; Zeume, 2017;

[6] Although ETC is used to proxy for favor exchanges in prior studies (see papers cited above, as well as Chen, Liu, and Su, 2013, and Du, Guariglia, and Newman, 2015), we are among the first to use quasi-experimental settings to address potential endogeneity issues.

Giannetti et al., 2021; and Cheung, Rao, and Stouraitis, 2021), we provide evidence that rating agencies are vulnerable to rent-seeking as well. When it is more difficult or costly to access debt financing, firms have a stronger incentive to use informal channels to boost ratings and enhance access. Our study differentiates from the literature on rating agency fees and credit rating levels (Cornaggia, Cornaggia, and Israelsen, 2023). Instead, we focus on how rating analysts are personally treated by investigating entertainment and travel expenses. Hence, our findings help understand the costs and benefits of pursuing such informal connections and the importance of relationship capital in an economy with relatively weak institutions.

We also contribute to the growing body of China-related accounting research. American and U.S. firms, as well as CRAs, share similarities, such as the role of accruals (Kraft, 2014), but they also exhibit many important differences. As Lennox and Wu (2022) describe, there are three major themes of research on China: (i) China's unique political and regulatory institutions, (ii) China's relationships with foreign investors, and (iii) China's novel data and unique regulatory shocks. This paper speaks to (i) and (iii). We examine the influence of *guanxi* in the creation of credit ratings. We also make use of the unique data environment in China because firms disclose ETC, and we construct tests based on anti-corruption regulatory reforms that are unique to China.[7] Cheng, Hail, and Yu (2022) describe five emerging themes in China-related research. We contribute to two of these themes: political forces and government intervention in markets (anti-corruption regulatory reforms), and informal institutions such as social connections that serve as a substitute for formal governance mechanisms (ETC builds informal relationships).

[7] Brockman et al. (2019) and Guan, Su, Wu, and Yang (2016) examine the effects of *guanxi* on seasoned equity offerings and audit outcomes in China, respectively. Hope, Yue, and Zhong (2020) use a different Chinese anti-corruption regulation to examine how *guanxi* affects financial reporting quality.

Finally, we contribute to the literature on non-fundamental determinants of credit ratings, including conflicts of interest. While the existing literature mostly focuses on structural issues of the rating industry, we dig into business culture and document an effect attributable to China's business environment. Our findings uncover that significant rating inflation through the exchange of favors can exist regardless of who pays for the ratings or how rating agencies compete.[8] For economies where informal influence through connections is common, improving the quality of credit ratings may require institutional reforms beyond the rating industry.

2. Background and hypothesis development

2.1. Entertainment and travel expenses in China

Entertainment and travel expenses are incurred when employees travel for business purposes or entertain parties of interest. They are often legitimate expenditures used to build and maintain business networks but can also include informal relationship building expenses such as feasting, luxury trips, and expensive gifts. They can be misused to disguise corruption as well. In fact, many firms and rating agencies in the U.S. recognize the potential corruption risk associated with entertainment and travel expenses and have compliance guidelines set up to mitigate this risk.[9] However, U.S. firms' entertainment expenses are not reported publicly and are only available from firms' tax filings.

[8] For evidence on the importance of CRA compensation structure, see, e.g., Becker and Milbourn (2011), Bolton, Freixas, and Shapiro (2012), Jiang, Stanford, and Xie (2012), Cornaggia and Cornaggia (2013), Griffin, Nickerson, and Tang (2013), Opp, Opp, and Harris (2013), Xia (2014), Bruno et al. (2016), Cornaggia, Cornaggia, and Xia (2016), Sangiorgi and Spatt (2019), and Cornaggia, Cornaggia, and Israelsen (2020 and 2023).

[9] For example, GM has clear policies regarding meals, entertainment, etc.: https://investor.gm.com/static-files/d8e937d5-c352-4d13-8488-5c0891e7e4ad. Moody's has strict polices regarding gifts, favors, and entertainment: https://www.moodys.com/uploadpage/Mco%20Documents/SP13436_Policy_for_Solicitation_or_Acceptance_of_Money_Gifts_Favors_or_Entertainment_KSA.pdf

As an accounting category, entertainment expenses serve similar purposes in China. According to Cai, Fang, and Xu (2011), one of the pioneering studies on corruption and informal relationship building of Chinese firms, "[e]ntertainment and travel costs are used to cover entertainment (including eating, drinking, gifts, karaoke, and sports club membership) and travel expenditures. In addition to legitimate business travel and other expenses, Chinese managers commonly use the ETC accounting category to reimburse expenditures used to bribe government officials, entertain clients and suppliers, or accommodate managerial excess." On the surface, Chinese firms have strict policies for reimbursing entertainment expenses, which sometimes seem stricter than their U.S. counterparts'. For example, Chinese firms require itemized receipts to justify each particular expenditure, say, a taxi ride. However, some common business practices implicitly encourage illegitimate expenditures. For example, hotels can bill luxury gifts bought at their affiliated boutiques as room charges. Restaurants and taxi drivers can provide inflated receipts at the client's request, and these receipts can be used to cover illegitimate expenses incurred elsewhere. As described in Giannetti et al. (2021), "[e]ntertainment expenses are likely to include expenses for outright illegal activities, such as bribes, as well as borderline activities."

Entertainment expenses are not a direct measure of bribes. However, when firms use these expenses in excess of normal operation needs, it can be an indication of activities in grey areas of relationship building. As this type of activity bears significant risk, *abnormal* entertainment spending, which we will define below, can be a reasonable measure of firms' inclination and effort to build connections for informal influence.

Another possible way to spend resources to influence credit ratings is for firms to pay higher rating fees. However, the benefits of higher rating fees are likely less salient to rating agency employees than travel and entertainment benefits. That is, higher fees are ultimately passed on to

the owners of rating agencies. Travel and entertainment expenses are enjoyed directly by the employees of rating agencies who award ratings.

Further, if firms engage in a favor exchange, rating fees are more likely to leave a paper trail than entertainment expenses. Specifically, rating fees are clearly recorded on both the rating agency's and the firm's accounting books and can be easily matched between a rating agency and its client firms. If an investigator were to become suspicious about the rating of a firm, he/she could track down the rating fee paid by the firm to the rating agency. Compared with similar firms, an overly favorable rating accompanied by an unusually high rating fee could raise suspicion and could also serve as evidence toward allegations of bribery.

In contrast, entertainment expenses are only recorded on the firm's accounting books, not the rating agency's. Entertainment expense covers a wide range of spending by the firm and often does not indicate the ultimate beneficiary of an expense. Even if an investigator is suspicious of a firm bribing a rating agency, it would be difficult to disentangle any portion of an entertainment expense that was used to bribe a rating agency. Moreover, unlike rating fees, the rating agency does not record being entertained by a firm. Thus, there is little possibility for an investigator to trace a particular expense to the rating agency.

2.2. Credit rating agencies in China's bond market

China's bond market has grown rapidly in the past decade. The value of outstanding bonds reached 19 trillion dollars in 2020, which is more than 95% of China's GDP and accounts for 15% of the global bond market share. Accompanying this growth, a domestic credit rating industry that adopts international rating standards has also developed. With Chinese regulators' mandate that all public bonds must be rated, credit rating agencies (CRAs) enjoy a large customer base yet face

strong competition. Today, there are ten accredited CRAs in China. They receive accreditations from respective regulators with jurisdiction on different types of bonds.[10] Table A1 panel A in the Internet Appendix lists each CRA's accreditations and business model. Like their U.S. counterparts, many CRAs in China operate with an issuer-pay business model, implying they are likewise subject to pressures to balance type 1 and type 2 errors related to ratings timeliness and stability. (See, e.g., Beaver et al., 2006, Cheng and Neamtiu, 2009, and Cornaggia and Cornaggia, 2013.)

Although China's domestic rating scale closely follows global standards, the ratings are highly concentrated at the top categories. Specifically, 14% of non-financial corporate issuers have a AAA rating and 74% are rated in the top three categories. In terms of bond amounts outstanding, 56% have a AAA rating and 96% are rated in the top three categories. This highly skewed distribution can be partly explained by rating-contingent requirements for accessing the bond market. Chinese regulators set mandatory minimum ratings for corporate bonds to be qualified for public issuance. In most cases, only one rating is required. In the interbank market, commercial paper and medium-term note issuers must be rated AA- or above. Exchange-traded corporate bonds that are issued only to qualified investors generally need a rating of AA. Those issued to the general public need a AAA rating, except for issuers in the real estate sector, where a rating of AA or above is sufficient.

These minimum rating requirements are intended to keep low-quality issuers out of the market. They nevertheless encourage rating shopping and favor exchanges.[11] In 2018, Dagong

[10] The China Securities Regulatory Commission (CSRC) regulates the exchange bond market. The People's Bank of China (PBoC, the central bank) regulates the interbank bond market, including commercial papers, medium-term notes, and private placement notes. Besides these two major regulators, the National Development and Reform Commission (NDRC) regulates the issuance of enterprise bonds, which may be traded in the exchange or interbank markets.

[11] Opp, Opp, and Harris (2013) show in a theoretical model that rating-contingent regulations can lead to rating inflation. Cornaggia et al. (2017 and 2018) show how these effects vary across asset classes and investor clienteles.

Global Credit Rating, which is estimated to have a 20% market share in China, was found to have "directly provided consulting services to rated companies," which is prohibited, and "charged high fees" that compromised its independence (*South China Morning Post*, August 18, 2018). In December 2020, the general manager of Golden Credit Rating International was charged with taking bribes to boost numerous clients' credit ratings. Appendix 2 provides details about favor exchanges in the Dagong and Golden investigations. Panel C of Table A1 in the Internet Appendix lists scandals in Chinese bond markets involving rating agencies and/or favor exchanges in recent years. Further, anecdotes of credit analysts' luxury shopping mall trips sponsored by issuers are well circulated in the industry. Based on the preceding discussion, we test the following main hypothesis (stated in the alternative form):

H1: A positive association exists between firms' abnormal use of entertainment and travel expenses and credit ratings.

Any relationship between abnormal entertainment expenses and ratings has an ex ante ambiguous effect on ratings quality. Informal relationships may distort ratings, as credit rating analysts are persuaded to provide favorable assessments of firms. However, informal relationships may facilitate the transmission of private information. Ahn, Bonsall, and Buskirk (2019) show that rating agencies exhibit relatively more anticipation and less reaction to negative (compared to positive) public information events when they have more access to private information. Further, soft information improves the informativeness of credit ratings (Kraft, 2015a, Bozanic, Kraft, and Tillet, 2023) and makes ratings better predictors of accounting fraud (Huang, Kraft, and Wang, 2023). Informal relationships provide opportunities for firms to communicate soft information. We

examine whether any entertainment-driven effect on ratings is distortionary by testing its effects on firms' ability to borrow, the cost of debt, and whether entertainment-driven ratings are differentially predictive of default. We thus state our second hypothesis as follows (in the alternate form):

H2: Higher ratings driven by abnormal ETC allow firms to borrow more money at lower interest rates, but such ratings are not associated with lower default rates.

3. Variable definitions and sample selection

We start with Chinese public firms listed in Shanghai or Shenzhen Stock Exchanges with long-term issuer credit ratings from 2010 to 2020.[12] We exclude financial firms due to their regulated capital structure. We collect entertainment expense as a breakdown item under administrative expense in the income statement. Although disclosure of entertainment expenditure is not mandatory, most public firms in China choose to disclose it. Among all the listed firms in China during our sample period, more than 98% disclose a detailed breakdown of administrative expense, and 87% report entertainment expenditure in these breakdowns. Therefore, although selection bias is possible, it is unlikely to be a major issue in our sample. Further, to the extent that "worst offender" firms choose not to disclose entertainment expenses, this selection effect will work against our main findings. We collect firm financial data from CSMAR. Credit rating data are from IFIND and Wind.

[12] Credit ratings for publicly listed companies in China are scarce prior to 2009. The first corporate bond from a publicly listed company in China was issued in 2007. This feature distinguishes CRAs in China from those in the U.S. Major U.S. CRAs like Moody's, S&P, and Fitch received tremendous criticism for inaccurate credit ratings during the global financial crisis (deHaan, 2017). Chinese credit rating agencies were nascent at that time. Livingston, Poon, and Zhou (2018) and Jiang and Packer (2019) provide more background on the Chinese credit rating industry.

We convert an issuer credit rating into a categorical variable, *Rating*, which ranges from 0 to 7 according to the following schedule: AAA = 7, AA+ = 6, AA = 5, AA- = 4, A+ = 3, A = 2, A- = 1, and BBB+ and below = 0. Some firms have ratings from more than one CRA. In most cases, these multiple ratings are identical.[13] If they are not identical, we use the rating issued by the CRA with which the firm had interacted the most since the beginning of the sample. If there are multiple ratings issued to a firm in a year, we use the latest one. Bonsall, Koharki, and Neamtiu (2015) show that CRAs monitor issuers more closely when they assign ratings. Firms are potentially able to influence CRAs the most through informal relationships at these times. As such, our main sample includes firm-years with rating actions.

To measure firms' abnormal entertainment expense, we first obtain *EntX*, the natural logarithm of a firm's entertainment expense. We then regress *EntX* on *LnSales*, the logarithm of the firm's sales; *LnAssets*, the logarithm of the firm's total assets; *Marketing Expense*, marketing expense divided by sales; *Capital Intensity*, total assets divided by total revenue; and *Compensation*, the average compensation of the top three executives, together with industry and year fixed effects. To capture the relationship between entertainment expense and legitimate operational needs in normal times, we only use observations in non-rating years for this regression.[14] Then, based on the estimated regression equation, we compute the residual, *AbnEntX* (abnormal entertainment expense), using observations in the rating years. Because *AbnEntX* is orthogonal to the predicted entertainment expense under ordinary circumstances, it is not directly related to a firm's fundamentals or ordinary networking needs but captures the firm's excess entertainment spending in rating years.

[13] Split ratings are uncommon in China, in contrast to the U.S., where split ratings are "not exactly rare" (Ederington, 1986) and arise for a variety of reasons (e.g., different treatment of tax avoidance by CRAs (Bonsall, Koharki, and Watson, 2017)).

[14] See Table A2 in the Internet Appendix for the regression results.

We construct the following control variables: *SOE* is a dummy variable that equals 1 if the firm is a state-owned enterprise. *LnAssets* is the natural logarithm of total assets. *Working Capital* is working capital scaled by total assets. *Profitability* is net income scaled by total assets. *Leverage* is total liabilities divided by total assets. *Current Ratio* is current assets divided by current liabilities. *Asset Turnover* is sales scaled by total assets. *Cash Flow* is the operating cash flow scaled by sales. *Excess Return* is the firm's return in excess of the market return in the month prior to the rating announcement. *Beta* is the CAPM beta of the firm's stock, estimated using daily returns in the month prior to the rating announcement. *Sigma* is the root mean squared error from the regression used to estimate *Beta*.

Table 1 reports the summary statistics of the above variables. The average sample firm has a rating of AA. The sample average entertainment expense is 12.1 million yuan (= *exp*(16.31), or $1.9 million) and exhibits a skewed distribution, with a maximum of 541.6 million yuan (= *exp*(20.11), or $83.3 million) and a minimum of 0.5 million yuan (= *exp*(13.19), or $0.08 million). *AbnEntX* ranges from -2.2 to 1.8, with a mean of 0.015 and a standard deviation of 0.82. Approximately half of the sample firms are SOEs. We control for firms' SOE status, as this status is a significant determinant of credit risk for Chinese firms (Jin, Wang, and Zhang, 2023). Summary statistics of other control variables are generally in line with research on Chinese bond issuers.

Bonsall, Koharki, Kraft, Muller, and Sikochi (2023b) show that U.S. firms with high probability of default receive more attention and soft rating adjustments from CRAs. We therefore test whether *AbnEntX* correlates with firms' creditworthiness: If firms seek to influence CRAs through ETC, and if riskier firms have greater incentive to influence CRAs, then credit risk could be an omitted variable that explains both credit ratings and *AbnEntX*. Credit ratings are an obvious

measure of credit risk used widely in the literature (see, e.g., Cheng and Subramanyam, 2008). However, the goal of our analysis here is to examine the relationship between *AbnEntX* and credit risk, apart from credit ratings, which are potentially subject to firm interference and are the focus of this study. We follow Bharath and Shumway (2008) and compute a firm's probability of default (*PD*). *PD* is a market-based measure of default risk and is therefore less subject to firm interference than credit ratings. It is the normal transformation of distance to default (*DD*): $PD = N(-DD)$, where *DD* is the sum of the inverse of the firm's leverage and the geometric average return on the firm's assets, divided by the volatility of the firm's assets.

As reported in Table 2, *AbnEntX* has an insignificantly negative relationship with either the current or the following three years' probability of default. This non-result indicates abnormal entertainment spending is not related to firms' credit quality. Therefore, credit risk is unlikely to be an omitted variable that explains both credit ratings and *AbnEntX*. However, consistent with existing literature, we do verify that *AbnEntX* is related to informal influence and grey areas of relationship investment, as proxied by bribery cases associated with firms. See Table A3 in the Internet Appendix.

4. Effect of entertainment spending on ratings

This section focuses on identifying the effect of entertainment spending on credit ratings. We present our baseline results, followed by difference-in-differences analyses based on a quasi-natural experiment and a 2SLS regression with a novel instrumental variable. We also present corroborating evidence using firms' geographic distance to regulators as a measure of monitoring intensity that is plausibly exogenous to credit ratings.

4.1. Baseline results

Figure 1 shows that average entertainment expense is significantly greater in years with rating actions. Average abnormal entertainment expense is also greater in rating years, albeit with noise. This spike of entertainment expense in rating years suggests excess entertainment spending is related to rating activities. We examine this relationship more formally using the following baseline specification.

$$Rating_{it} = \alpha_s + \gamma_t + \beta \times EntX_{it}(\text{or } AbnEntX_{it}) + \delta \times Controls_{it} + \varepsilon_{it} \quad (1)$$

For each firm *i*, *t* is the year in which the firm obtains a credit rating.[15] $Rating_{it}$ is the dependent variable. We use either $EntX_{it}$ or $AbnEntX_{it}$ as the key explanatory variable. α_s are dummies for industry fixed effects. We use industry fixed effects instead of firm fixed effects because firm fixed effects limit the explanatory power of firms with few ratings. The modal Chinese firm receives only two ratings over the sample period. γ_t are dummies for year fixed effects. To control for firm heterogeneity, we include $Controls_{it}$, a vector of firm characteristics including *SOE*, *LnAssets*, *Working Capital*, *Profitability*, *Leverage*, *Current Ratio*, *Asset Turnover*, *Cash Flow*, *Excess Return*, *Beta*, and *Sigma*, which are defined above. ε_{it} is the error term. Following the guideline of Abadie, Athey, Imbens, and Wooldridge (2023), we use robust standard errors.[16]

As reported in Table 3, both entertainment expense and abnormal entertainment expense have a positive and statistically significant relation with credit ratings. Based on the estimates in column 1 (2), an increase in *EntX* (*AbnEntX*) from its 25th to its 75th percentile can boost ratings by 11% (3%) of a notch. This effect is economically meaningful. For context, an interquartile

[15] A firm can receive a credit rating as a first-time issuer or receive a rating update as a seasoned issuer. Our sample includes both situations. See Bonsall, Koharki, and Neamtiu (2015) for evidence that ratings become stale.

[16] Abadie, Athey, Imbens, and Wooldridge (2023) advise against using clustered standard errors if the assignment of the treatment of interest is not clustered. In unreported tests, we find that clients of none of the rating agencies have abnormal entertainment expense that are significantly higher or lower relative to the overall sample distribution. That is, the treatment of interest does not seem to be clustered. Nevertheless, the results remain statistically significant after clustering standard errors at the rating agency level.

range increase in the firm's ROA raises ratings by 18% of a notch. The results indicate that excess entertainment spending in rating years helps to increase firms' credit ratings.

In the following section, we exploit a quasi-natural experiment to infer the causal effect of entertainment spending on credit ratings.

4.2. Rating regulations as a quasi-natural experiment

China's National Association of Financial Market Institutional Investors, which is supervised by the People's Bank of China (the central bank), issued "Regulations for Conflicts of Interest in Credit Rating of Debt Instruments of Non-financial Firms in the Inter-Bank Bond Market" in August 2019. Three months later, the People's Bank of China, the National Development and Reform Commission, the Ministry of Finance, and the Securities Regulatory Commission followed up with a joint administrative order titled "Regulatory Guidelines for the Credit Rating Industry." These regulatory actions put the credit rating industry under an unprecedented supervisory framework supported by four top authorities responsible for financial regulation. Importantly, the new rules marked the first time that regulators at the very top level made a determined joint effort to rein in conflicts of interest in the credit rating business. Because rating agencies are subject to much greater scrutiny of their objectivity after the implementation of these new rules, if firms used to use gifts and entertainment to sway rating agencies' decisions, then we expect this influence to be less effective after the regulations.

We conduct a difference-in-differences analysis between 2018 and 2020. This approach allows us to examine the relationship between abnormal entertainment spending and credit ratings using variation that is unrelated to unobservable firm characteristic(s) and that could bias the baseline OLS results. Examples might include governance quality (Ashbaugh-Skaife, Collins, and

LaFond, 2006) or whether a firm has general counsel in management roles (Ham and Koharki, 2016). These characteristics are difficult to observe and measure in our sample of Chinese firms.[17] We define a dummy variable, *Rating Regulation*, which equals 1 if the year-month is after August 2019, in which the regulation shock started. We run the following regression to assess the effect of abnormal entertainment spending on credit ratings before and after this regulation shock.

$$Rating_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times AbnEntX_{it} \times Rating\ Regulation_t + \delta \times Controls_{it} + \varepsilon_{it} \quad (2)$$

Before reporting the regression results, we examine the changes in ratings between the treated and control groups around the regulation shock. We define the treated (control) group as firms with *AbnEntX* in the top (bottom) quartile. As panel A of Table 4 shows, when favor exchanges are suppressed after the regulation shock (the treatment), the average ratings of treated firms become similar to that of control firms. A significant difference in ratings is only present prior to the regulation shock. Figure 2 visualizes this comparison. The ratings of the treated group are significantly higher than those of the control group from 2018 to 2019. However, the ratings of the treated and control groups are similar from 2019 to 2020.

Importantly, the ratings of control firms maintain their upward trend throughout the sample period without noticeable shifts following the regulation shock. This "non-change" of control firms alleviates the concern that an unobserved time trend that correlates with the regulation shock and spuriously affects the treated group confounds our analysis. This does not appear to be the case in the data, thus providing supporting evidence that the regulatory efforts by the People's Bank of China, the National Development and Reform Commission, the Ministry of Finance, and the Securities Regulatory Commission were unique in their impact on treated firms.

[17] We are unaware of evidence that these characteristics correlate with abnormal entertainment spending. The approach in this section is conservative in that it assumes such characteristics are present and need to be addressed.

Panel B of Table 4 reports the regression results. In column 1, *AbnEntX* has a positive and significant effect on *Rating*. An interquartile range increase in *AbnEntX* results in an increase in *Rating* before the regulations of 9% of a notch. *AbnEntX* × *Rating Regulation*, however, is negative and significant, and the coefficient offsets that on *AbnEntX*. That is, after regulations are tightened on potential conflicts of interest in rating practices, the effect of abnormal entertainment spending on ratings vanishes. The evidence is consistent with rent-seeking through quid pro quos. To further control for other possible changes in the rating process brought about by the regulations, in untabulated tests, we interact *Rating Regulation* with other control variables as well and include these interaction terms in the regression. The key results are essentially the same; the coefficients on *AbnEntX* and *AbnEntX* × *Rating Regulation* do not change qualitatively and remain significant.

We also conduct an alternative difference-in-differences regression where we focus on informal influences measured prior to the rating regulations. Specifically, we use *Low Pre-regulation AbnEntX* in place of *AbnEntX* in equation (2). *Low Pre-regulation AbnEntX* is a dummy variable that equals 1 if a firm's *AbnEntX* in the year 2018 is in the bottom quartile. Thus, it captures informal influences prior to the rating regulations. As reported in column 2 of panel B, *Low Pre-regulation AbnEntX* is negative and significant. The result suggests that prior to the regulations, firms with high abnormal entertainment spending are rated about 16% of a notch higher than comparable firms with low abnormal entertainment spending. However, *Low Pre-regulation AbnEntX* × *Rating Regulation* is positive and statistically significant. The coefficient on the interaction term more than offsets that on *Low Pre-regulation AbnEntX*. The results indicate that higher ratings associated with abnormal entertainment spending before the rating regulations are deflated after the regulatory shock. Again, because the rating regulations specifically targeted

conflicts of interest, the evidence is consistent with ratings being influenced by potential quid pro quos before such practices are curbed.

4.3. Historical rebellion wars as instrumental variable

While we have shown a plausibly causal relationship between abnormal entertainment expense and credit ratings using difference-in-differences analysis based on an exogenous policy shock, we further corroborate identification of this effect with an instrumental variable regression.

Our instrument is motivated by the firm's local history and culture, which influence peoples' tendency to challenge rules and authorities. This tendency can induce the use of alternative means to achieve goals, such as quid pro quos. The literature has shown that a local culture of disrespect for rules is closely related to corrupt behavior (Fisman and Miguel, 2007). We measure disrespect for rules using *Rebellion Wars*, the number of rebellion wars against the ruling Qing Empire (1636–1912) that took place in the firm's prefecture. The Qing Empire was the last dynasty in the imperial history of China. The rebellion wars were clear demonstrations of contempt for the ruling authorities, which could be part of the local culture in the first place. As the stories of those ancestors revolting against the ruling empire passed from one generation to the next, this disobedience was likely to be glorified and further baked into the local culture. In the modern era, such disobedience of authorities and rules can lead to creative ways to circumvent rules for local benefits, such as using informal channels for rent seeking. Controlling for a firm's fundamentals, the number of rebellion wars in history (or a local culture of outwitting authorities) should not affect the firm's credit quality. This assumption is necessary for the instrument to be valid.

We support this argument with data. Table A4 in the Internet Appendix shows that *Rebellion Wars* is not significantly related to key firm characteristics such as size, leverage, and profitability. Neither is it significantly related to the prefecture's current GDP per capita. Thus, *Rebellion Wars* appears uncorrelated with the firm or its region's fundamental conditions. Figure 3 presents heat maps of the rebellion wars at the prefecture and province levels. There are 339 prefectures in China. In terms of size, prefectures are similar to the congressional districts in the U.S. There are 31 provinces in China, comparable to the states in the U.S. The figure shows considerable regional variation in disrespect for rules. Moreover, while the east coast of China is economically more developed than the mid and west regions, the geographic distribution of historical wars does not show apparent correlation with this modern-day variation in economic development. Using this instrument, we run the following 2SLS regression:

$$AbnEntX_{it} = \alpha_{s1} + \gamma_{t1} + \beta_1 \times Rebellion\ Wars_t + \delta_1 \times Controls_{it} + \varepsilon_{it1} \quad (3.1)$$

$$Rating_{it} = \alpha_{s2} + \gamma_{t2} + \beta_2 \times \widehat{AbnEntX}_{it} + \delta_2 \times Controls_{it} + \varepsilon_{it2} \quad (3.2)$$

Table 5 reports the results. Column 1, the first-stage regression, indicates that *Rebellion Wars* is positively and significantly related to a firm's *AbnEntX*. The first-stage F-statistic is a solid 9.5, indicating that the instrument is not weak. In terms of explanatory power, *Rebellion Wars* is a key determinant of *AbnEntX* compared with other control variables. Its partial R-square is less than those of *SOE* and *Size*, but almost the same as those of *Profitability*, *Cash Flow* and *Current Ratio*, and larger than those of the rest. The second-stage regression in column 2 shows that instrumented *AbnEntX* has a positive and significant effect on *Rating*. An interquartile range increase in the instrumented *AbnEntX* results in an 8% of a notch increase in *Rating*. The evidence is consistent with the notion that firms that spend heavily for informal influence are able to sway the credit rating decision. Further, the magnitude is roughly in line with our baseline approach.

The 2SLS estimate could exceed the OLS estimate for several reasons. One is that firms with unobserved low credit quality are more likely to spend on relationship building to garner resources than high quality firms, which often have good access to finance, ex ante. That is, without instrumenting, abnormal entertainment spending tends to associate with low ratings due to unobserved low credit quality. Instrumenting alleviates this downward bias and results in a higher estimate. Another possibility is that the Local Average Treatment Effect (LATE) is greater than the Average Treatment Effect (ATE) of the population. This happens if firms in prefectures with a rebellion history receive more benefits from informal relationships in the rating process than other firms. This effect is possible because people in such cultures could be more accustomed to acquiring rights and benefits through unconventional means. Because our IV does not appear weak based on the first stage results, it is reasonable that OLS underestimates the true effect. However, the second possibility cautions extrapolating the 2SLS estimate too broadly, although no econometric conditions prohibit LATE from being greater than ATE.

4.4. Geographic variation in regulatory monitoring

Next, we examine variation in regulators' monitoring intensity to further examine the relation between abnormal entertainment expenses and ratings. The China Securities Regulatory Commission (CSRC) is the top regulator of publicly traded firms. It has 36 field bureaus located in each of the 27 provinces, four provincial administrative regions, and five large metropolitan areas. These local branches are responsible for supervising public firms located within their respective province or city. Because of the large geographic expanse of China, there is significant variation in the distance between a firm and its local supervisor, and this distance is plausibly exogenous to firm characteristics that are difficult to observe and may affect credit ratings

Geographic distance is widely used in the literature as a proxy for information asymmetry and monitoring intensity (see, e.g., Coval and Moskowitz, 2001; Kedia and Rajgopal, 2011; Chhaochharia, Kumar, and Niessen-Ruenzi, 2012; and Cornaggia, Cornaggia, and Israelsen, 2020). Bonsall, Koharki, and Neamtiu (2021) show that CRAs produce more accurate ratings when firms have credit default swaps (CDS). This is because the information content of CDS disciplines CRAs. We hypothesize that monitoring (or lack thereof) by regulators plays a similar disciplinary role.

Figure 4, Panel A shows the geographic locations of the field bureaus of CSRC. Panel B reports the histogram of *Distance to Regulator*, the distance in kilometers between a firm and the field bureau of CSRC responsible for the firm's region. Most firms are located within 25 kilometers to a CSRC field bureau, yet there remains considerable variation in distance. 30% (10%) of firms are more than 100 (200) kilometers away from their jurisdictional CSRC field bureaus. In Table A5 in the Internet Appendix, we show that distance is associated with monitoring intensity. We regress *Revealed Cases*, the number of bribery-related investigations associated with a firm in a year, on *Distance to Regulator*. We identify bribery-related investigations using news data on bribery cases associated with each of our sample firms provided by DataGo, a news data processor based in Hong Kong. We find that firms located far from regulators are less likely to be investigated. Therefore, *Distance to Regulator* can serve as a proxy for monitoring intensity. We use the following regression to examine how the effect of abnormal entertainment expense on credit ratings varies between firms with different distances from local supervisors:

$$Rating_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times AbnEntX_{it} \times Distance\ to\ Regulator_i + \delta \times Controls_{it} + \varepsilon_{it} \quad (4)$$

For robustness, we use *Long Distance*, a dummy variable that equals 1 if *Distance to Regulator* is above the sample median.

Table 6 reports the results. The coefficients on the interaction *AbnEntX* × *Distance to Regulator* and *AbnEntX* × *Long Distance* are positive and significant. The results indicate that the effect of abnormal entertainment expense on ratings is more pronounced among firms located far from regulators. The evidence is consistent with grey-area entertainment activities between firms and rating agencies, and this misconduct is more likely to occur if regulators cannot effectively monitor the firm due to long distance.

5. Benefits of building connections for favorable ratings

The results so far indicate firms use excess entertainment spending to receive favorable ratings. In this section, we examine the firm value implications of this practice. We focus on debt financing cost and debt capacity. We also examine credit market conditions that induce firms to seek favorable ratings through informal channels.

5.1. Cost of debt

Credit ratings reduce firms' cost of debt by reducing information asymmetry between firms and investors (Wittenberg-Moerman, 2008). To the extent that entertainment spending affects credit ratings, it could also affect investors' perceptions of credit risk. We therefore test whether the interaction between abnormal ETC and credit ratings explains firms' cost of debt. We use *Bond Yield* and *Yield Spread* to measure the cost of bond financing. *Bond Yield* is the yield to maturity of an exchange-traded bond measured in %. *Yield Spread* is the difference in yield to maturity (in %) between a bond and non-tax-exempt Chinese government bonds with the same characteristics.[18] When an issuer is assigned a new rating, we use the first monthly closing quote

[18] We use the Nelson–Siegal (NS) model to fit the term structure of bonds issued by the China Development Bank (CDB). We do not use Treasury bonds because they are tax-exempt. Specifically, we assume that the τ-year spot rate

of the bond after the rating date to measure the yield and the spread. We specify the following regression:

$$Bond\ Yield\ or\ Yield\ Spread_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times Rating_{it} + \beta_3 \times AbnEntX_{it} \times Rating_{it} + \delta \times Controls_{it} + \varepsilon_{it} \quad (5)$$

In addition to controlling for firm characteristics as before, we also include bond characteristics, *Amount* (the logarithm of offering amount), *Maturity* (months to maturity), *Callable* (an indicator for a callable bond), and *Puttable* (an indicator for a puttable bond) in the vector $Controls_{it}$.

Table 7 columns 1 and 2 report the results. We find that a higher rating significantly reduces the bond yield and yield spread for the firm. A one-notch increase in *Rating* reduces the bond yield and yield spread by 37 and 34 basis points, respectively. *AbnEntX* has a positive but insignificant effect on *Bond Spread*. The impact of the interaction *AbnEntX* × *Rating* is negative and insignificant. The results indicate that creditors mainly concentrate on *Rating* as a determinant of interest cost. The fact that *AbnEntX* enters the equation with considerable noise suggests that not all creditors pay attention to it, or think of it as an important determinant of interest cost. In short, while CRAs may be influenced by *AbnEntX*, the market is inattentive.

This focus on rating and inattention to abnormal entertainment spending is plausible. Credit ratings are regarded as a summary and authoritative gauge of creditworthiness derived from sophisticated analysis of the firm by the rating agency. Creditors can free-ride on ratings. Entertainment expense, however, is an item buried with many other detailed items under

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at time t, $r(t,\tau)$, follows $r(t,\tau) = \beta_{0t} + \beta_{1t}\frac{1-e^{-\lambda_t\tau}}{\lambda_t\tau} + \beta_{2t}\left(\frac{1-e^{-\lambda_t\tau}}{\lambda_t\tau} - e^{-\lambda_t\tau}\right)$. Following Diebold and Li (2006), we choose a constant $\lambda_t = \bar{\lambda}$. And we set $\bar{\lambda}$ equal to 0.51235 based on estimation in the Chinese market (Yu and Wang (2010)). We collect the spot rates of CDB bonds with $\tau = 0.5,0.75,1,2,\ldots,10,15,20$ from Wind at time t. Then we estimate $\hat{\beta}_0, \hat{\beta}_1, \hat{\beta}_2$, and calculate the spot rate for any term τ. We obtain bond transaction data from CSMAR. We drop variable coupon bonds and bonds with a time to maturity of less than one year.

administrative expense, which itself is an item under operating costs in the income statements of Chinese firms. To distill abnormal entertainment expense, as we did, requires further data processing and analysis. Therefore, unaware of the hidden link between abnormal entertainment expense and ratings, creditors may not pay as much attention to abnormal entertainment expense when deciding how much interest to charge the firm. Creditors' general trust of credit ratings and inattention to unusual entertainment expense makes it possible for a firm to use quid pro quos to obtain favorable ratings and reduce its debt financing cost.

Consider a firm with the average *Rating* and average *AbnEntX*. Given that an interquartile range increase of *AbnEntX* boosts *Rating* by 9% of a notch (as shown in Table 4), the total derivative of *Interest Cost* on *AbnEntX* indicates that an interquartile range increase in *AbnEntX* ultimately results in a reduction of *Bond Spread* of 3.1 basis points. This magnitude is equivalent to a 1.8% decrease from the mean or a 2.1% of a standard deviation decrease. This saving in interest cost is a potential benefit that firms are willing to seek by investing in informal influence.

5.2. Debt capacity

We examine the effect of *Rating* and *AbnEntX* on the firm's debt capacity using the following regression:

$$Issuance\ Amount\ or\ Large\ Issue_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times Rating_{it} + \beta_3 \times AbnEntX_{it} \times Rating_{it} + \delta \times Controls_{it} + \varepsilon_{it} \quad (6)$$

Issuance Amount is the logarithm of the issuance amount of a bond offering by a firm. *Large Issue* is a dummy variable that equals 1 if the issuance amount is above the annual median. The two variables are matched with the firm's latest *Rating* and *AbnEntX*.

In column 3 of Table 7, we find that *Rating* has a significantly positive effect on *Bond Issuance Amount*. A one-notch increase in *Rating* results in a 45% increase in the yuan amount of issuance size. Meanwhile, *AbnEntX* has an insignificantly positive effect and *AbnEntX* × *Rating* has an insignificantly negative effect. The results suggest that firms with higher ratings can issue larger amounts of bonds, and investors do not consider firms' unusual entertainment expenses as a significant factor when participating in the bond issuance. Given that an interquartile range increase in *AbnEntX* boosts *Rating* by 9% of a notch (as shown in Table 4), this increase in *AbnEntX* ultimately leads to a 3.5% increase in the yuan amount of issuance size, or a 32.1 million yuan ($4.9 million) increase for an average issuer. Holding coupon rate and par value constant, this increase in issuance amount is similar in magnitude to the present value of financing cost savings. As an interquartile range increase in *AbnEntX* translates to a 10.5 million yuan increase in entertainment spending, the net present value of financing cost savings through abnormal entertainment spending amounts to 21.6 million yuan ($3.3 million).[19] The findings indicate significant financial benefits from abnormal entertainment spending. In column 4, where we use *Large Issue* to measure debt capacity, the results are similar. *Rating* again has a positive and significant impact on debt capacity, while *AbnEntX* and *AbnEntX* × *Rating* have insignificantly negative and positive effects, respectively.

As discussed in section 2, the incentive to use informal channels to obtain higher ratings can be aggravated by the regulatory requirement that only firms rated AA or above are qualified to issue exchange-traded bonds. Firms with such ratings can raise larger amounts of capital. The

[19] An interquartile range increase in *AbnEntX* equals 0.583 - (-0.499) = 1.082. Because *AbnEntX* is the residual from the regression of *EntX*, the logarithm of entertainment expense, this increase translates to an increase of entertainment expense by exp(1.082) - 1 = 195%. Given that the 25th percentile of entertainment expense is exp(15.5) = 5.4 million yuan, the increase in entertainment expense is 195% × 5.4 = 10.5 million yuan. Therefore, the NPV of financial cost savings through abnormal entertainment spending equals 32.1 – 10.5 = 21.6 million yuan.

average bond outstanding of a firm with an AA rating is 428 million yuan ($65 million) greater than that of a firm with an AA- rating. This large increase in debt capacity can incentivize a firm to boost its rating above the regulatory threshold.

5.3. Credit market conditions

Given that higher ratings help improve firms' debt capacity, we expect the incentive to obtain higher ratings through abnormal entertainment spending to be stronger when firms have greater difficulty obtaining debt financing. Firms may especially have incentive to secure higher ratings at such times, as U.S. CRAs attempt to limit reputational risk as issuers approach default (Bonsall, Koharki, Kraft, Muller, and Sikochi, 2023a).

Bank loans are the major source of external financing in China, accounting for around 59% of total external financing.[20] We exploit regional differences in banking development as a measure of firms' access to debt finance. As demonstrated by Gilje, Loutskina, and Strahan (2016), bank branches play an important role in integrating local credit markets by mitigating contracting frictions, and branch networks increase the efficiency of capital allocation. Thus, we use *Bank Branches*, the number of bank branches per 10,000 people in the firm's province, which we collect from the China Banking Regulatory Commission's website, to measure the development of the local banking sector. We run the following regression with *Bank Branches* interacted with *AbnEntX*:

$$Rating_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times Bank\ Branches_{it} + \beta_3 \times AbnEntX_{it} \times Bank\ Branches_{it} + \delta \times Controls_{it} + \varepsilon_{it} \quad (7)$$

[20] Source: Reserve Bank of Australia September 2020 Bulletin "Private Sector Financial Conditions in China".

Table 8, column 1 reports the results. *AbnEntX* has a positive and significant effect on *Rating*. The coefficient on *AbnEntX* × *Bank Branches* is significantly negative, indicating that for firms in regions with better access to bank financing, the incentive to seek higher ratings through abnormal entertainment spending is weaker. When *Bank Branches* drops from its 75th percentile to its 25th percentile, the effect of abnormal entertainment expenses on ratings increases by 29%. This evidence is consistent with the view that the practice of using informal channels to obtain higher ratings is motivated by the opportunity to improve firms' access to debt financing. Considering that the number of bank branches can be correlated with local geographic and economic conditions, we further control for province fixed effects in column 2. The results are virtually unchanged.

Next, we consider cold cycles in bond markets, where higher ratings are particularly helpful. In a cold market, barring the highest-quality issuers, firms usually struggle to sell bonds. Obtaining a higher rating can greatly facilitate bond financing. Meanwhile, a cold market tends to coincide with poor aggregate economic conditions. In these challenging times, external financing can be a crucial relief to temporary cash flow shocks. Therefore, firms' desire for higher ratings should be particularly strong when the bond market is in a cold cycle.

We use *Bond Market Issuance Vol*, the total amount of bond issuance by non-governmental and non-financial entities in the prior month, to measure bond market conditions. A low *Bond Market Issuance Vol* is associated with poor market conditions for bond financing. We specify the following regression with *Bond Market Issuance Vol* interacted with *AbnEntX*:

$$Rating_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times Bond\ Market\ Issuance\ Vol_t + \beta_3 \times AbnEntX_{it} \times Bond\ Market\ Issuance\ Vol_t + \delta \times Controls_{it} + \varepsilon_{it} \quad (8)$$

Because *Bond Market Issuance Vol* is at a monthly frequency, it is not entirely absorbed by the year fixed effects. As reported in column 3 of Table 8, while *AbnEntX* has a significantly

positive coefficient, the coefficient on the interaction, *AbnEntX* × *Bond Market Issuance Vol*, is negative and statistically significant. When *Bond Market Issuance Vol* drops from its 75th percentile to its 25th percentile, the effect of abnormal entertainment expenses on ratings increases by 9%. The evidence indicates that firms have a stronger incentive to obtain higher ratings through informal channels when market conditions make fundraising difficult.

5.4. Efficiency of asset allocation

Firms enjoy financing cost savings and increased debt capacity when they have higher credit ratings. These benefits add value to the firm and can incentivize building special connections for favorable ratings. However, when firms seek rents by investing in relationships, do they distort the efficiency of asset allocation? To answer this question, we examine how abnormal entertainment spending interacts with credit ratings to affect a firm's return on assets (ROA) and return on equity (ROE). Our regressions are as follows:

$$ROA\ or\ ROE_{it} = \alpha_s + \gamma_t + \beta_1 \times AbnEntX_{it} + \beta_2 \times Rating_{it} + \beta_3 \times AbnEntX_{it} \times Rating_{it} + \delta \times Controls_{it} + \varepsilon_{it} \quad (9)$$

Table 9 reports the results. *Rating* has a significantly positive impact on both ROA and ROE. *AbnEntX* has an insignificantly negative (positive) effect, and *AbnEntX* × *Rating* has an insignificant positive (negative) effect on ROA (ROE). The results indicate that given the same level of ratings, a firm achieving this rating with more abnormal entertainment spending does not show inferior efficiency relative to an otherwise similar firm with less abnormal entertainment spending. Thus, ratings inflated by relationship investment do not necessarily result in a misallocation of capital to firms with lower efficiency. It is plausible that firms that use informal influences to achieve higher ratings are managed shrewdly and therefore do not show an efficiency disadvantage.

Alternatively, the informal channel can be understood as a (black) market mechanism that circumvents certain regulatory frictions that hinder efficient resource allocation, for example, an arbitrary rating hurdle for issuing exchange-traded bonds. This effect is also consistent with the classical view that corruption can serve as the second-best solution to efficiency when there are policy distortions in the first place.

Although we do not find a significant link between firm profitability and ratings inflated by abnormal entertainment spending, rent-seeking in credit ratings can still cause damage to the public interest. Excess investment in relationship building is a deadweight loss that could be used for more productive purposes. Also, a loss of trust in credit ratings can lead to individuals taking information production into their own hands, consuming resources that could otherwise be saved for more productive use.

6. Conclusion

Unlike U.S. corporations, publicly listed Chinese firms disclose entertainment and travel expenses. We find that firms with abnormal entertainment expenditures in rating years receive higher credit ratings. Using regulatory shocks targeting grey areas of relationship building and rating misconduct, we show that the effect likely reflects a favor exchange in which abnormal entertainment spending is used to sway rating decisions. A novel instrumental variable based on local culture of disrespect for rules corroborates a causal interpretation. Our findings relate rating inflation to business culture and informal practices in China. This mechanism has not been studied by prior literature and it goes beyond the debate of the issuer-pay versus investor-pay business models by expanding our understanding of potential causes for distorted credit ratings. Overall,

we provide novel insights into how information is produced in the world's second largest bond market.

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Appendix 1. Variable Definitions

Variable	Definition
Rating	The issuer credit rating, with AAA, AA+, AA, AA-, A+, A, A-, and other ratings coded as 7, 6, 5, 4, 3, 2, 1, and 0, respectively. Source: Wind
EntX	Logarithm of travel and entertainment expense. Source: CSMAR
AbnEntX	The residual, ε, from the following regression: $$EntX = \alpha_i + \gamma_t + \beta_1 Sales + \beta_2 Assets + \beta_3 \frac{Marketing\ Expense}{Sales} + \beta_4 \frac{Assets}{Total\ Income} + \beta_5 \frac{Top\ 3\ Exec.Compensation}{3} + \varepsilon$$ where α_i and γ_t are industry and year fixed effects, respectively. We use the sample of non-rating years to estimate the equation and compute the residual for the sample of rating years. Source: CSMAR
SOE	A dummy variable that equals 1 if the firm is state-owned and 0 otherwise. Source: Wind
LnAssets	Logarithm of total assets. Source: CSMAR
Working Capital	Working capital scaled by total assets. Source: CSMAR
Profitability	Net income scaled by total assets. Source: CSMAR
Leverage	Total liability scaled by total assets. Source: CSMAR
Current Ratio	The ratio of current assets to current liabilities. Source: CSMAR
Asset Turnover	The ratio of sales to total assets. Source: CSMAR
Cash Flow	The ratio of operating cash flow to sales. Source: CSMAR
Excess Return (%)	The firm's return in excess of the value-weighted index in the month prior to the rating announcement, expressed in percentage points. Source: CSMAR
Beta	The market model beta estimated from a regression of a firm's daily stock returns on the value-weighted index return in the month prior to the rating announcement. Source: CSMAR
Sigma	The root mean squared error from the regression used to estimate β. Source: CSMAR
Revealed Cases	The number of criminal corruption cases associated with the firm that are reported by major news media in the year. Source: DataGo
Investigated	A dummy that equals 1 if *Revealed Cases* > 0.
Probability of Default	Following Bharath and Shumway (2008), the probability of default (*PD*) is the normal transformation of distance to default (*DD*): $PD = N(-DD)$. DD is the sum of the inverse of the firm's leverage and the geometric average return on the firm's assets, divided by the volatility of the firm's assets (see equation (12) in Bharath and Shumway (2008)). Source: CSMAR
Low Pre-regulation AbnEntX	A dummy that equals 1 if a firm's AbnEntX in 2018 (before the rating regulation) is in the bottom quartile. Source: CSMAR
Rating Regulation	A dummy that equals 1 if the year-month is after August 2019, when Chinese authorities implemented new regulations disciplining credit

	rating practices. Source: Regulations for Conflicts of Interest in Credit Rating of Debt Instruments of Non-financial Firms in the Inter-Bank Bond Market and Regulatory Guidelines for the Credit Rating Industry
Rebellion Wars	Number of rebellion wars against the ruling Qing Empire (1636–1912) in the prefecture where the firm is located. Source: Chronology of Warfare in Dynastic China, 2003, Press of People's Liberation Army
Distance to Regulator	The distance between the firm and the field bureau of China Securities Regulatory Commission responsible for the firm's region. Source: CSMAR, CSRC
Long Distance	A dummy that equals 1 if *Distance to Regulator* is above the sample median. Source: CSMAR, CSRC
Bond Yield	The bond's yield to maturity (in %). Source: Wind
Yield Spread	The difference in yield to maturity (in %) between the bond and non-tax-exempt Chinese government bonds with the same characteristics. Source: Wind
Issuance Amount	The logarithm of the issuance amount of a bond offering. Source: Wind
Large Issue	A dummy that equals 1 if Issuance Amount is above the annual median Source: Wind
Bank Branches	Number of bank branches per 10,000 people in the province where the firm is located. Source: CSMAR
Bond Market Issuance Vol.	Total amount of bond issuance by non-governmental and non-financial entities in the prior month, where bond issuance includes enterprise bonds, corporate bonds, mid-term notes, and commercial papers. Source: Wind
ROA	Net income scaled by total assets. Source: CSMAR

Appendix 2. Favor Exchange Cases in Credit Ratings

Case 1:

In December 2020, Jin Yongshou, former general manager of Golden Credit Rating International Co., Ltd., and Cui Runhai, former general manager of the Jiangsu province branch of Golden Credit Rating, were accused of assigning inflated credit ratings to some companies in exchange for huge kickbacks, according to the Central Commission for Discipline Inspection and the National Supervisory Commission. No mention was made of the amount involved.

Cui Runhai recounted his first corruption experience with ratings:

> "The client expressed his willingness to pay more kickbacks for higher ratings. In order to pass the review smoothly, I asked the chair of the review committee to help. I also arranged for the client to dine with our chief executive in charge of rating review, so as to get the chief's acquiescence. I thought it was no big problem to raise the client's rating. So I agreed to the client's request, and the client suggested two million yuan as a reward. To make sure nothing went wrong, I also worked on the other members of the review committee individually. Eventually, the rating was issued as the client had wished, and the client also honored the reward."

Jin Yongshou confessed:

> "In order not to get caught, I influenced the projects through indirect means. Although I didn't engage in or direct the review process, I hinted at my inclination many times via communications with the director and some members of the review committee or by arranging for the client firm to visit our office. This way I could influence the review outcome."

Source: Sohu.com
https://www.sohu.com/a/438089502_114986

Case 2:

Founded in 1994, Beijing-based Dagong Global Credit Rating is authorized to issue credit ratings for all debt instruments – except sovereign bonds – and entities active in China's capital markets.

Dagong and its affiliates offered consulting services to 13 fundraising firms, charging total fees of over CNY 78 million (USD 12 million), and to 18 corporate bond issuers, charging total fees of over CNY 120 million (USD 18 million).

Between 2017 and 2018, Dagong signed CNY 9.7 million (USD 1.5 million) service contracts with Tunghsu, Neoglory Holdings Group, and Jiangsu Nantong Sanjian Holdings (Group), respectively, to help them build an enterprise credit management system. The CNY 9.7 million (USD 1.5 million) consulting fees were much higher not only than the rating service fees Dagong generally charges, but also than the common charges for such services by its peers in the sector. It normally costs about CNY 100,000 (USD 15,385) to have agencies issue a rating for a single entity and CNY 150,000 (USD 23,077) for a single debt.

The three agreed to disburse a set amount each year for the relevant enterprise credit management reports. Dagong revised Neoglory's entity rating from "AA stable" to "AA+ stable" two working days after Neoglory paid the fees, while Nantong Sanjian's entity and bond ratings were upgraded from AA to AA+ a few months after it signed a consulting service agreement with Dagong.

Source: Yicai Global
https://www.yicaiglobal.com/news/dagong-global-bumped-up-bond-issuers-ratings-for-a-bonus-csrc-charges

Figure 1. Entertainment Expense in Rating Years vs. Non-rating Years
The two bars in white to the left represent the average raw entertainment expense (in millions of $) of firm-years with no rating actions and with rating actions, respectively. The two bars in gray to the right represent the average *AbnEntX*, orthogonalized abnormal entertainment expense of firm-years with no rating actions and with rating actions, respectively. The whiskers represent 95% confidence intervals. Variables are defined in Appendix 1. The sample consists of non-financial public firms with a long-term issuer credit ratings between 2010 and 2020.

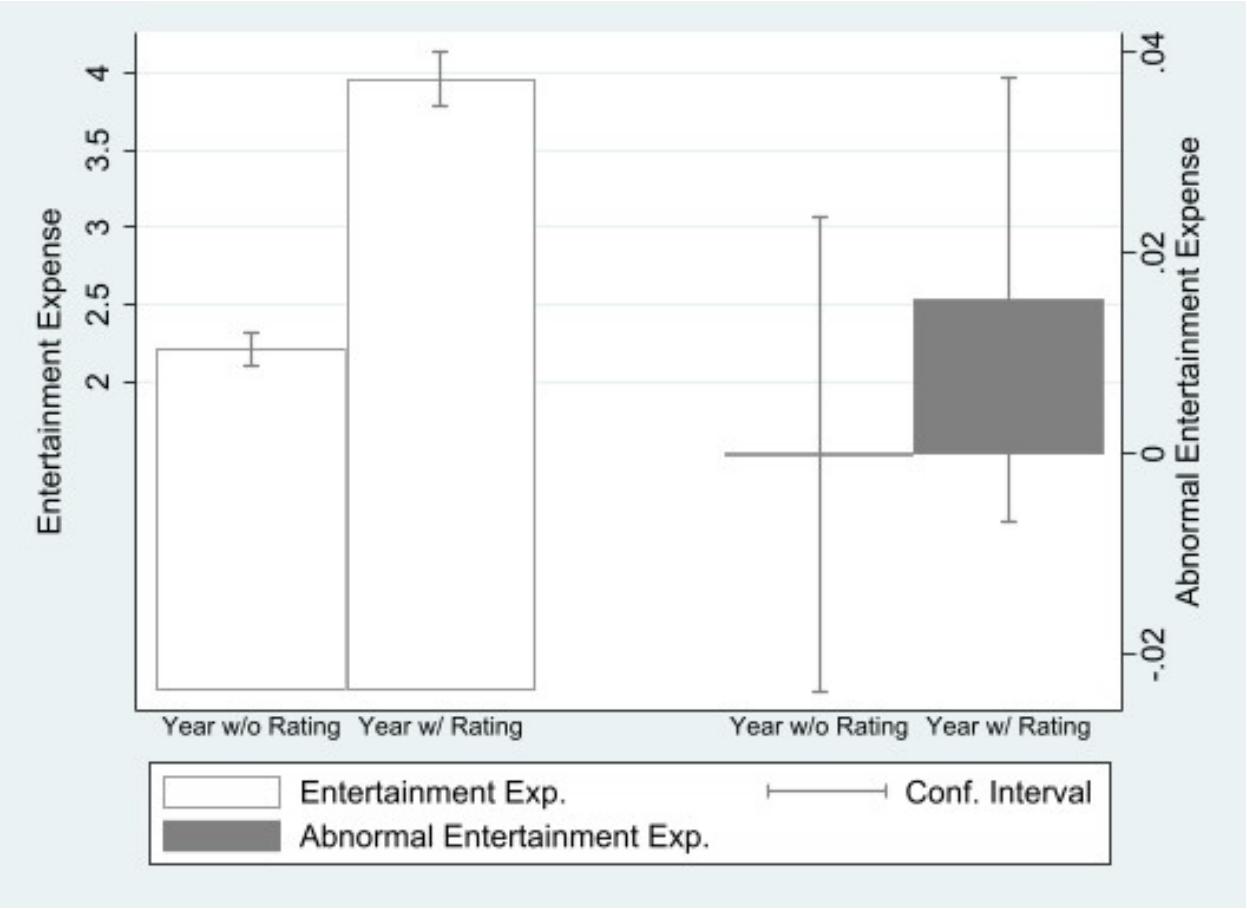
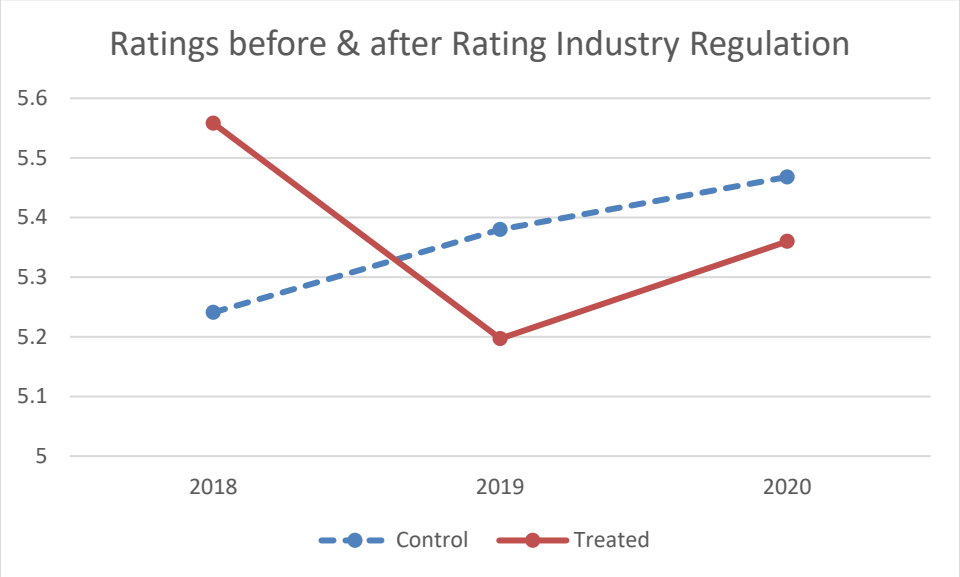


Figure 2. Ratings before and after Rating Industry Regulation Changes
This figure reports the average ratings of the control and treated groups before and after the regulation of the rating industry in 2019. We define the treated (control) group as firms whose *AbnEntX* is in the top (bottom) quartile. In panel A, the dashed and solid lines are the average *Rating* of control firms and treated firms, respectively. In panel B, the solid line is the difference in mean ratings between the control and treated groups. The dashed lines are the 90% confidence intervals.

Panel A



Panel B

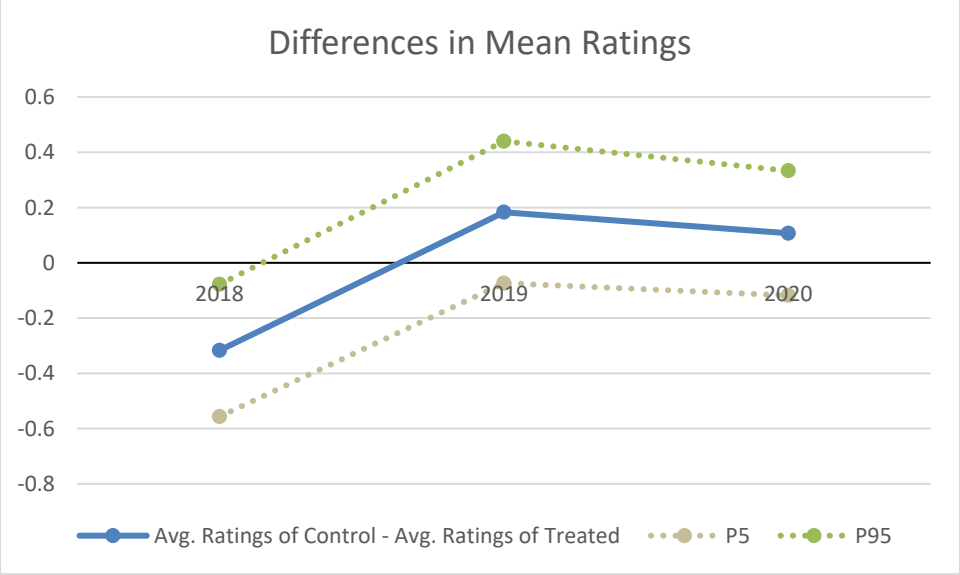
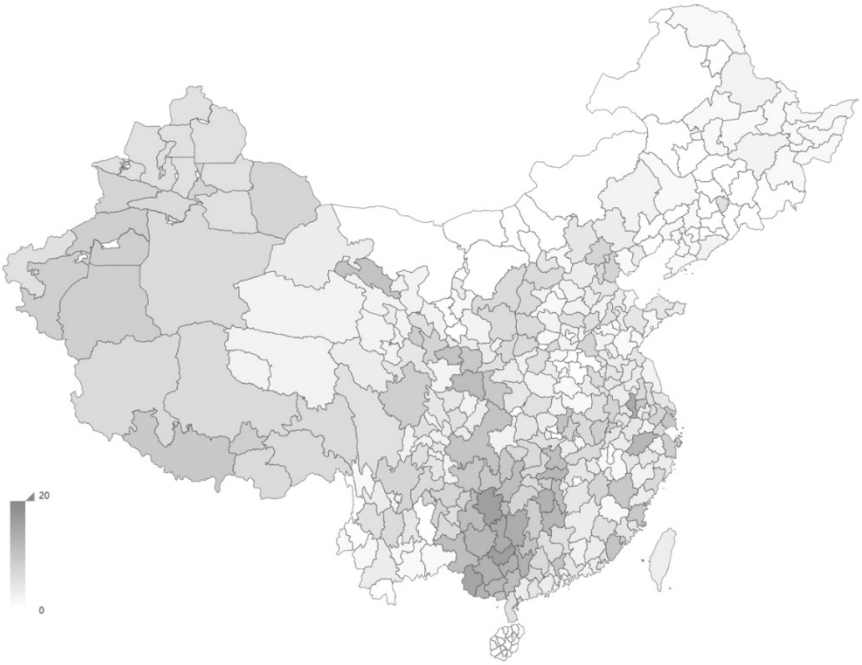


Figure 3. Heat Maps of Rebellion Wars against Qing Dynasty (1639-1912)
Panel A shows the number of rebellion wars against the Qing dynasty at the prefecture level. Panel B shows the number of wars at the province level. The shade darkens with the number of wars.

Panel A



Panel B



Figure 4. Distribution of Field Bureaus of China Securities Regulatory Commission
Panel A shows a map of the field bureaus of China Securities Regulatory Commission. Panel B shows the histogram of *Distance to Regulator*, the distance between a firm and the field bureau of China Securities Regulatory Commission responsible for the firm's region (in kilometers). The width of each bin is 25 kilometers.

Panel A



Panel B

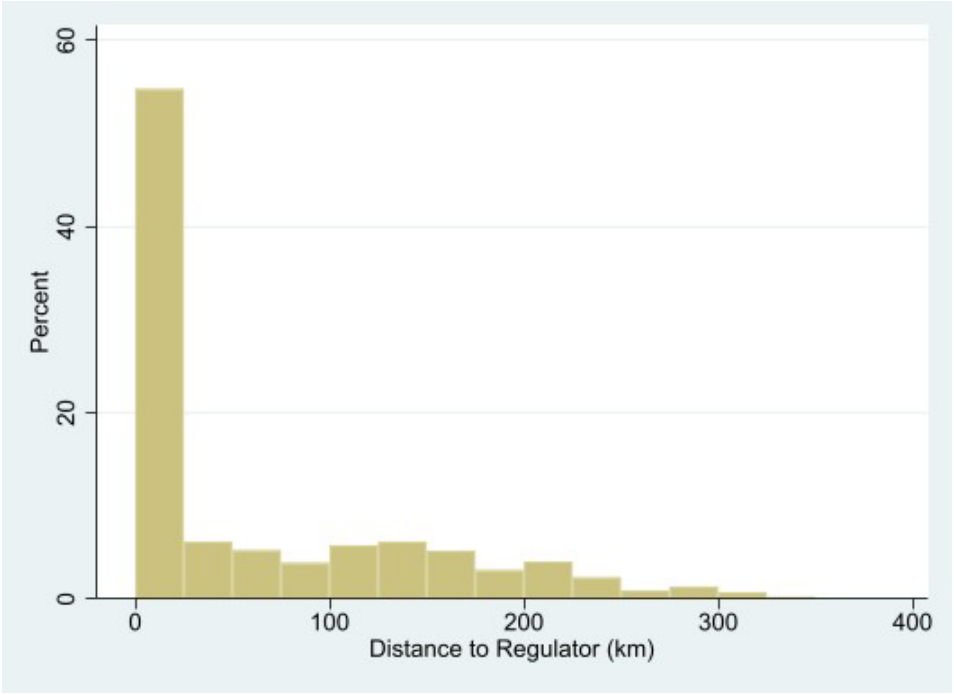


Table 1. Summary Statistics

This table reports the summary statistics of the main variables. Variables are defined in Appendix 1. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

Variable	N	Mean	Std. Dev.	Min	P25	Median	P75	Max
Rating	5,281	5.118	1.238	0.00	5.00	5.00	6.00	7.00
EntX	5,281	16.31	1.253	13.19	15.50	16.24	17.07	20.11
AbnEntX	5,206	0.0153	0.817	-2.209	-0.499	0.0644	0.583	1.830
SOE	5,281	0.519	0.500	0.00	0.00	1.00	1.00	1.00
LnAssets	5,281	23.19	1.198	20.86	22.33	23.05	23.93	26.66
Working Capital	5,281	0.126	0.215	-0.372	-0.0245	0.115	0.271	0.660
Profitability	5,281	3.168	4.081	-8.296	0.899	2.538	5.047	16.35
Leverage	5,281	0.551	0.168	0.161	0.432	0.556	0.673	0.891
Current Ratio	5,281	1.529	1.009	0.275	0.928	1.276	1.802	6.362
Asset Turnover	5,281	0.571	0.435	0.0462	0.271	0.463	0.732	2.357
Cash Flow	5,281	-0.0207	0.365	-1.914	-0.121	0.0243	0.141	0.838
Excess Return (%)	5,281	-0.0793	10.10	-23.45	-5.906	-1.422	4.217	38.35
Beta	5,281	1.151	0.289	0.411	0.964	1.162	1.339	1.876
Sigma	5,281	0.342	0.118	0.134	0.257	0.328	0.407	0.742
Rating Regulation	1,858	0.399	0.490	0.00	0.00	0.00	1.00	1.00
Rebellion Wars	5,281	4.995	3.523	0.00	2.00	4.00	7.00	14.00
Dist. to Regulator	4,116	62.67	77.65	0.107	5.917	15.61	116.7	285.4

Table 2. Abnormal Entertainment Spending and Credit Quality

This table reports the relationship between *AbnEntX* and the firm's *Probability of Default*. *Probability of Default* is the normal transformation of a firm's distance to default (Bharath and Shumway (2008)). Columns 1, 2, 3, and 4 use the current year *t*'s, *t*+1's, *t*+2's, and *t*+3's *Probability of Default*, respectively, as the dependent variable. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. Only firm-years with rating actions are included.

	(1) Prob. of Default (t).	(2) Prob. of Default (t+1)	(3) Prob. of Default (t+2)	(4) Prob. of Default (t+3)
AbnEntX	-0.00148	-0.00264	-0.00245	-0.00246
	(0.00191)	(0.00226)	(0.00249)	(0.00276)
SOE	-0.00757**	-0.0111**	-0.0152***	-0.0160***
	(0.00381)	(0.00455)	(0.00503)	(0.00546)
LnAssets	0.0113***	0.0123***	0.0101***	0.0105***
	(0.00173)	(0.00193)	(0.00210)	(0.00241)
Working Capital	-0.0240	-0.0141	-0.0204	-0.00839
	(0.0146)	(0.0176)	(0.0215)	(0.0216)
Profitability	-0.000583*	0.000645	0.000792*	0.000824
	(0.000348)	(0.000485)	(0.000437)	(0.000545)
Leverage	0.0956***	0.106***	0.120***	0.0984***
	(0.0145)	(0.0167)	(0.0179)	(0.0195)
Current Ratio	0.00984***	0.00810***	0.00912***	0.00838**
	(0.00205)	(0.00268)	(0.00314)	(0.00378)
Asset Turnover	-0.0114***	-0.0209***	-0.0218***	-0.0268***
	(0.00389)	(0.00382)	(0.00436)	(0.00601)
Cash Flow	-0.00383	-0.00914	-0.00621	-0.00344
	(0.00770)	(0.00906)	(0.00933)	(0.0105)
Excess Return	-0.000404***	-0.000098	0.000131	0.000308
	(0.000129)	(0.000173)	(0.000200)	(0.000262)
Beta	0.00437	-0.0114	0.00170	0.00588
	(0.00699)	(0.00744)	(0.00819)	(0.00938)
Sigma	0.0706***	0.0727***	0.0317	0.0248
	(0.0188)	(0.0230)	(0.0224)	(0.0209)
Industry, Year FE	Yes	Yes	Yes	Yes
Observations	5,169	4,556	3,937	3,375
R-squared	0.144	0.150	0.151	0.174

Table 3. Entertainment Spending and Issuer Ratings

This table reports the OLS regression results examining the effect of entertainment expense or abnormal entertainment expense on a firm's credit rating. The dependent variable is *Rating*, the issuer credit rating, with AAA, AA+, AA, AA-, A+, A, A-, and other ratings coded as 7, 6, 5, 4, 3, 2, 1, and 0, respectively. The key independent variables are *EntX* and *AbnEntX* in columns 1 and 2, respectively. *EntX* is the logarithm of travel and entertainment expense. *AbnEntX* is computed from the following regression:

$$EntX = \alpha_i + \gamma_t + \beta_1 Sales + \beta_2 Assets + \beta_3 \frac{Marketing\ Expense}{Sales} + \beta_4 \frac{Assets}{Total\ Revenue} + \beta_5 \frac{Top\ 3\ Exec.Compensation}{3} + \varepsilon$$

where α_i and γ_t are industry and year fixed effects, respectively. The coefficients are estimated on firm-years without a rating action. *AbnEntX* is the residual, ε, computed using observations in rating years. Other variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

Table 3. Continued

	(1)	(2)
EntX	0.0728***	
	(0.0141)	
AbnEntX		0.0290**
		(0.0141)
SOE	0.462***	0.437***
	(0.0290)	(0.0282)
LnAssets	0.741***	0.796***
	(0.0192)	(0.0144)
Working Capital	0.337**	0.360***
	(0.131)	(0.132)
Profitability	0.0446***	0.0451***
	(0.00396)	(0.00402)
Leverage	-2.370***	-2.388***
	(0.116)	(0.118)
Current Ratio	-0.100***	-0.107***
	(0.0215)	(0.0215)
Asset Turnover	0.207***	0.244***
	(0.0423)	(0.0426)
Cash Flow	-0.108***	-0.124***
	(0.0398)	(0.0405)
Excess Return	0.00484***	0.00486***
	(0.00122)	(0.00123)
Beta	0.173***	0.174***
	(0.0533)	(0.0539)
Sigma	-1.043***	-1.030***
	(0.152)	(0.154)
Industry, Agency, Year FE	Yes	Yes
Observations	5,281	5,206
R-squared	0.656	0.652

Table 4. Quasi-Natural Experiment: Regulation of Rating Misconduct

This table reports the effect of abnormal entertainment spending on a firm's credit rating using regulations of rating misconduct as a quasi-natural experiment. Panel A reports the parallel trends test. We define the treated (control) group as firms whose *AbnEntX* is in the top (bottom) quartile. The first row is the average *Rating* of control firms (column 1) and treated firms (column 2) and their difference (column 3) in the year before the rating regulation (2018), i.e., when favor exchanges are at work. The second row is the average *Rating* of control firms (column 1) and treated firms (column 2) and their difference (column 3) in the year after the rating regulation (2020), i.e., when favor exchanges are put out of work. Panel B reports the regression results examining the effect of abnormal entertainment expense on a firm's credit rating before and after the 2019 government regulation of rating practices. The dependent variable is *Rating*. *Rating Regulation* is a dummy variable that equals 1 if the year-month is after August 2019, when the regulation shock hit. *Low Pre-regulation AbnEntX* is a dummy variable that equals 1 if a firm's *AbnEntX* in 2018 (before the rating regulation) is in the bottom quartile. Other variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2018 and 2020. For a given firm, only years with rating actions are included.

Table 4. Continued

Panel A

	(1) Control	(2) Treated	(3) Difference
2018 (Favor exchanges at work)	5.24	5.56	-0.32**
2020 (Favor exchanges not at work)	5.47	5.36	0.11

Panel B

	(1)	(2)
AbnEntX	0.0837**	
	(0.0360)	
AbnEntX × Rating Regulation	-0.0884**	
	(0.0438)	
Low Pre-regulation AbnEntX		-0.157**
		(0.0715)
Low Pre-regulation AbnEntX × Rating Regulation		0.199*
		(0.105)
Rating Regulation	-0.216	-0.424**
	(0.132)	(0.210)
SOE	0.582***	0.561***
	(0.0650)	(0.0678)
LnAssets	0.712***	0.687***
	(0.0281)	(0.0325)
Working Capital	1.006***	1.003***
	(0.279)	(0.323)
Profitability	0.0383***	0.0442***
	(0.00728)	(0.00866)
Leverage	-2.724***	-2.680***
	(0.221)	(0.257)
Current Ratio	-0.226***	-0.196***
	(0.0420)	(0.0500)
Asset Turnover	0.276***	0.192**
	(0.0804)	(0.0942)
Cash Flow	-0.123	-0.0720
	(0.0750)	(0.0855)
Excess Return	0.0108***	0.0142***
	(0.00269)	(0.00332)
Beta	0.383***	0.503***
	(0.109)	(0.130)
Sigma	-1.949***	-2.547***
	(0.308)	(0.405)
Industry, Agency, Year FE	Yes	Yes
Observations	1,810	1,466
R-squared	0.633	0.618

Table 5. 2SLS: Rebellion Wars against Qing Empire (1636–1912) as Instrumental Variable
This table reports the 2SLS regression results examining the effect of abnormal entertainment spending on a firm's credit rating. *AbnEntX* is instrumented by *Rebellion Wars*, the number of rebellion wars against the ruling Qing Empire (1636–1912) in the prefecture where the firm is located. Column 1 reports the first stage. Column 2 reports the second stage, where the dependent variable is *Rating*. Variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

	(1) First-Stage Y: AbnEntX	(2) Second-Stage Y: Rating
AbnEntX		1.463***
		(0.563)
Rebellion Wars	0.0104***	
	(0.00337)	
SOE	-0.366***	0.951***
	(0.0257)	(0.208)
LnAssets	0.127***	0.615***
	(0.0135)	(0.0756)
Working Capital	0.322***	-0.120
	(0.114)	(0.274)
Profitability	-0.00372	0.0506***
	(0.00337)	(0.00672)
Leverage	0.0448	-2.449***
	(0.112)	(0.193)
Current Ratio	-0.0738***	0.00229
	(0.0215)	(0.0561)
Asset Turnover	-0.0897***	0.367***
	(0.0347)	(0.0812)
Cash Flow	-0.104***	0.0291
	(0.0368)	(0.0883)
Excess Return	-0.000917	0.00617***
	(0.00108)	(0.00199)
Beta	-0.104**	0.329***
	(0.0457)	(0.102)
Sigma	0.349***	-1.524***
	(0.124)	(0.300)
Industry, Agency, Year FE	Yes	Yes
Observations	5,206	5,206
First Stage F-statistic	9.540	
R-squared	0.1566	0.6554

Table 6. Regulator Monitoring: Distance to Local Branch of CSRC

This table reports the regression results examining the effect of abnormal entertainment spending on a firm's credit rating, considering the varying distance between the focal firm and its local branch of the China Securities Regulatory Commission. The dependent variable is *Rating*. *Distance to Regulator* is the distance between the firm and the local branch of China Securities Regulatory Commission. *Long Distance* is a dummy variable that equals 1 if *Distance to Regulator* is above the sample median. Other variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

	(1)	(2)
AbnEntX	0.0417**	-0.000735
	(0.0170)	(0.0208)
Distance to Regulator	-0.0312***	
	(0.00815)	
AbnEntX × Distance to Regulator	0.0192**	
	(0.00869)	
Long Distance		-0.0967***
		(0.0304)
AbnEntX × Long Distance		0.0808***
		(0.0302)
Other Controls	Yes	Yes
Industry, Agency, Province, Year FE	Yes	Yes
Observations	4.057	4,057
R-squared	0.667	0.667

Table 7. Benefits of Rating Inflation via Abnormal Entertainment Spending: Cost of Debt and Debt Capacity

This table reports the regression results examining the effects of abnormal entertainment expense on debt financing cost and debt capacity. In column 1, the dependent variable is *Bond Yield*, the bond's yield to maturity (in %). In column 2, the dependent variable is *Yield Spread*, the difference in yield to maturity (in %) between the bond and non-tax-exempt Chinese government bonds with the same characteristics. When an issuer is assigned a new rating, we use the first monthly closing quote of the bond after that rating date to measure the yield and the spread. In column 3, the dependent variable is *Issuance Amount*, which is the logarithm of Yuan amount issued in a bond offering. In column 4, the dependent variable is *Large Issue*, a dummy variable that equals 1 if the issuance amount is above the annual median. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020.

	(1) Bond Yield	(2) Yield Spread	(3) Issuance Amt	(4) Large Issue
AbnEntX	0.370	0.295	0.106	-0.0767
	(0.387)	(0.395)	(0.163)	(0.0734)
Rating	-0.367***	-0.343***	0.373***	0.133***
	(0.0884)	(0.0729)	(0.0647)	(0.0347)
AbnEntX × Rating	-0.0260	-0.0153	-0.0437	0.00138
	(0.0680)	(0.0689)	(0.0362)	(0.0159)
Controls	Yes	Yes	Yes	Yes
Firm, Year-Month FE	Yes	Yes	Yes	Yes
Observations	2,696	2,696	1,218	1,218
R-squared	0.779	0.768	0.790	0.623

Table 8. Effects of Abnormal Entertainment Spending under Different Credit Market Conditions

This table reports the regression results examining the effect of abnormal entertainment spending on a firm's credit rating, considering different bond market and bank market conditions. The dependent variable is *Rating*. *Bank Branches* is the number of bank branches per 10,000 people in the province where the firm is located. *Bond Market Issuance Vol.* is the total amount of bond issuance by non-governmental and non-financial entities in the prior month. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

	(1)	(2)	(3)
AbnEntX	0.0366**	0.0319**	0.0323**
	(0.0155)	(0.0157)	(0.0140)
Bank Branches	0.0119	0.119	
	(0.0353)	(0.142)	
AbnEntX × Bank Branches	-0.101**	-0.103**	
	(0.0419)	(0.0431)	
Bond Market Issuance Vol.			0.000494
			(0.0394)
AbnEntX × Bond Market Issuance Vol.			-0.0617***
			(0.0205)
Other Controls	Yes	Yes	Yes
Industry, Agency, Year FE	Yes	Yes	Yes
Province FE	No	Yes	No
Observations	4,472	4,472	5,206
R-squared	0.655	0.662	0.653

Table 9. Abnormal Entertainment Spending and Profitability

This table reports the regression results examining the effects of abnormal entertainment spending on the firm's return on assets (*ROA*) and return on equity (*ROE*). *ROA* (*ROE*) equals the firm's net income divided by total assets (equity). Variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020.

	(1)	(2)	(3)	(4)
	ROA	ROA	ROE	ROE
AbnEntX	-0.0795	-0.0800	0.205	0.207
	(0.0776)	(0.0795)	(0.261)	(0.270)
Rating	0.550***	0.550***	1.848***	1.846***
	(0.122)	(0.122)	(0.441)	(0.441)
AbnEntX × Rating		0.00921		-0.0500
		(0.0897)		(0.356)
Other Controls	Yes	Yes	Yes	Yes
Industry, Agency, Year FE	Yes	Yes	Yes	Yes
Observations	6,892	6,892	6,892	6,892
R-squared	0.356	0.356	0.201	0.201

Internet Appendix

Table A1. Credit Rating Agencies and Credit Ratings in China

Panel A reports the accredited domestic credit rating agencies in China, their accreditations by major regulators, and their business models. PBoC stands for the People's Bank of China, the central bank. CSRC stands for the China Securities Regulatory Commission, the Chinese counterpart to the Securities and Exchange Commission in the U.S. NDRC stands for the National Development and Reform Commission, a government agency overseeing reform of state-owned enterprises. Panel B reports the breakdown of ratings issued by each rating agency between 2010 and 2020. Panel C reports scandals in China's bond markets involving bribery and/or credit rating agencies between 2010 and 2020.

Panel A: Rating Agencies

CRA	Sub-CRAs	Full name	PBoC	CSRC	NDRC	Business model
Chengxin	ChengxinS	China Chengxin Security Rating Co, Ltd.	No	Yes	No	Issuer-pay
	ChengxinI	China Chengxin International Credit Rating Co., Ltd.	Yes	No	Yes	Issuer-pay
Lianhe	LianheR	Lianhe Rating Co., Ltd.	No	Yes	No	Issuer-pay
	LianheC	Lianhe Credit Information Services Co., Ltd	Yes	No	Yes	Issuer-pay
Brilliance		Shanghai Brilliance Investors Service Co., Ltd.	Yes	Yes	Yes	Issuer-pay
Pengyuan		Pengyuan Credit Rating Co., Ltd.	No	Yes	Yes	Issuer-pay
Dagong		Dagong Global Credit Rating Co., Ltd.	Yes	Yes	Yes	Issuer-pay
Orient		Golden Credit Rating International Co., Ltd.	Yes	Yes	Yes	Issuer-pay
FarEast		Shanghai Far-East Credit Rating Co., Ltd.	No	Yes	Yes	Issuer-pay
CBR		China Bond Rating Corporation	Yes	No	No	Investor-pay

Table A1. Continued

Panel B: Ratings

Rating	Dagong	Orient	LianheR	LianheC	Brilliance	ChengxinI	ChengxinS	Pengyuan	Total
AAA	95	8	42	91	84	289	120	9	738
AA+	134	25	153	142	185	213	137	61	1050
AA	125	84	484	181	393	313	283	394	2257
AA-	122	23	94	48	154	119	49	220	829
A+	50	8	47	43	33	45	10	48	284
A	4	0	8	13	6	4	7	8	50
A-	0	1	0	2	3	3	0	0	9
<A-	4	5	15	3	6	11	5	15	64
Total	534	154	843	523	864	997	611	755	5281

Panel C: Recent Scandals

Year	Institution	Issuer	Misconduct
2011	ChinaLin Securities	New Head Line	New Head Line provided help for ChinaLin Securities in undertaking corporate bond underwriting business. After the successful issuance of bonds, ChinaLin Securities gave the company 5 million yuan as a rebate.
2017–2018	Dagong Global Credit Rating	Tunghsu Group, Neoglory (China) Holdings Group, Nantong No.3 Construction Group, etc.	Dagong Global Credit Rating, while providing credit rating services for enterprises, directly offered consulting services to enterprises and charged high fees.
2018	Shenwan Hongyuan Securities	Zhonghengtong (Fujian) Machinery Manufacturing Co., Ltd	The staff of Shenwan Hongyuan Securities who issued the private placement bond for Zhonghengtong illegally received the benefit fee of 1.5 million yuan paid by the company.
2019	Golden Credit Rating	Not disclosed	Cui Runhai, general manager of Golden Credit Rating Jiangsu Branch, conspired with others to help an enterprise in Jiangsu raise its credit rating and collect huge benefits.

Table A2. Regression to Estimate Abnormal Entertainment Expense

This table reports the regression through which *AbnEntX* is computed:

$$EntX = \alpha_i + \gamma_t + \beta_1 LnSales + \beta_2 LnAssets + \beta_3 \frac{Marketing\ Expense}{Sales} + \beta_4 \frac{Assets}{Total\ Revenue} + \beta_5 Ln \frac{Top\ 3\ Exec.Compensation}{3} + \varepsilon$$

where α_i and γ_t are industry and year fixed effects, respectively. The coefficients are estimated on firm-years without a rating action. *AbnEntX* is the residual, ε, computed using observations in rating years. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

LnSales	0.474***
	(0.0333)
LnAssets	0.132***
	(0.0342)
Marketing Expense/Sales	1.611***
	(0.216)
Assets/Total Revenue	0.0298**
	(0.0131)
Ln Avg. Exec. Compensation	0.254***
	(0.0236)
Constant	-0.951**
	(0.374)
Observations	9,551
R-squared	0.499

Table A3. Abnormal Entertainment Spending and Misconduct of Bribery

This table reports the relationship between *AbnEntX* and the firm's bribery behavior. We regress a firm's bribery scandals revealed by news media in the year after the rating assignment on the firm's abnormal entertainment expense in the year of rating. *Revealed Cases* is the number of bribery cases associated with the firm that have been reported by major news media. *Investigated* is a dummy if *Revealed Cases* is positive. Column 1 uses *Revealed Cases* as the dependent variable. Columns 2 and 3 use OLS and Logit model, respectively, with *Investigated* as the dependent variable. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

	(1) Revealed Cases (t+1)	(2) Investigated (t+1) OLS	(3) Investigated (t+1) Logit
AbnEntX	0.0318**	0.0155*	0.0765*
	(0.0145)	(0.00808)	(0.0427)
SOE	0.0303	0.0301*	0.157**
	(0.0294)	(0.0159)	(0.0785)
LnAssets	0.0935***	0.0704***	0.367***
	(0.0143)	(0.00770)	(0.0402)
Working Capital	0.0673	0.111*	0.566*
	(0.109)	(0.0652)	(0.325)
Profitability	0.000317	0.00188	0.0106
	(0.00340)	(0.00195)	(0.0101)
Leverage	-0.155	-0.116*	-0.648**
	(0.113)	(0.0632)	(0.324)
Current Ratio	-0.0268	-0.0152	-0.0915
	(0.0213)	(0.0121)	(0.0647)
Asset Turnover	0.0888**	0.0272	0.144
	(0.0382)	(0.0204)	(0.0999)
Cash Flow	-0.00270	-0.00332	-0.0315
	(0.0318)	(0.0192)	(0.100)
Excess Return	0.000900	0.000594	0.00275
	(0.00115)	(0.000637)	(0.00322)
Beta	-0.0599	-0.0343	-0.181
	(0.0479)	(0.0266)	(0.136)
Sigma	0.0436	-0.0187	-0.0994
	(0.122)	(0.0703)	(0.362)
Industry, Year, Agency FE	Yes	Yes	Yes
Observations	5,206	5,206	5,187
R-squared	0.111	0.139	0.138

Table A4. Validation Tests of Instrument

This table reports the regression results examining the effect of *Rebellion Wars* on key firm characteristics and local GDP per capita. *Rebellion Wars* is the number of rebellion wars against the ruling Qing Empire (1636–1912) in the prefecture where the firm is located. Other variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

	(1)	(2)	(3)	(4)	(5)
	LnAssets	Working Capital	Profitability	Leverage	GDP per capita
Rebellion Wars	-0.00542	0.00115	-0.00441	-0.000261	0.0447
	(0.00383)	(0.0008)	(0.0171)	(0.0006)	(0.0579)
Year, Industry, Agency FE	Yes	Yes	Yes	Yes	No
Observations	5,281	5,281	5,281	5,281	310
R-squared	0.402	0.393	0.116	0.327	0.002

Table A5. Validation Test of Distance to Regulator

This table reports the regression results examining the effect of *Distance to Regulator* on *Revealed Cases*. *Revealed Cases* is the number of corruption cases associated with the firm that are reported by major news media in the year. *Distance to Regulator* is the distance between the firm and the local branch of the China Securities Regulatory Commission responsible for the firm's region. Other variables are defined in Appendix 1. In parentheses are robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. The sample consists of non-financial public firms with a long-term issuer credit rating between 2010 and 2020. For a given firm, only years with rating actions are included.

Dependent Variable: Revealed Cases	(1)
Distance to Regulator	-0.0344***
	(0.00860)
SOE	0.0192
	(0.0328)
LnAssets	0.106***
	(0.0164)
Working Capital	0.0258
	(0.128)
Profitability	0.000394
	(0.00425)
Leverage	-0.00444
	(0.132)
Current Ratio	0.00627
	(0.0271)
Asset Turnover	0.133***
	(0.0440)
Cash Flow	0.00927
	(0.0389)
Excess Return	0.000572
	(0.00130)
Beta	-0.134**
	(0.0590)
Sigma	0.293*
	(0.163)
Industry FE	Yes
Observations	4,115
R-squared	0.106